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Why Religious People Believe What They Shouldn't: Explaining Theological Incorrectness in South Asia and America

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WHY RELIGIOUS PEOPLE BELIEVE WHAT THEY SHOULDN'T: EXPLAINING THEOLOGICAL INCORRECTNESS IN SOUTH ASIA AND AMERICA

by

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Cross-cultural descriptions of religious thought and behavior in South Asia and America show that people commonly hold ideas and perform actions that seem to be not only conceptually incoherent but also "theologically incorrect" by the standards of their own traditions. For example, South Asian Theravada Buddhists are taught that the historical Buddha is unavailable because he attained enlightenment and achieved *parinirvana* ("complete extinction") and yet conceptually and ritually represent him as if he is present and available for petition. Similarly, American Protestants represent the Christian God as having absolute divine sovereignty and yet reveal confidence in an inner locus of control.

Furthermore, despite their theological commitments, people in both cultures commonly attribute event-outcomes to the forces of luck and perform actions that try to influence luck, even though luck implies that events are beyond human control. Even more perplexing, people might in turn attribute luck to the wills of superhuman agents, which would mean that luck is not actually luck at all.

The widespread existence of such theological incorrectness cries out for explanation because it challenges both scholarly theories and conventional wisdom

about how religion works. Religion, it seems, is not simply learned from culture *in toto*, nor does it determine worldviews. Rather, the actual thoughts and behaviors that religious people have are constrained by how the human mind-brain processes information as much as they are by the contents of cultural systems that people happen to be taught.

This dissertation synthesizes research from the cognitive sciences and employs it to explain theological incorrectness. Research findings demonstrate that human beings, regardless of their religious commitments or cultural environments, employ inductive reasoning for most cognitive tasks and therefore infer representations about the world and its working from both culturally learned ideas and from cognitively constrained tacit knowledge, even though, deductively, information from those domains might not cohere systematically. This explains why religious people commonly think and do things they "shouldn't," as well as why religious systems undergo constant transformation.

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CHAPTER ONE

INTRODUCTION

This dissertation explores something that we commonly encounter in our everyday lives. I happen to see it as a problem, which is why I've devoted a large project to explaining it. The problem that this dissertation explores is simply, "Why do people believe what they shouldn't?" I don't mean, of course, why do people believe things with which I don't agree. I mean why do people believe things they shouldn't according to the tenets of their own beliefs? This is the phenomenon (taking as my point of departure Justin Barrett's [1999] notion of "theological correctness") I wish to call "theological incorrectness" – when people think and do what is in direct conflict with the established theologies of the religious traditions to which they ascribe.

Why is this important? It is important because, for one, it teaches us the lesson that religion doesn't really cause much. That's right, religion doesn't do anything to people. Religions don't cause people to think whatever it is they think. Religions don't cause people to do whatever it is they do. This dissertation offers a cognitive explanation for how and why. As we shall see, religious ideas inform actions, but "religions" are abstract technical concept with no physical properties, which,

therefore, cannot cause anything. This should instruct us to be weary of any culturally deterministic claims akin to "people's actions are a result of their environment."

The project itself is divided into eight chapters. Chapters Two and Three explore the ways in which professional scholars of religion have thought about religion in the past, such as the causes of its existence, the role of its functions, and the consequences of it power (an assumption that shall be challenged). We shall peruse the history of the academic study of religion for the purpose of identifying its common assumptions and its mistakes (in thinking about religion, that is). Chapter Four reviews the cognitive science of religion and offers, for my money, the best way (thus a remedy) of explaining religion – as a natural product of human cognition.

Chapters Five through Seven employ discoveries about human behavior from the cognitive sciences to explain some recurring and enigmatic case studies from the world religious traditions of South Asian Buddhism and Protestant Christianity in America. Specifically, Chapter Five explains one of the oldest problems in the book (pun intended) for scholars of religion, that of "the Buddhist question." Religion has something to do with superhuman agents, yet Theravada Buddhism is purportedly atheistic. Thus, scholars familiar with Buddhism plead, religion cannot be defined as the belief in deities. As we shall see, (1) this is a specious account of Theravada Buddhism, (2) like all humans, Buddhists sometimes say one thing at one time, and another at a different time, and (3) Buddhist are capable of "theological incorrectness" (or "Buddhalogical incorrectness" to be more accurate), which means

that they might say that they don't worship the Buddha, but they most certainly treat him (and others) as superhuman agents.

Chapter Six explores the tension in Protestant Christianity between divine sovereignty and free will. Specifically, Chapter Six explores this tension as it has been played out in history, namely the transformation of the English colonies (later the United States of America) from a Puritanical Calvinist society (preaching predestination – the logical conclusion of divine sovereignty) to an Arminianist one (preaching divine sovereignty and free will). We shall provide an epidemiological framework for understanding the spread of Arminianist ideas during the period of time in the 1730s and 40s known as "The Great Awakening," and we shall supplement that historical epidemiology with recent work in cognitive psychology to show that though theologically correct, absolute divine sovereignty is an inherently unstable (i.e. it is maximally counterintuitive and therefore cognitively burdensome) representation that is incapable of being employed in "on-line" judgments. (see Barrett 1999)

Chapter Seven then explores the widespread belief in luck. When I say widespread, I mean just that. We have yet to find a culture whose members don't represent life's events as lucky or unlucky, fortunate or unfortunate. Luck is truly a cross-culturally recurring representation. Yet, luck is in direct violation of learned theology (all theologies as far as I can tell). Luck implies that events are beyond our control, and such a notion directly contradicts the very heart of religion, that something or someone like a culturally postulated superhuman agent of some sort is

in control (and available for human engagement). So it should follow that religious people ought never attribute life's events to luck...yet evidence disconfirms this. If that were not perplexing enough, people often perform rituals that are designed precisely to bring about good luck (or bad luck for an enemy), despite the tacit conclusion that in luck, all of life's events are beyond human control.

Chapter Eight concludes the dissertation by providing some brief reflections on how we ought to respond to the ubiquity – and tenacity – of theological incorrectness. Some feel that it is an impediment to progress, either to personal progress (living a superstitious life can be disastrous, given our propensities to gamble with money, for adultery, racism, sexism, and so forth) or social progress that must be removed, for example, through science education (e.g. Nancy Reagan's appeals to astrology might have influenced her husband to drop the bomb on some unsuspecting Third-World non-rogue nation; Al-Qaeda's mass murder of innocent civilians is believed, by them, to be divinely sanctioned, etc.). Others suggest that because it is natural, it is inevitable. Moreover, if it is natural, we cannot control it whether we would want to or not. A third option, which I find myself supporting on Mondays and Wednesdays (but not always on Fridays...and surely not on Sundays) is that while theological incorrectness (TI) is natural, common, and cross-cultural, it is certainly not immutable. Regardless, the comparative study of religion must be informed by discoveries from the cognitive sciences so that it can become (and stay) a legitimate scientific enterprise that is suitable to the modern university.

CHAPTER TWO

THE PROBLEM AND ITS BACKGROUND

There is an old joke about religion that never bombs, regardless of audience. It goes like this: "If you ask two people of the same religion one question, you'll get three answers." You can tell this joke to Jews, to Buddhists, to Muslims, to Wiccans, and to Christians, and chances are that they'll all respond, with a slight smile... "that's true."

But why is that true? And why is it true for seemingly everyone? If religions teach people what to think about the world, and what they teach is supposed to be true, then why don't their adherents listen very well (a fact that is known all too well by clergy)? To be blunt, why do people invent their own versions of religion in whatever ways that seem to suit their fancies? If religion is about "Absolute Truth," then why are there so many different, competing, contradictory versions of it...even within one single group?

The above joke about religion is funny because it does what all jokes do. It pokes fun at "the ridiculous element in something." (Mish 1991) Two people belonging to the same religion yet having different beliefs is, in a sense, ridiculous, especially when one considers the truth-claims made by the theological contents of religious systems. But though its occurrence at all is ridiculous, what is most

interesting is that it occurs everywhere. This phenomenon, which we shall call "theological incorrectness," (TI) recurs across cultures.

Most of us are well aware of the existence of TI, but dismiss it as an unfortunate but harmless bit of folk religion. In fact, because it is so common most people don't consider it to be weird at all. At second glance, however, TI challenges every bit of conventional wisdom we have about what religion is and how it works. As the above joke suggests, and plenty of other evidence confirms, we do not simply learn religion from our culture or society. Rather, we actively generate and transform it. We might even say, with fashionable spin, that religion is *performative*.

Religion is performative in two ways: (1) we generate religious representations in our minds (an internal performance), and (2) we communicate (in stories, rituals, etc.) those representations to others. The latter results in a transformation of religious ideas – sometimes slight, other times considerable – because when others see and hear (i.e. "experience") our representations, they internalize them. And the internalization of public representations starts the whole process over again. (Sperber 1996)

Though common, the generation and transformation of religious representations by individuals is not always harmless. Consider religious violence. The terrorists who hijacked several jet planes and crashed them into large U.S. buildings on September 11, 2001 and killed thousands of innocent global citizens professed to be Muslims, apparently shouting "*Alla 'u 'akbhar*" ("God is great!") at the moment of impact. Afterward, many asked (1) how could it be that the religion of

Islam, justified (read: "caused") such violence? Or, (2) if Islam was, as other Muslims and Muslim-sympathizers pleaded, "a religion of peace," how could these particular individuals twist their religion's teachings to such horrific ends? Religion, we assume, isn't supposed to work that way. So why does it?

These questions, which millions asked instinctively after September 11, are the right kinds of questions we should be asking about the role of religion in our world. But these questions require more than stock-in-trade answers. Ironically, the best answers come from neither the religions themselves nor from simple folk psychology (the natural way humans "theorize" about agents). The former is not a sound method of investigation for obvious reasons...it leads us back to square one where the answer would depend on whom you ask. Yet, folk psychology won't get us very far either because we cannot simply presume that we know instinctively why people do what they do (no matter how emotionally satisfying that may be), for most people simply aren't explicitly aware of the reasons for their thoughts and actions in the first place (this point was made poignantly by comedian Bill Cosby whose children, he claimed, had "brain-damage" because whenever he caught them misbehaving and asked them why they did what they did, they would invariably respond, with genuine sincerity, "I don't know!"). In most cases, our thoughts and actions simply make sense at the time.

Furthermore, there are other limitations in using folk psychology to understand why (religious) people think what they think and do what they do that create real problems for students of human behavior because ideas that make sense to

some can be nonsense to others. As the old saying goes, one person's garbage is another's treasure. This is commonly the case with studying *someone else's* religion. What other people think and do often seems to be nonsense to us while our own behavior seems to be perfectly reasonable (but to others...?!).

To account for why people do what they do and think what they think, we will have to employ a more scientific method because neither the insider's view(s) nor folk psychology will work. Science proves to be much more useful because it reaches "below the surface," so to speak. It does not settle for appearances. Little if anything, for scientists, is obvious. One grand (sometimes painful) lesson we have learned over the years is that the world isn't necessarily the way it appears to be. Human perceptions are prone to false beliefs. For example, the sun does not move around the earth, despite our seeing it do just that day after day. Or, despite our seeing obvious in-group human differences like skin color, hair type, languages spoken, etc. genetics is revealing that we have much more in common than those appearances suggest. And so it shall prove that a scientific study of religious behavior reveals the proximate causes of behavior that can explain some of the most puzzling aspects of religion in our world (including the very existence of religion itself).

One thing that becomes clear when we begin to apply the science of human behavior to religion is that religious behavior is constrained by the cognitive mechanisms involved in everyday non-religious behavior. We often think of religion as special, as different, as whatever is set aside as distinct. In fact, it is actually dependent upon very basic, not-so-special (in the religious sense) mechanisms –

namely the cognitive organs in the human brain. Let me provide an example, one that addresses the problem of TI described above. When people make what Justin Barrett has called "on-line" (i.e. rapid, tacitly informed, and cognitively constrained) representations, they often employ an inductive, not deductive, process of reasoning. Deductive reasoning involves starting with a general principle or set of principles and deducing a conclusion logically from those principles. Theological creeds and dogmas are often deduced. For example, John Calvin deduced that if God is all-knowing and all-powerful, then he knows and controls the past, the present, and the future...and therefore (deduction)...our fates are pre-determined. If, as we tend to assume, religious people are (or at least should be) deductive thinkers then every idea they hold, or every question they answer, should be restricted to logically deduced conclusions. Are they?

There are scores of members of Calvin's Reformed Church tradition in Protestant Christianity today that constitute an excellent pool of experimental subjects. And, not surprisingly, data regarding what they believe reveals that they don't believe this dogma very much at all (more accurately, they seem to believe it at some times, but not others) even though when asked, they will say that they do. Justin Barrett has termed this phenomenon "theological correctness" because he found that Christians answer with "appropriate" answers when required, but infer otherwise when asked different kinds of questions (in task-specific experiments). (Barrett 1999) So, even orthodox Calvinists have beliefs they're not supposed to have. Why? As we shall see, it is quite natural to do so.

TI comes naturally to our brains because we spend much of our time thinking inductively. Inductive reasoning involves constructing general principles as explanations for particular events, such that if the principles are true, the event or phenomenon in question is explained. For example, imagine that person A, a Calvinist Protestant, is late for work and so speeds down the highway at a rate much faster than the legal limit allows for but then is suddenly forced to slow down because person B in front of her is driving very cautiously. Just as they approach an oncoming intersection, for which they have a green light, a drunken driver speeds through the red light from the adjacent street and kills person B. Truly saddened by the event, person A says that person B's untimely death was a tragic bit of bad luck. By contrast, though, God (or one of God's servants, a minor superhuman agent like an angel, perhaps) was "watching out" for her. In this hypothetical example, person A has reasoned (inductively) to conclusions that seem to contradict her otherwise held religious belief that God's divine sovereignty pre-determines all fates.

This kind of thinking seems irrational to an outsider. However, it is actually quite natural. We spend the majority of our time thinking inductively because inductive reasoning is efficient—it does the most work with the least effort in the shortest time. It explains everything that needs to be explained at the moment without forcing the person to go through all of the logical steps of deduction to produce an answer. As a result of its efficiency it is very useful for most of the everyday situations we encounter. So, it should come as no surprise that when we are forced to think religiously we employ the same means of "explanation."

The scientific study of human behavior will take us a long way toward a sound and thorough understanding of religious behavior. Since religion, TI included, is natural, we can employ a "naturalistic" approach to our study. In other words, TI is susceptible to analysis by means of the methods employed by the natural sciences. Before we dig in, though, we should first traverse through the treacherous terrain of theories about religion that are already floating out there so that we can overcome many of their shortcomings. Students are often told that we study history to avoid its mistakes. The same principle applies here. In fact, that principle might be even more pertinent in the case of religion – for the reality of religion's role in our global world demands that we figure it out sooner rather than later. The events of September 11, 2001 reveal that our very lives might depend on it.

The Early Scientific Study of Religion

Historical perspective cautions us to proceed with humility. A scientific study of religion has been attempted before, and with considerable problems. Furthermore, using science to study religion is not uncontroversial, just like the scientific study of sexuality, virtue, violence, literature, art, or any other seemingly organic aspect of human life. Science and religion are thought to be, according to conventional wisdom, separate domains...arguably even antagonistic to one another. While science is descriptive – it limits itself to what we (can) know about the world, religion is prescriptive – it tells us what we should believe about the world. Religion deals with the "ought" (e.g. what we ought to think, what we ought to do, etc.). Science deals

with the "is" (e.g. what a human's reproductive organ is, what racism is, what the process of photosynthesis is, etc.). Often the two are incompatible, for you can neither deduce an "ought" from an "is," nor an "is" from an "ought." (Ridley 1997)

Of course there are some scientists who are religious and some religious people who champion science, but these people seem to be in the minority. Many scientists (not to mention philosophers and, ironically, theologians) dismiss religion as nothing but superstition that results from not thinking about things properly. On the other hand, religious people often dismiss science as "meaningless"...a cold, heartless, and ultimately futile attempt to explain why things really happen. For religious insiders seek explanations of the "big" questions like "where did we come from?" and "what happens to us when we die?" Scientists, in contrast, seek the "small" questions like "how do cells divide?" and "what happens when two elements are forcibly combined in a finite space?" Some people even go so far as to say that science offers nothing of important value to humanity because it cannot, in the minds of its critics, provide an ultimate cause. It is stuck in the world of proximate causes.

In other ways, however, religion and science are quite alike. Both require cognitive mechanisms to process data into representations of what the world seems to be like. And we see in both domains a difference between folk representations and reflective theories. Theology is to religion as actual science is to folk science.

Furthermore, some people believe that just as science itself is susceptible to scientific analysis, so is religious behavior. The scientific study of religion makes religious behavior, including ideas and actions, the object of inquiry for the purposes

of understanding the causal origins and functions of religion in our world. Keeping in line with the larger goals of science, such scholars believe that religion can be explained.

This is not the first and surely not the last attempt to use the scientific method in the study of religion. In fact, people have been studying religion scientifically for over a century, although mostly in universities (which is why the general public is mostly unaware of the means and ends of this discipline). Scholars in the 19th century generated many theories about religion that they believed identified the origin, in terms of history and of the causes of religion, as well as its behavior function(s). These scholars were able to generate broad theories of religion as a cross-culturally recurring feature of human behavior because travelers had gathered data—through archeology, historical recovery of texts, personal observation, and so forth—that revealed religions as having many similarities and of course many differences (mostly in content). In response to the growth of science in Europe and the expansion of the human world to include non-European peoples in the New World, the comparative scientific study of religion was born. This tradition provides inspiration and justification for the continued use of "methodological atheism" to study religion. (Berger 1969)

Of course, like all sciences, much of what those scholars thought has been discarded over the years. In fact, most of what we once thought about religion is now considered obsolete. Nonetheless, the failures of these early scholars were of product, not of process. In other words, they turned out to be mostly wrong in their

conclusions but quite right in their general approach. To borrow a distinction from Noam Chomsky, religion has been elevated from a mystery to a problem. (Boyer 1994, 2001) This is good news because mysteries are insoluble but problems are tractable.

It's taken decades of serious scholarship to generate that confidence, and a perusal of the debates that got us to where we are today is illuminating. The scientific study of religion has accomplished three goals since its inception: (1) it has vastly improved our substantive knowledge of the contents of the world's religious systems; (2) it has generated theories about religious behavior at large that have given us a rich sense of why people all over the world seem prone to believe religious ideas, to perform religious actions, and to join religious communities, and (3) it has allowed us to reflect upon what the consequences of religion has on other aspects of our lives. Gained slowly but surely, these accomplishments have given us a better sense for why religious people commit violence despite what their theological traditions teach, for how religion affects race, class, gender, ethnicity, etc., for how religious ideas shape cultural attitudes and norms, and so forth.

The history of the study of religion reveals that early on (late 18th – early 20th centuries) scholars were divided into two camps over their differing views of what religion was and therefore how we could account for it. These early "modernists" (labeled as such by "post-modernists" who came to the fore of the field in the 1970s) were either:

(1) *naturalists* – those who believed that religion was a by-product of natural causes, or...

(2) *non-naturalists* – those who believed that religion had non-natural origins.

The non-naturalists can be further divided into two sub-groups:

(2a) *socio-culturalists* – those who believed that religion involved meaning, was generated at the level of "society" or "culture," and therefore was in a domain distinguishable from nature, and...

(2b) *transcendalists* (sometimes called "super-naturalists") – those who believed that religion was a product of the human interaction with a supernatural reality, which was labeled variously as as the "Holy," the "Numinous," or the "Sacred."

In the remainder of the chapter, we shall review the different approaches of paradigmatic scholars in each camp. The theories and methods they employed are diverse and interesting, but most importantly, instructive – we will be in a better position to understand the problems with folk psychological and with insider accounts of religion.

Social Science and The Enlightenment Paradigm

Scholars have only begun to scratch the surface of the very complex world of religious behavior, and yet what we do know is quite astonishing. In order to fully understand how we know what we know, we must go back beyond the creation of a formalized scientific study of religion to the roots of science itself.

Although science began to mature in the last century or so, its conceptual foundations are much older. Scholars have argued that the conceptual foundations of the scientific method were laid by Greek philosophers who believed, at least as early as the 6th century B.C.E. (but probably even earlier), that human beings were capable of formally figuring out on their own and for themselves what their worlds were like. (Pine 1989) Many of us take this confidence for granted today (a sign of its impact on our world and, according to pragmatist philosophers, of its truth), but it was a revolution for its time. In that era, the leaders of religious guilds provided most people with explicit concepts of the world, though certainly not free of charge. Priests held, often with state support, a monopoly on cosmology (theories of the nature of the universe) by claiming to have a pipeline to the gods. Generally speaking, therefore, all answers had to come from them (technically from the gods through them, but the effect was the same nonetheless). (Boyer 2001)

However, people like Socrates, Plato, and Aristotle, just to name a few of the most famous philosophers, began to argue that human beings should doubt all unverifiable truth-claims (those that are either illogical or that contradict evidence). That is to say that people ought not to accept on blind faith everything that their religious priests told them. Instead, they argued, humans should use their own abilities, which they called "reason," to figure out the world for themselves. This daring move changed the world in innumerable ways because doubt forced people to prove the truth or validity of beliefs, and making truth-claims susceptible to rigorous examination sewed the seeds of science. (Solomon & Higgins 1996)

Fast-forward to the 17th century. Philosophy, which had by then become an actual discipline of men (yes...usually only men) who contemplated, among other things, truth, value, and the nature of the world, had been weakened by the growing disbelief in the human ability actually to know anything for certain about the world (it is, admittedly, a difficult task). One very important philosopher, however, dedicated his time to settling the matter of whether or not human minds could really know anything at all. In a flash of brilliance, the Frenchman Rene Descartes realized "*cogito ergo sum*" ... " I think, therefore I am." (Descartes 1931) Descartes seemed to have proved that it is at least possible to know one thing for certain...that "I" exist...because something or someone (the "I") has to be asking the question, "do I exist?" In other words, knowledge of the act of thinking itself presumes that a thinker exists and with that Descartes proved that we can know something absolutely for sure. We can know this because humans have the ability to reason.

This little phrase, which has become famous throughout the Western world (but not necessarily very well understood), had far reaching implications. It launched an epistemological revolution (and soon after, several socio-political revolutions, in France and in the English colonies). As more and more Europeans began to have great, arguably exuberant, confidence that humans have what it takes to (1) figure out what the world we live in is like, and (2) to perfect that world. The movement called the "Enlightenment," and its way of thinking about the world the "Enlightenment Paradigm," was born.

It didn't take long for scholars, inspired by the confidence in science, to begin developing instruments that could aid them in their pursuit of knowledge about the world. Once a few sound discoveries about the world were made people began to develop technologies that exploited that knowledge for human use (though some debate whether this has been good or bad for humanity). Thus, the creation of the "modern" world has a narrative ... philosophy begat science, and with science we've changed the world.

The scientific method matured in the 20th century when scientists began to fine-tune their methods of investigation and analysis. (see Kourany 1998). Ideally, the scientific method demanded the generation of hypotheses about the cause(s) of some data (e.g. The stars follow the same path year after year because...; Humans stop bleeding after some time because ...; the United States of America is stratified because ...; etc.), the gathering of empirical evidence about the phenomenon (often with the aid of instruments like the telescope, the microscope, and later in the social sciences, questionnaires and surveys), the creation of tests for the original hypotheses (e.g. if X is caused by Y, if we remove Y, then X will cease to exist) and finally the publication of the tests' results to be scrutinized by professional peers (who often recreated experiments with different data or tested the same theory by a different method). Of course, in practice, science is not that clean or pretty. Mistakes are made; numbers are altered; scientific discoveries are rejected from publication because of personal animosity or political philosophy (like race or gender politics), and biased inferences generate false hypotheses that nevertheless become accepted theories, and

so forth. Yet, the general method was established to the point that as the 20th century unfolded, we were poised to make truly significant discoveries about our world.

In this milieu, some scholars became interested in trying to apply the methods of the natural sciences to explain the human world. They established disciplines of what came to be called the "social sciences" (*geisteswissenschaft* or "science of the spirit" in German) for this purpose. Social scientists applied the scientific method to human behavior in the hopes of not only understanding why we do the sorts of things we do, but more prescriptively in the hopes of changing, where they felt necessary, inappropriate behavior. (Rosenberg 1997) To this end psychologists studied the "psyche," or the mental processes that produced individual behavior in order to eradicate mental illness (e.g. Freud 1946, 1961a, 1961b, 1967) or to cultivate self-actualization (e.g. Jung 1938, 1953-1976). Sociologists studied group behavior to remedy social ills. (e.g. Durkheim 1938, 1951, 1995; Weber 1958, 1976, 1993) Economists studied systems of exchange in hopes of eradicating class oppression, poverty, etc. (e.g. Marx & Engels 1964) Anthropologists studied other cultures to induce the evolution and "civilization" of "primitive" cultures. These scholars hoped to discover the rules (i.e. laws) of human behavior worldwide to engineer utopian societies (although they often disagreed vehemently over what kinds of societies ought to be created).

Importantly, the social sciences emerged within the context of colonialism, which was the extension of European empires by converting the lands of the "New World" that had been discovered by explorers and traders from the 16th to 19th

centuries into colonies. Europeans used military force, politics, economics, and even cultural imposition as weapons in their efforts to subdue the natives. The large scale ventures into places like Asia, Africa, and the Americas, presented new challenges for social scientists in Europe because when the discovery of other people with other religions, languages, skin colors, and so forth became widely known in Europe there emerged great pressure to make sense of it all. The human world expanded dramatically. Europeans were forced by these experience in "contact zones" (Pratt 1992) to confront and explain the existence of other social worlds. The reality of the existence of many cultures still challenges social scientists to this day, and that challenge has had an enormous influence on the academic study of religion.

Two paradoxical problems emerged in the cross-cultural study of human behavior: (1) to make sense of other people's profound dissimilarities, and (2) to make sense of other people's profound similarities. Observant Europeans were struck by questions such as why don't other people believe in our gods? Why don't they live in the same kinds of dwellings as we? Why do they eat different kinds of food? (We can safely bet that the natives being "discovered" by colonialists were asking quite similar questions about "the white men").

Others were struck by the numerous similarities shared by all people in all cultures. After all, the new discoveries of the colonial period suggested that people everywhere spoke some kind of language, practiced some kind of religion, and had some kind of self-governance. How could the existence of disparate but similar cultural systems be explained?

The scientific study of religion emerged in this context and therefore inherited many of the debates from the social sciences about human behavior at large. The scientific study of religion was important to the larger project of "the science of man" because (1) since science seemed to falsify religions' claims, and so having a world full of false-thinkers was, to say the least, troublesome; (2) despite religion's archaism, it seemed to be ubiquitously tenacious; and (3) because of its falsity but ubiquity, it was at its best an impediment to progress, and at its worst quite dangerous.

One of the first efforts of the early social sciences was to explain the underlying unity of all world religions. Most proceeded to do this by identifying its origins (in terms of its historical starting point and/or the causes that produce it) and its functions. Although scholars of religion disagreed over whether the underlying unity of religion was positive or negative for humanity, nearly all assumed it nonetheless. While later scholars (see Chapter 2) would question the notion that all religion is essentially the same everywhere, all camps listed above simply assumed that it was. In part, this was because they were committed to the general ideal of objectivity (that an "objective" world exists independent of our "subjective" imagination of it). Unlike theologians, who insist that religion is best grasped from within a religious system (i.e. by accepting a few bracketed assumptions), the modernist scholars of religion insisted that one could study religion from the outside (as a non-member of the religion one studied). In fact, some believed that an outsider's perspective elucidated religion more clearly than an insider's position

because the view from the inside is biased by the commitments of a culturally-specific faith (in other words, insider views are often colored by the believer's motivation for securing the authenticity of one particular religion). The scientific study of religion began with these basic frameworks and assumptions.

The Naturalist Theories

The social scientific study of religion emerged within the social scientific study of human behavior in general. As mentioned above, there is some difference in orientation between the naturalists and the socio-culturalist non-naturalists, though both are considered social scientific in approach. In time, we will review some of the most famous (or infamous, depending on your view) social scientific theories of religion, those of the anthropologists E.B. Tylor and James Frazer, the economic critic Karl Marx, the sociologists Emile Durkheim and Max Weber, and the psychoanalyst Sigmund Freud. Although these scholars were involved in disciplines with much broader concerns than just religion, they felt that any study of human behavior demanded attention to religion because it is such a widespread phenomenon, the participation in which has serious implications for humanity. Each of the social scientific approaches to religion in turn established sub-disciplines within the academic study of religion, such as the anthropology of religion, the Marxist (ideological) theory of religion, the sociology of religion, and the psychology of religion.

Identifying the internal properties of any given datum is an important step in the classification process of science (e.g. a penguin is a [1] a bird, [2] that doesn't fly, [3] lives in a cold climate, [4] eats fish, etc.), and consequently the search for a universal human nature and a corresponding definition of religion ran throughout the early scientific study of religion. Though the social scientists agreed that religion was a human invention that held a powerful sway over human beings because it served important functions for humans, each put forth a different theory about what exactly that function was. Thus, social scientists are considered to be "functionalists" because religion, for them, was defined by its function. In the following sections, we will review the naturalists Tylor, Frazer, and Freud.

The Anthropological Naturalists – Tylor and Frazer

E. B. Tylor (1871) and James Frazer (1935) are generally credited with establishing the anthropology of religion around the turn of the 20th century. Most anthropologists at that time were adherents to some version of evolution put forth by post-Darwinian evolutionists and from Darwin's theory of natural selection they theorized that cultures also evolved from primitive/simple to modern/complex. This assumption, which later was shown to be quite simplistic, if not racist, (though M.H. Barnes [2001] has offered a slightly revised contemporary version of this approach) drove much of the early anthropological studies of religion.

Tylor and Frazer both assumed that religion had indeed evolved from simple to complex in form and substance. They theorized that it must have originated as

"animism" or "magic" and then morphed into polytheism, monotheism, and then agnosticism (the spirit of their Enlightenment world), which itself would eventually give way to pure scientific atheism. Using data about primitive religions gathered from travel writings, folk tales, oral stories, and so forth, these scholars argued that religion was something like a "folk science" in which primitive men and women appealed to religious agents as a way to explain why otherwise unexplainable things happened in the world. For example, people stop moving, breathing, etc. when they die. Why this happens was perplexing (to say the least) to pre-scientific thinkers. So, according to Tylor and Frazer, primitive humans must have theorized that some kind of a spirit (i.e. soul) animates each body for the duration of one's life and then departs at death. This primitive attempt to explain death constituted an intellectual attempt to make sense of the world, and so their theory of religion is referred to as the "intellectualist" theory because it foregrounds the notion that religion is about "belief as explanation."

The Psychoanalytical Naturalist - Freud

Sigmund Freud, the founder of modern psychoanalysis, theorized that religion was widespread because it served psychotherapeutic functions such as neurotic outlet and wish-fulfillment. (Freud 1946, 1961a, 1961b, 1967) For Freud, religion was nothing but the by-product of deeply rooted psychological conflicts between individual desires (what we want to do) and social rules (what we are allowed to do). Using data gathered from clinical psychotherapy, Freud hypothesized that religion

soothes psychological discomforts such as the dissonance one feels about human mortality, about our powerlessness over the forces of nature, of repressed sexual desires, and so forth. Religion, he claimed, fulfills psychological needs such as the desire for a permanent father figure to protect us from bad things, the desire to be relieved of guilt, and so forth. Freud noted that religion often involves the "projection" of a father-figure up in the sky somewhere who loves us, protects us, and rewards us if we behave but punishes us if we misbehave. Believing that there is a "big guy in the sky" to take care of us makes us feel better about our otherwise difficult and meaningless lives, but, warned Freud, believing in such illusions is nothing but immature, child-like "wish-fulfillment" that impedes healthy psychological growth. Religion is the illusion that all of our deepest wishes will be fulfilled if we just believe in the gods and perform the proper rituals.

Non-Naturalistic Social Scientific Theories

The Ideological Non-Naturalist - Marx

Karl Marx (though he worked alongside Freidrich Engels, Marx has gotten most of the credit for this approach – we shall refer to their approach as "Marxist") argued that religion fulfilled the function of maintaining the socio-economic status quo for the bourgeoisie (the wealthy and powerful people, such as the owners of businesses, land, money, and other forms of capital) by naturalizing economic differences in cosmological myths. Religion was, according to Marx, an important pillar of the cultural "superstructure" (the non-economic aspects of society) because it

helped to maintain the unjust base of capitalism itself. Religion is very popular, he theorized, because it made oppressed people feel better about their harsh lives by promising them rewards in an "afterlife" for good behavior on earth. "Religious distress," Marx wrote famously, "is at the same time the expression of real distress and the protest against real distress. Religion is the sigh of the oppressed creature, the heart of a heartless world, just as it is the spirit of a spiritless situation. It is the opium of the people." (Marx & Engels 1964, p. 42) In other words, Marx argued, the masses turn to religion because it makes them feel good, for example, to think that their evil bosses will spend eternity in hell while they spend eternity in heaven. And above all poor people are comforted by the thought that life has some purpose to it – that it's all part of "God's plan."

In turn, according to Marx, the bourgeoisie benefit from religion because it makes the working class passive. Religious laws like "Thou Shall Not Kill" prevent people from taking the law into their own hands (e.g. overthrowing their bosses and taking over the industrial plant for themselves). In this way, religion maintains the status quo. People are kept in line by fear...of eternal damnation, for example, for breaking "God's" (i.e. the Bourgeoisie's) laws. Religion, in this sense, functions as a very powerful tool of oppression. (Marx & Engels 1964)

The Socio-Culturalists – Durkheim and Weber

By gathering data via macro-social observation and statistical analysis, Emile Durkheim, the father of modern sociology, explained religion in terms of its social

function: group cohesion (Durkheim 1938, 1951, 1995) Durkheim studied religious primitives, like the Australian Aborigines and the American Indians, because he believed they offered scholars a clear example of the earliest and therefore most basic form of religion, which he called "totemism." According to Durkheim's theory, human beings are forced to live in social groups from birth that are constantly under the threat of disintegration (*a la* Freud's internal conflict). In prevention, the groups invent something to "cohere" them. One of the ways in which humans achieve group cohesion, he hypothesized, was to establish a group identity marker, such as a "totem," which represented the clan itself (e.g. the "coyote" clan, or the "fox" clan, or, to use a more recent example, Russia is represented by the bear and America by the eagle). Then, they set apart the totem as something "sacred" by elevating it to the level of a god, deifying it in icons and rituals, and constructing "taboos" (prohibitive rules) against its desecration. The group then worships the totem (hence "totemism"), which for all practical purposes means that the group worships itself.

Durkheim further theorized that rituals perform the important function of social indoctrination. When individuals participate in social rituals, they are transformed into social beings. They are educated about, invigorated by (via a mysterious process of "effervescence"), and eventually fully inducted into the group through uniformly established rites of passage. Thus, religion, according to Durkheim, had nothing to do with supernatural gods and everything to do with society.

A slightly different sociological theory came from Max Weber. (Weber 1958, 1976, 1993) Weber theorized, among other things, that religious ideas function as "ideal types," and ideal types motivate human action in the world (toward the achievement of the ideal). For example, Jesus established an ethical ideal type in the "Sermon on the Mount." (Matthew 5:1 – 7:27) Today, ideally, Christians strive to live up to this idea (note the popularity of the "What Would Jesus Do?" paraphernalia). In this way, religion motivates social action and therefore historical change over time and place. Weber's most famous example of this was outlined in *The Protestant Work Ethic and the Spirit of Capitalism* (Weber 1976), in which he argued that the Western world (including the United States) progressed economically much faster than other cultures because the people in those societies were motivated by Calvinistic Protestant ideology. More specifically, according to Weber, Calvin's notion of "predestination" and the doctrine of the elect inspired hard work (i.e. "the Protestant Work Ethic") because material success was considered a sign of divine favor and thus a sign of being a member of the elect. In other words, people worked hard, saved money, and excelled in capitalism because they were motivated by the theological doctrine of predestination. In short, according to this view, what people do is caused by what they think, which is in turn caused by religious ideas.

Explanation is Reduction – The Transcendentalist Response

What's important about the social science approach for our purposes is the assumption that is held—that, despite its internal claims to the contrary, religion has

nothing to do with anything supernatural. It is rather entirely produced by human beings ("man makes God in his image"). In this sense, the social scientific study of religion has been important not for what it proved (as stated above, most consider these early theories to be flawed), but rather for what it started. It not only got the ball rolling in the study of religion in university departments, it also spawned an important reactionary approach that was sympathetic to the idea that something supernatural actually exists. These non-naturalistic reactionaries, whom we shall call "transcendentalists," believed that there was much more to religion than just false-beliefs or wish-fulfillment. Driven by this assumption, the transcendentalists established a separate discipline entirely devoted to the objective but sympathetic and comparative study of world religions. The transcendentalist approach eventually came to be called the "history of religions" in America (it is also sometimes referred to as the "Chicago school" approach because it started at the University of Chicago), which was responsible for generating the first wave of scholarship about religion by professionally trained religionists (Tylor, Frazer, Freud, Marx, Durkheim, and Weber were trained in other disciplines) and for establishing a discipline in which students could study all of the world's religions comparatively.

The pillar of the transcendentalist approach was that the naturalist theories were reductionist because they stripped religion of all its inherent religiousness. Religion, scholars like Rudolf Otto (e.g Otto 1958), Joachim Wach (e.g. Wach 1944, 1951, 1958), and Mircea Eliade (e.g. Eliade, 1954a, 1959, 1963a, 1963b, 1969, 1974), argued, was not only "holy" but also *sui generis*, or "of its own category." They

argued that religion could not be explained entirely in the terms of anthropology, psychology, or any other social scientific discipline because religion was said to be "irreducible." Mircea Eliade expressed this sentiment eloquently:

> A religious phenomenon will only be recognized as such if it is grasped at its own level, that is to say, if it is studied as something religious. To try to grasp the essence of such a phenomenon by means of physiology, psychology, sociology, economics, linguistics, art or any other study is false; it misses the one unique and irreducible element in it – the element of the sacred. (Eliade 1963b, p. xiii)

Although they disagreed with the naturalists' anti-religious biases, the transcendentalists maintained the same modernist methods—gather data empirically, objectively classify and compare it, generate theories for the phenomenon, and then publish claims for peer critique. Like the social scientists before them, the transcendentalists also championed the study of non-Western religions, which Eliade called (more respectfully) "archaic," not because they were the most simple but rather the most "pure" (i.e. uncorrupted by modern secularism).

Moreover, instead of focusing on religion's functions, they self-consciously focused on the experience of religion, as expressed in the world's numerous sacred texts. They strove to gather primary data from the world's collective scriptures because these works were thought to capture religion's true character – the multitude of experiences of the Sacred. Once enough textual data was gathered, they were able to compare the canonical doctrines of the world's religions for the purposes of identifying an underlying unity of religious experience of what Rudolf Otto called *das Heilige* or... "the Holy." (Otto 1958). By practicing *epoche*, which was a

methodological strategy of "bracketing off" one's personal beliefs for the sake of looking at something from another person's point of view, the historian of religion hoped to come to a certain level of understanding and appreciation all of the world's religious traditions, and ultimately (ideally) to synthesize and draw out the "Religion" behind the religions. This, they hoped, would lead to an appreciation of the world religious traditions and possibly even to an awakening of the *homo-religiosus* ("human beings, the religious") within every person. More ethically concerned students of world religions even argued that the comparative study of the history of religion could lead to tolerance and respect for diverse peoples and cultures all over the world.

If religious traditions were the expressions of some basic sacred experience, and these expressions were to be gathered, compared and interpreted (a method called "hermeneutics"), then scholars had to be trained in the original languages of the different world religions so that they could recover and translate the sacred texts in which these universal experiences were preserved. Thus, the history of religions approach was "textualist" in so far as it saw theology as being the most significant source of data to be unearthed and interpreted. The hermeneutic approach drove the transcendentalist study of religion for several decades, and even to this day most textbooks on world religions contain surveys of the contents of religious texts presented from the insider's point of view (e.g. Smith 1995; Fisher 1991; Earhart 1993).

From the textualist perspective, religions appear in history when special people have religious experiences and then communicate those experiences to other people in the forms of myths. Mircea Eliade, the most prolific transcendentalist in the Chicago school, called such sacred experiences "hierophanies"—instances when the Sacred manifests itself on earth. Of course, due to the nature of these experiences, they are nearly ineffable, which is why religious texts employ "symbolic" language (hence the need for professionally trained hermeneuts to make sense of them). The expressions of people's experiences are then communicated among groups of people and culminate in the kinds of religious systems we recognize now—Buddhism, Christianity, Shinto, Wicca, etc. Over time, the expressions of these religious experiences become the centers of debate, discussion, reflection, and so forth and so religious systems develop high theological traditions that fine-tune the conceptual worldviews and supplement the more basic myths that recount the great hierophanies of history. According to the transcendentalists, these sorts of texts, when studied comparatively, provide us with a glimpse of the Sacred and therefore provide us with an "orientation" toward religiosity.

To Reduce or Romanticize?

Over the years those in different camps have resorted to labeling each other in an effort to signify them as doing something other than what they claim. The naturalists have dubbed the non-naturalistic socio-culturalists "mystery-monguers" and the transcendentalists "romanticists." (Rosenberg 1997; Nielsen 1997) In retort,

the naturalists have been accused of "reductionism," that is of unjustifiably explaining an autonomous phenomenon at a lower level of analysis. Nevertheless, whether mysterian, romantic, or reductionist, the early scholars of religion all established methods of investigation and analysis based squarely on the principles of the Enlightenment. At the time, this paradigm was viewed as the noblest approach to the study of religion because it was objective. Social scientists felt confident in the objective methods of science to explain religion away. They considered the insider's approach to religion simply absurd (*a la* psychological self-diagnosis). Transcendentalists, on the other hand, while agreeing that the faith commitments of a theological approach restricted one's ability to study other religions objectively, felt that the social scientific approach reduced religion to something not Sacred. They argued in turn for the creation of an entirely new, but nevertheless modern, discipline dedicated solely to the sympathetic treatment of world religions. Both agreed, however, that the comparison of religions was not just possible, but also necessary for a full and accurate assessment of the phenomenon (whether viewed romantically or reductionistically). In this vein, "To know one is to know none" became the mantra for the comparative study of religion. (Muller 1873, 1878)

Confidence in the Enlightenment paradigm, however, earned these early scholars scorn in the years to come. All three camps came to be lumped together as being "modernists" (not a good thing) sometime around the 1970s when the "cultural turn" in the study of religion was accompanied by the ascension of postmodernism in the social sciences, especially anthropology. Historians of religion had begun to

realize that the textual approach to religion produced a narrow, idealized, and therefore inaccurate image of the world's religions and many scholars, especially those interested in the religious lives of people left out of sacred texts like women, minorities, "sub-alterns," (Spivak 1994) and so forth, sought new methods for accessing the experiences of those people. Most of them turned to cultural anthropology where field-work studies of non-elites had been the focus of study for some time. Anthropological studies of culture had, by then, followed in the tradition of Durkheim and Weber more so than Tylor or Frazer in the sense that they came to see "culture" as being a dimension of reality that was distinct from the individual agents that collectively composed it. Conscious of it or not, the assumptions of the early sociology of religion (to be explored in the next chapter) were carried out to their logical ends by post-modernist socio-culturalists.

Significantly, however, as scholars of religion made the cultural turn, cultural anthropology itself was in the midst of a revolution in theory and method the consequences of which had an enormous impact on the comparative study of religion. Cultural anthropologists were greeted in the 1960s with "post-modernism," which was an intellectual movement that challenged the foundational assumptions of the Enlightenment paradigm itself. (Ortner 1994) Like the Sophists of early Greek philosophy, these post-modernists questioned the now age-old assumption taken for granted by modernists that the world was systematic and knowable by means of human reason. In large measure, due to their leftist sympathies with "sub-alterns" and their inherited (from the transcendentalists) disdain for science altogether,

comparative religionists became excited by the postmodernists' criticisms, and many, like their cultural anthropologist colleagues, began to abandon "explanation" altogether opting instead for "interpretations" of culture. Most famously, Clifford Geertz argued that culture could (and should) be "read" like a text, an approach that fit rather well with the historians of religion's hermeneutic tradition. (1973) This paradigm shift (Kuhn 1970), if we are willing to grant that the Chicago school approach in fact constituted a paradigm, came at a critical juncture in the discipline. The discipline of comparative religion was growing rapidly because many of the post-WWII teaching colleges were becoming full-fledged universities and so were hiring the growing number of scholars of comparative religion being trained at the University of Chicago—precisely where Geertz was beginning to have an impact. As the students of religion at Chicago (and elsewhere soon after) were making the cultural turn in the study of religion, they were also starting programs at other colleges and universities throughout America. They took with them a combination of the traditional disdain for "scientific reductionism" from the transcendentalist approach as well as their newly formed disdain for "textualist" studies of religion that were said to "totalize," "essentialize," "idealize," and "obscure" "local" forms of religion that existed "on the ground." Their socio-culturalist approach to religion has dominated the field for the past 40 years, and therefore constitutes the second wave of the "academic" study of religion (no longer able to called "scientific" because of the separation from explanatory endeavors).

The next chapter reviews the postmodernist, non-naturalist, socio-culturalist, theories and methods of the study of religion, and assesses their strengths and weaknesses. As we will see, the work of second wave scholars has shed important new light on religion as it is actually practiced in the daily lives of living people (in addition to how religion is represented by sacred texts) and therefore given us new grist for our theoretical mills. However, this approach has been as much of a curse as a blessing because the assumptions about human behavior that accompany non-naturalism have limited its ability to explain the very behavior that its adherents have discovered.

CHAPTER THREE

POSTMODERNISM AND STANDARD SOCIAL SCIENCE

My wife teaches the third grade. She, like most educators, champions the values of multiculturalism. She begins most of her social studies units with an "us-them-them" distinction that typifies those values. She might say something like, "while we believe V, people F believe X, and people H believe Z." Her students, who range between the ages of 7 and 9, have very little difficulty grasping this notion. Even for third-graders, difference seems naturally to be self-evident.

Contemporary scholars of religion also tend to value multiculturalism. For them, it seems to go without saying that religion is cultural (where else do we get religion but by learning it from our parents, friends, and others in society?). There are many different religions because (the logic goes) there are many different cultures. Consider the titles of typical undergraduate religion courses: Religion in America; Religions of India; Japanese Religions, etc. The multicultural approach to religion posits, simply, that religion is determined by the culture in which it is located. Simple enough, right? Let's see.

Testing my wife's patience is always one confused or unruly child who defies this conventional wisdom by saying something like, "People H actually like to use chopsticks? I have tried those things at the Chinese buffet where my dad takes us. But

they are so hard to use, especially for rice and noodles. Forks are much better. I don't understand why people H still use those dumb things. Why are they so different from us?" The multicultural response, which can be characterized as "relativism," is, of course, "well, chopsticks are hard for you because you didn't grow up using them. People H have. So, they prefer chopsticks to forks, which – by the way – they probably think are hard to use, too. What you have to remember is that people H are just different from us – not better or worse, just different. They use chopsticks and we use forks. It just depends on what you learn growing up."

This answer is "heuristically efficacious." In other words, it works, at least well enough to allow my wife to continue on in her lesson plan (and I suspect that it sounded correct to you). However, one time, while I was in a rather sassy mood, I challenged my wife on the answer. After some debate, she admitted, begrudgingly, that the response doesn't really answer the question. It actually dodges it. Of course, question-dodging is, understandably, sometimes necessary...as every parent (and teacher) knows. Young children are often insatiably curious, possibly even in infancy, as developmental psychologists Gopnik, Meltzoff, & Kuhl point out in their book, *The Scientist in the Crib*. (Gopnik, Meltzoff, & Kuhl 1999)

The answer, "because that's just what they do in their culture," sounds right because it fits well with the way we view the world. When we look around, proof for the theoretical notion that cultural properties are autonomous seems to be in the pudding. That is to say that the sorts of values, preferences, attitudes, beliefs, etc. (e.g.

preference for forks over chopsticks) that any given human being possesses seem to have been "picked up" over the years from the given traits of a particular culture.

This common sense notion has sophisticated scholarly kin – an approach to the study of culture that Tooby and Cosmides have called "The Standard Social Science Model." (Tooby & Cosmides 1992) As we have seen, the idea that societies shape individuals is an old one dating back to Marx, Durkheim, and Weber. Its assumptions about human behavior are so powerful that the idea is simply accepted (arguably uncritically) as true beyond a reasonable doubt. Cultures cause behavior...and that's that.

However, we ought not settle for "that's that" answers. On such matters I agree with Confucius who said that extraordinary facts impress the commoner, but the extraordinary person is impressed by what is common. Let's approach this self-evident "truth" critically. If it is true, it will withstand the scrutiny. If it is not, we'll have to scrap it and begin anew.

The Standard Social Science Model

How do cultures cause individual behaviors, exactly? Most Americans learn in elementary school that a noun has to be a thing – you have to be able to touch it, feel it, smell, taste it, etc. In other words, "things" have physical properties. Yet, "culture" seems to be non-physical. So, how can "culture" exist if we cannot touch it, feel it, smell it, or taste it? Socio-culturalists, like Clifford Geertz, say that culture has a "semiotic" existence. Geertz writes,

> Believing, with Max Weber, that man is an animal suspended in webs of significance he himself has spun, I take culture to be those webs... (Geertz 1973, p. 5)

In this sense, socio-culturalists are "dualists" – they argue that certain "things" can (and do) exist outside of (or "transcend") the physical world...for example beliefs, desires, attitudes, preferences, meanings, values, intentions, consciousness, etc.

"Stuff without material existence" makes, admittedly, for a fuzzy theory. And socio-culturalists know this. The following admission by leading socio-culturalist Bruce Lincoln in *Guide to the Study of Religion* is telling:

> Let me begin by observing that although the term "culture" is a seemingly indispensable part of my professional and everyday vocabulary, whenever I have tried to think through just what it means or how and why we all use it, the exercise has proved both bewildering and frustrating. As a result, I am always on the lookout for serviceable alternatives and my list now includes such items as discourse, practice, ethos, *habitus*, ideology, hegemony, master narrative, canon, tradition, knowledge/power system, pattern of consumption and distinction, society, community, ethnicity, nation and race, all of which manage to specify some part of what is encompassed within the broader, but infinitely fuzzier category of "culture." (2000, p. 409)

As Lincoln's candor (and his laundry list of alternatives to "culture") suggests, "culture" is a term that's as clear as mud. Though we might use the term uncritically in our everyday conversations, it has quite a checkered history as a professional scholarly term. (For more on the term's multivalence see Geertz 1973; Sahlins 1976; Nelson & Grossberg [Eds.] 1988; Lincoln 1989, 2000; Bourdieu 1993; Dirks, Eley & Ortner [Eds.] 1994; and, de Certeau 1997a)

Understanding how culture is conceptualized and employed requires some unpacking. Maybe an example will help. As a child, my family belonged to a small

evangelical Protestant church in the "Church of God" denomination that originated in Cleveland, TN. In our brand of Christianity, women were discouraged from wearing slacks of any kind, from wearing make-up, from cutting their hair, from sitting in the front pews (where men sat), and from taking leadership roles in the church (other than bringing meals for out-of-work church members, which unfortunately was common in that church). These discouragements constituted a set of rules that provided the church members with meaningful webs of significance. The rules not only governed gender roles, they shaped attitudes, values, beliefs, etc. about human relationships, about God's will, about social mores, and so forth. These rules were not just known, they were "felt" (I still recall the emotional discomfort people felt in the church when a female guest with short hair would come to a service wearing slacks and make-up, and proceed to sit unknowingly in a pew in the men's section).

Our church certainly had a "culture" of some sort. One surefire way of recognizing one's own culture is to leave it and to enter into a different culture (an experience many religion professors try to engender in the classroom). I became aware of our peculiar culture (relatively speaking, of course – it wasn't peculiar to us) when in high school I attended a service at my girlfriend's United Methodist church, which according to scholars of American religion constitutes a "mainline" denomination. (Roof & McKinney 1987; Williams 2001) Women in her church broke all the rules of my church. They cut their hair; they wore make-up; they wore slacks; and they were not separated by gender.

The cultures of our respective churches were "symbolic" in the sense that the known but unwritten rules of conduct, behavior-preferences, gender attitudes, values of segregation, and so forth had a powerful influence on the way people thought, felt, and acted. To use philosophical language, these church cultures "conditioned intentions." Unlike most nouns, then, culture is not defined by its essence, but rather by its function. Culture is an important piece of the puzzle of understanding religion because of what it does to (or for) people.

Let us now supplement the above example with Tooby and Cosmides' (1992) outline of the tenets of the SSSM. It is so insightful that it is worth listing in its entirety, all ten steps, here:

> (1) Culturalists assume a minimalist "psychic unity of mankind." In other words, "infants everywhere are born the same and have the same developmental potential, evolved psychology, or biological endowment." (p. 25)
>
> (2) "Although infants everywhere are the same, adults everywhere differ profoundly in their behavioral and mental organization." Culturalists deduce from this that "human nature (the evolved structure of the human mind) cannot be the cause of the mental organization of adult humans, their social systems, their culture, historical change, and so on." (pp. 25-6)
>
> (3) "[Because] these complexly organized adult behaviors are absent from infants...they must 'acquire' it (i.e. mental organization) from some source outside themselves in the course of development." (p. 26)
>
> (4) "This mental organization is manifestly present in the social world in the form of the behavior and the public representations of other members of the local group...[a fact which] establish[es] that the social world is the cause of the mental organization of adults." (p. 26)
>
> (5) "The cultural and social elements that mold the individual precede the individual and are external to the individual. The mind did not create them; they created the mind." (p. 26)

(6) "Accordingly, what complexly organizes and richly shapes the substance of human life—what is interesting and distinctive and, therefore, worth studying—is the variable pool of stuff that is usually referred to as 'culture'...variously described as behavior, traditions, knowledge, significant symbols, social facts, control programs, semiotic systems, information, social organization, social relations, economic relations, intentional worlds, or socially constructed realities." (p. 27)

Yet, they ask, "'if culture creates the individual, what creates culture?'" (p. 27) The collective answer given by SSSM socio-culturalists constitutes the final four tenets of the model.

(7) "The advocates of the Standard Social Science Model are united on what the artificer is not and where it is not: It is not in 'the individual'—in human nature or evolved psychology—which, they assume, consists of nothing more than what the infant comes equipped with." (p. 27)

(8) "The SSSM maintains that the generator of complex and meaningful organization in human life is some set of emergent processes whose determinants are realized at the group level...The socio-cultural level is a distinct, autonomous, and self-caused realm." (p. 28)

(9) "Correspondingly, the SSSM denies that 'human nature'—the evolved architecture of the human mind—can play any notable role as a generator of significant organization in human life. In so doing, it...relegates the architecture of the human mind to the delimited role of embodying the 'capacity for culture.' [The human mind] is...[like] a general-purpose computer. Such a computer doesn't come pre-equipped with its own programs, but instead—and this is the essential point—it obtains the programs that tell it what to do from the outside, from 'culture.'" (p. 29)

(10) Finally, "In SSSM, the role of psychology is clear. Psychology is the discipline that studies the process of socialization and the set of mechanisms that comprise what anthropologists call 'the capacity for culture.' The central concept...is learning." (p. 29)

The insight for the student of religion is that if you want to know what religion is all about – if you want to know why individuals believe what they believe and do what they do – break it down according to culture. Find out where people

learned their religion. My high-school girlfriend's religion was significantly different from mine despite the fact that we were both young white Protestant Christians from the same small town in the rural Midwestern United States (a fact that implicates us in the joke stated at the outset of Chapter One). Protestant Christianity is different in Biloxi, Mississippi than it is in Boston, Massachusetts. Buddhism in Nepal is different from Buddhism in Boulder, Colorado (despite efforts and claims to authenticity by Boulderites). That is to say nothing about religion in Bangkok, Thailand versus religion in Zagreb, Croatia.

For socio-culturalists, religion is a symbolic system of ideas governed by cultural rules specific to a particular group. It has a dual-function, then, (1) it provides a view about what the world is like, i.e. a "worldview," and (2) it in turn prescribes an "ethos" that motivates behavior in the world. It is a model of and for reality. (Geertz 1973, pp. 126-7)

Thus, for Geertz and other socio-culturalists, the study of religion should be interpretative because its regional variance requires that we "get inside" the culture in question for the purposes of deciphering the rules of the system that determine how people think and act. The best way to do this, of course, is by immersing ourselves in another culture, learning it as well as possible, and then reconstructing it in "thick-description" synthetically for other people's understanding – a task that involves a kind of cultural translation.

This model has its roots in the sociological frameworks of Marx, Durkheim, and Weber. (Pals 1995) But, as we have seen, it was at one time merely one among

three (along with naturalism and transcendentalism). It is now, however – at least in terms of the sheer number of scholars employing it – the dominant approach in the field. Why did this triumph occur? A clue is that it is no coincidence that its ascendancy occurred in the 1960s.

To use the SSSM to analyze the popularity of the SSSM...just think of what American culture was like in that decade. Anyone who is even patently familiar with recent U.S. history knows all about "the Sixties." It was truly a decade that changed America. Record numbers of American baby-boomers, supported by Federal programs like the G.I. Bill, flocked to U.S. colleges and universities as a means of upward social mobility or to avoid service in the war in Vietnam. Concurrently, college campuses throughout the country became hotbeds for the counterculture, and students (and professors alike) began to challenge many of the established mainstream ideas, values, and policies. The Sixties were synonymous with the hippies and their ad-hoc mixture of free love, rock-n-roll, mind-altering drugs, and...of course, socio-political liberalism. It was revolution by day, bacchanalia by night.

For many scholars, the Sixties also marked the end of the confidence in naturalistic and the transcendentalists' textual approaches. As improved transportation made world travel more reliable and affordable, exposure to other cultures began to reveal that textual studies of religion not only did not capture religion as lived "on the ground," in many cases it obscured or misrepresented it. In particular, the lives of non-elites (women, minorities, etc.) were simply absent. Thus,

"subalternist" scholars turned to the study of "living" religion in search of the religious experiences of those sorts of people. (e.g. Fisher 1991)

On the other hand, the socio-culturalists maintained the transcendentalists' disdain for a naturalistic approach to religion on the grounds that science and religion were incompatible. Religion was "warm." It had to do with experience, meaning, worldview, and ethos. Science was "cold." It was about matter, objectivity, technology, and skepticism. Many humanistic scholars even began to fault science for the world's ills. The problems of war, racism, poverty, environmental destruction, and just about every other social ill could be laid at the doorsteps of science because of its apparent alliance with the mainstream. Science was too much a part of "the System."

In this milieu, scholars of religion threw caution to the wind and made the "cultural turn" away from the frameworks of study established by their predecessors. They turned from texts and minds to culture, for the purposes of putting together the missing pieces of the puzzle of world religions. They turned from science in favor of a kind of quasi-mystical attraction to culture, especially cultures that were not mainstream (like I said, "the farther away the better"). 1965 was a pivotal year in this development, for the Hart-Celler Immigration Law opened the floodgates to thousands of Asians who came to America in search of jobs, freedom, or security. In turn, Americans were exposed to spiritual alternatives to the established mainline denominational traditions. (Roof & McKinney 1987; Wuthnow 1998)

Scholars of religion gradually embraced the theories and methods of cultural anthropology, which just so happened to be undergoing a revolution of its own.

Geertzian non-naturalistic "cultural hermeneutics" was replacing the last remaining naturalist paradigm around, the structuralism of Claude Levi-Strauss, (Levi-Strauss 1962; 1966; 1969) as the most popular way to study culture. Since one of the central pillars of socio-culturalism is to have a healthy respect for cultural autonomy, it is tempting to make the connection between this academic development and the "Me" generation's sympathies for any group marginalized by the mainstream (e.g. minorities, women, revolutionaries, subalterns [Spivak 1994], and so forth). Those personally caught up in the Sixties' counterculture revolution were becoming very liberal, and those professionally involved in academia, including students of religion, were becoming postmodernists. Postmodernist socio-culturalists criticized the naturalistic approach to anything social on the grounds that human behavior is motivated by intentions, which being about "mental" phenomena rather than material phenomena, cannot be susceptible to the methods of the natural sciences and their laws of natural causes. (Rosenberg 1997) As we shall see, it was in this sense a logical conclusion to the operative assumptions of the SSSM (not to mention in-line with behavioral psychologists' assumptions about *tabula rasa* and the role of "learning" in behavior).

Let us now explore the postmodernist version of the SSSM. In order to capture its spirit, we shall employ its own language and style of argument. One can best understand its complexity by engaging its "discourse" (a term that is quite favored by postmodernists).

Postmodernism and Its Discontents

Postmodernism is a loosely organized movement that emerged around the criticisms of what leftists pejoratively dubbed "modernism." Postmodernists sought (and still seek) to problematize the assumptions of the modernist paradigm, including deconstructing the idea of objectivity and therefore all of science by extension. As one scholar quipped, postmodernism involves "an incredulity toward grand narratives." (Lyotard 1984) What modernists believed to be discovered truths, which they often confidently showcased as part of an ongoing Hegelian evolutionary history of knowledge, were deconstructed by postmodernists as nothing but subjective, constructed, grand meta-narrative theories or discourses (plural) that were to be analyzed as sociologies of knowledge. In postmodernism, all knowledge is assumed to be local, and so modernist theories are criticized for being hegemonic. In fact, postmodernists hurl the label "scientism" at the efforts of those who (claim to) reduce the complexity of life to parsimonious laws.

In contrast, postmodernists seek to construct a pluralized image of the world that captures all of the ambiguities of the competing narratives of life. According to postmodernist conventional wisdom, human life is too complex to be studied scientifically ("humans are not atoms"), and so the underlying unity of anything human is highly suspect. As such the lines between social scientific disciplines that were created by modernistic university departments ought to be blurred if not replaced altogether by non-reductionistic humanities departments. Scientific theories do not reflect reality *per se*, postmodernists argue, but rather reflect the kinds of

categories of thought that privileged scholars generate to signify, a stay of political power, the world. Science, in this view, is essentially no different than any other discourse that seeks to do the same and so the search for causes (explanations) should be replaced with the search for meanings (interpretations). (Lincoln 1989)

Eventually, the general postmodernist criticisms of modernism led to more specific socially-concerned critical discourses about the consequences of modernism. The construction of discourses by modernists could be implicated in the many political and economic power struggles that were at the heart of European colonialism and industrialization. Modernistic comparisons of people and cultures by privileged European male elites had led, they argued, to the "signification" of non-Europeans. (Long 1986) At its best, these discourses resulted in inaccurate images of other people that served the purpose of constructing a self-identity vis-à-vis an imagined "Other." At its worst, this production of knowledge was used to maintain the status quo or to subdue subalterns as part of Western patriarchal, ethnocentric, imperialist projects. (Said 1979)

Postmodernist critics of the modernist approach to the study of religion apply these general criticisms of modernism to the specific study of religion. According to postmodernist scholars of religion, the methods and assumptions of the modernist study of religion constitute a rightful object of study themselves, because we need to problematize and deconstruct all modernist assertions. For example, the category of religion itself has been called into question as nothing but an abstraction that reflects not reality but merely the biases and assumptions of Western scholars operating in the

modernist paradigm (McCutcheon 1997; Asad 1993; J.Z. Smith 1978, 1982, 1987, 1990). Other categories, like "ritual" for example, have been called into question and replaced with other terms, like "ritualization," which postmodernist scholars feel are more fruitful. (Bell 1992)

Since all knowledge is local and political, postmodernists like to pluralize (Religion becomes religions; Culture becomes cultures, etc.), a move that has important methodological consequences. Weary of all grand narrative theories that oversimplify the complexities of life as lived on the ground, postmodernists encourage the acquisition of data by highly specialized studies of particular historical events. Assuming that all cultures are unique and autonomous, local area studies, in which students are encouraged to "go native," are favored over comparative studies. (e.g. Ortner 1978) The goal of this kind of scholarship is arguably quite noble—to recover the voices of those left out of or misrepresented in texts and other repositories of modernist data for the purposes of creating a more "accurate and usable history." (Gross 1996) The greatest object of scorn today is the armchair anthropologist or the canonical textolatrist, and to combat such *faux pas*, graduate training now typically involves preparation for highly specialized studies of a particular group, a text (often non-canonical or popular), or a culture. Cultural immersion is championed as the method for generating a "thick description" of religion on the ground, and comparison is seen as abstract and superficial. (Geertz 1973)

Postmodernist scholars of religion also tend to blur the lines of analysis. Explanations of any kind have been problematized and replaced with subjective

interpretations of cultural meanings, which themselves are viewed as multi-dimensional and shifting. Where detachment once reigned, subjectivity is now openly admitted, and so it is not uncommon to see books with confessional introductory chapters about the author's perspective(s) and bias(es). (e.g. Gross 1993)

Overall, the postmodernist study of religion has sought in its more moderate forms to correct, and in its more extreme forms to deconstruct, the modernist study of religion by calling into question the Enlightenment paradigm itself, especially its foundational principle of objectivity. Since knowledge is constructed, postmodernists believe, all knowledge must be seen as local, particularized, perspectival, political, and so forth. Furthermore, being mindful of the legacy of modernism—millions of people have suffered tragedies at the hands of Europeans—we must be diligently reflexive about what we say. In fact, we might do more good undoing the wrongdoings of modernism than trying to make any constructive claims at all. Simply put, because we are incapable of being truly objective, subjectivity renders all comparison superficial and unacceptable. All events, including religious ones, are unique.

The Method in the Madness

Having studied postmodernism for several years, I have tried my best – by employing actual postmodernist terms and styles of argument – to stay true to its spirit in the above section. If it gave you a headache, don't worry...the problem is not necessarily yours. Postmodernist jargon is often vague and unclear (though to be fair,

postmodernists will retort that vagueness is much more representative of the messiness of life than simplistic scientific theories, which mask complexity). Its infamous unintelligibility inspired Ernest Gellner to call it "metatwaddle." (Gellner 1992, p. 41) But there is method to its madness. In fact, it turns out to be quite intelligible...even quite simple. Perhaps a translation into "common" English will help.

While postmodernism in Europe began primarily among literary critics and philosophers (with complicated roots in various disciplines such as post-structuralism, phenomenology, and critical theory), it began its ascendancy in America with the cultural turn made by Clifford Geertz, who popularized interpretive symbolic anthropology as the most promising method for the study of religion because of its holism. (Pals 1995) According to Geertz, to understand why people do what they do, one has to identify the intentions behind their actions and in turn decipher the internal coherency of the cultural rules that condition intentions. (Rosenberg 1997; Geertz 1973) For example, right now I am typing on my keyboard with the intention of creating a coherent story about the logic of postmodernism. Now, were someone to study me right now (which is highly unlikely, for anthropologists generally like to study exotic folk...the farther away the better), they might look beyond that surface level intention I just offered and infer instead that what I really am doing is inventing a story from my personal experiences for the purposes of getting this work published as a book to get a cushy job in the Ivory Towers of academia. To accomplish this, I construct a "discourse," which sets me apart from other people and thus increases my

value as a writer (the more I confuse you, the smarter I appear!). Why do I do this? Because I am a self-interested white heterosexual privileged Protestant male who uses knowledge for power (a strategy not of savvy, but of manipulation and exploitation). That sums up the postmodernist critique of modernism. For postmodernists, that which gets presented as truth (e.g. this dissertation) is an invention, or merely my "take" on reality. Regardless, both mask what people are actually doing – they are tricking everyone (sometimes even tricking themselves) to get and/or maintain power.

You might have noticed, by now, that postmodernism is a sophisticated form of neo- or cultural Marxism. And, keeping in-line with Marxist analysis, postmodernists propose two levels of scholarship: thick-description and discourse criticism. In other words, the study of culture should involve (1) finding out how a culture works by identifying its webs of significance (e.g. college professors in the U.S. are chosen among a pool of graduate students who must play by the rules of the game and write a dissertation that claims to know something very important that no one else knows), and then (2) criticize its power structures for the oppression of subalterns (e.g. this is why minorities are under-represented in academia because the discourse is controlled by the intellectual bourgeoisie). (e.g. Lincoln 1989) One should be able to see how religion is implicated in this system – not only is religion a discourse of power, so is the study of it! (e.g. Asad 1993)

Does postmodernism unveil the true motives of scholars who, like Enron executives, don't want others to know? Does it explain culture? The answer is...no. Of course, I have little doubt that scholars are self-interested. What I do doubt,

however, is that culture causes them to be this way (or that way, assuming the postmodernists, as critics of "the system," imagine their liberal ideology to be superior [but are they masking masking?!]). Philosophically speaking, postmodernists have not explained anything. They have merely re-stated the question and affirmed the consequences. Thinking back to my wife's unruly student...why do some people like rice and others like pizza? To say it's because their cultures are different begs the question of why their culture is different in the first place.

There are serious flaws with the postmodernist socio-cultural approach to religion. So, we have to be very critical of the critics. We have to deconstruct, to steal one of their terms, this approach.

Deconstructing Postmodernism and the SSSM

As we shall see in Chapter 3, a more recent approach to the study of religion than postmodernism (we might call it "neo-modernism") revives and modifies the basic principles of early modernism, and critiques the postmodernist critique of modernism as well as the postmodernist approach itself. The modifications to modernism by neo-modernists are few, but significant. The criticisms of postmodernism are also significant, but are not few. Let us address each in turn and then sum up the criticism of both within the new model, which is an outgrowth of the "cognitive revolution." (Thagard 1995)

The primary criticism of early modernism by neo-modernists is that while it was on the right track, it failed to adhere to its own standards. That is, unlike the

postmodernist criticisms of modernism, neo-modernists argue that the early modernists were simply not scientific enough. Either because of their personal political philosophies or because they were an accident in time (they simply didn't know what we know now), the early modernists operated on fundamentally flawed assumptions about human behavior. Furthermore, by maintaining that religion was *sui generis*, the transcendentalists cut themselves off from science and implicitly forwarded a theological agenda (albeit a liberal one, which they imply is acceptable).

Among the reductionists, Durkheim – the "founder" of the SSSM – has received the most criticism from neo-modernists. (see Tooby and Cosmides 1992) Durkheimian sociology assumed that group behavior constituted "social facts" and therefore should be studied independently of biology or psychology. (Durkheim 1938) Operating under the illusion of cultural autonomy, he (and many others who followed) cut himself off from fruitful discussions with scientists operating at lower levels of analysis. To this day, "culture" tends to be viewed as existing on some kind of astral plane independent of the human agents that produce and carry it. (Sperber 1996a) This restricts the ability of the sociologist to provide grounded explanations for human behavior and to make powerful predictions about group behavior.

On the other hand, anthropology has always been troubled by its early misuse of Darwinian anthropology. While the intellectualists assumed that religion had something to do with thinking, they were biased by "social Darwinism," and so concluded unscientifically that religions evolve from simple to complex. Furthermore, they were hampered by limited cross-cultural data (much of which was

obtained from travel writings, which were unreliable and often sensationalized—see Pratt 1992) and so lacked a thorough selection from which to theorize comparatively. In large measure, postmodernists have sought to correct the early racisms of anthropology but unfortunately they have gone too far in emphasizing that all knowledge is to be respected as equally valid.

Freud was partially correct to assume that cultural behavior is the collective output of mental processes, which in turn are constrained by evolution. However, his tripartite theory of mind has proven to be wrong (or at least intractable). Like all of the early modernists, Freud was doing little more than arguing for what seemed to him to be true.

Furthermore, the anti-religion bias of these early reductionists led them to abandon the principles of objectivity. Their reductionism was motivated by a desire to explain religion away rather than just to explain it at a lower level of analysis (e.g. from culture to cognition). By analogy, instead of merely studying how the eye works to understand how a person can come to appreciate a beautiful painting, these early scholars wanted to get rid of the experience of beauty altogether. (Damasio 1994) They wanted to make the painting go away. Unfortunately as a result, reductionism is still a dirty word in many circles.

On the other hand, the transcendentalists were correct in wanting to compare religions for the purposes of identifying the underlying unity or structure of religious behavior. However, by losing touch with discoveries in other important related fields (because they demanded to be a *sui generis* discipline), they severely limited their

ability to do so. Eliade and his colleagues left students with only one option—either you see religion romantically (as an orientation toward the Sacred) or you don't. Such a position not only violates Ockham's razor, which stipulates that we should posit the minimum amount of entities that are necessary for explaining a phenomenon, (Solomon & Higgins 1996) it also commits one to a theological agenda. (in fact, as it turns out, scholars of religion do not need to know whether or not God exists to study religion). Thus, while our descriptive knowledge of the world's religions has been expanded by the work of historians of religion, our fundamental knowledge of religion as a ubiquitous human behavior has not.

In addition to the criticisms of early modernism, there are at least six (by my count) neo-modernist criticisms of postmodernism. First, while postmodernism should be appreciated for its corrective criticisms of the early modernist weaknesses, its claims of deconstructing objectivity and science are specious and arguably fraudulent. Postmodernists have drawn a straw man in "scientism." The overwhelming successes of the natural sciences, especially the recent advances in biology, cannot be ignored or dismissed as coincidences or lucky guesses. As it turns out, science is a kind of knowledge fundamentally different from, for example, theological knowledge (for one, scientific theories are falsifiable). Science has proven over and over again that it can construct powerful and predictive theories about the world and its workings (including human behavior). The primary reason why the human sciences have not enjoyed the same success is because they have cut themselves off from the wealth of knowledge that can be generated by the methods of

the natural sciences. Furthermore, postmodernists misunderstand what science does. It is not a panacea, which seeks the certainty of explaining everything. Rather, the scientific method allows scholars to reduce complexity down one level at a time, thereby enabling scholars to unify claims. Importantly, methodological doubt remains the hallmark of science. Knowledge advances "one funeral at a time." (Wilson 1998)

Second, because of the bio-phobia in the humanities and other related social sciences (explaining anything in terms of psychology or biology is "reductionist"), socio-culturalist scholars of religion produce scholarship that turns out to be little more than journalism. They see their job as being to "get the story." Mere description is ultimately intellectually unsatisfying, however, and it offers little to academia and to students. The result has been the widespread institutionalization of the "zoo" approach in religion departments, in which each religious story is told in individual offices and classes. While this approach might be convenient, and it might serve the particular curiosities of individual scholars, how much can we really learn at the zoo?

Third, post-modernists assume wrongly a minimalist theory of mind (some early modernists, like Durkheim, are guilty of this as well—again, see Tooby and Cosmides 1992). Assuming cultural autonomy demands one maintain the (wrong) belief that human minds are little more than culture-sponges (or "black boxes" in B.F. Skinner's (1953) famous stimulus-response model of behaviorism), just sophisticated enough to pick up what our senses experience. For example, to understand Buddhism

one is taught to understand it in "historical contexts" because, as the theory assumes, human behavior is the product of environment and historical antecedents.

This assumption is logically flawed. If humans are such "cultural" beings, then culture is never generated. So, whence came culture? Why/how do cultures change? The philosopher Immanuel Kant pointed out years ago that something (which he called "*a priori* categories") must undergird our perceptions, or else knowledge and communication of any kind would be impossible. (Kant 1929) Cognitive scientists have argued persuasively that our minds are not content-free *tabula rasas*. (Chomsky 1957, 1972, 1986; Tooby and Cosmides 1992; Thagard 1995, 1998; Pinker 1997) Rather, they are content-rich information processors that are pre-disposed to bias reality in certain ways. As a result, cultures have recurring features—such as religion, art, music, language, etc. The focus on upper-level analysis alone (culture) obscures the underlying unity of behavior that is susceptible to analysis at lower levels (cognition and biology). Thus, we can compare religions by starting with the assumption that human beings are universally quite similar.

Fourth, postmodernism's claim that all knowledge is local is illogical. If all knowledge is local and thus subjective, then we can't take seriously the claim that all knowledge is local and thus subjective...because that claim itself is merely local and subjective. It's like the paradox from the philosophy of language...the sentence, "I am lying." If true, it's false. If false, it's true.

Fifth, because they have distanced themselves from science, postmodernists often work in the humanities and so enjoy a lack of constraining principles on their

claims. Almost anything goes because the plausibility of claims made can only be evaluated subjectively. The unfortunate by-product of this is that authority is manufactured by pedigree. Without any constraining theoretical or methodological principles, the field is subject to faddish trends in which the most popular ideology or political philosophy reigns (e.g. feminism). What is true, and this is another postmodernist paradox, is whatever is in fashion (e.g. postmodernism).

Finally, the reigning ethical philosophy in postmodernism has been cultural relativism (what we started off calling "multiculturalism"). According to this position, no ideology is inherently any better than any other. As stated above, this might be an attractive plea for tolerance, but it is ultimately untenable. Again, if it is true, then it disproves itself. How is any scholar's claim evaluated? Moreover, how do we decide whether, for example, capitalism is better or worse than socialism? By what criteria would slavery be wrong? How do we determine whether Egyptian youth cliterectomies are wrong or just part of their culture? This untenable position has been exposed as fundamentally problematic in the wake of the tragic attacks on the World Trade Center on September 11. Some ideas and actions are worse than others.

To conclude we should be balanced in our assessment of the SSSM and of postmodernism. The consequences of the early modernists' mistakes, which led to the reactionary celebration of postmodernism, have been a double-edged sword for scholars of human behavior. Its approach has been a blessing in the sense that culturalists have gathered rich data that has improved our substantive knowledge of religion in our world. We know a lot more about the actual contents of religious

systems, and how those contents vary from person to person, group to group, culture to culture.

But, new data is not new knowledge. The theoretical inadequacies of the SSSM have limited its explanatory power. We simply have not done a very good job of making sense of the data. We know what, but we haven't done much to explain why. So, rather than abandon modernism altogether, we should have corrected its flaws. Instead, nearsighted scholars (uncritically) accepted deeply problematic assumptions about knowledge, scholarship, cultures, religion, and human behavior from postmodernism that have prohibited progress in the field.

Fortunately, a new model has emerged that has been remarkably successful in explaining much of what the data reveals. The interdisciplinary field of research known collectively as the "cognitive sciences" seeks to explain human behavior by appealing to the processes of thinking, "cognition," that generates behavior. And since thinking is a function of the organs of the brain, it is clear that we can apply naturalistic models of explanation. For, brain-matter matters a great deal.

Chapter Four reviews the final, and as I said before, the best method we have for studying lived religion. It truly represents a revolution in the human sciences, and as such deserves its own chapter.

CHAPTER FOUR

COGNITION AND RELIGION

Gods aren't very good conversation partners. They're aloof. They ignore you. They're unreliable (at least by human standards). Gods seem to have minds of their own.

For this reason (well, sort of...) scholars classify religion as a "self-referential" system. In other words, the objects to which the system refers, i.e. the gods, aren't present in any normal sense of the term. This poses a unique problem for the study of religion that scholars of, say economic class, gender, or politics, don't face. When human beings pray to a god, make offerings to a goddess, paint pictures of angels, cast out demons, run from the ghosts of a haunted house, and so forth, the object of the action is imagined...it is, to use a technical term from the cognitive sciences, a "representation."

Of course this is not to say that the objects about which the representations refer do not exist (who knows?!). Imagine for a moment that your best friend is sitting at a local café and sipping on a strong cup of coffee. There, you just imagined something that could be very much real, but your imagination of it was nonetheless just a representation. Now, imagine that your friend is a dinosaur, say a Tyrannosaurus-Rex, hanging upside-down from the ceiling of a rainbow-striped

dumpster. Now, you've just imagined something that could not exist, but you imagined it nonetheless. And, both representations came to you quite naturally. You didn't have to strain a bit – your brain represented both just fine. In this sense, your representations are very "real." They have tractable mental properties.

Though counter-intuitive, the cognitive science of religion finds the content-claims of religious systems to be orthogonal to the actual object of study. In other words we are more interested in the operations of the cognitive mechanisms that produce, constrain, and transmit religious representations than in whether those representations refer to external realities. Whether or not each of the above examples exists or doesn't makes little or no difference at all to the study of the brain mechanisms that are involved in their production. Cognition, which E. Thomas Lawson has defined succinctly as "the set of processes by which we come to know the world," is the object of study. Thus cognitive science, again to use Lawson's concise language, "is the set of disciplines which investigate these processes and propose explanatory theories about them." (Lawson 2000, p. 75)

This approach constitutes the "naturalness of religion" thesis (not to be confused with naturalism) because cognitivists believe that, for better or worse, our mind-brains seem to be "hard-wired," to borrow a metaphor from computer science, in such a manner that religious representations emerge quite naturally as an aspect of ordinary cognition. So, religious thinking, like the thought experiments we performed at the outset of this chapter, is quite natural. (Boyer 1994; Barrett 2000) This further suggests, and experimental evidence has confirmed, that religious thinking is merely

a certain type of regular thinking...that is, the brain that balances your checkbook, that paints pictures, that cheers for football teams, and everything else, is the same brain that prays to the gods, makes offerings to goddesses, paints pictures of angels, casts out demons, and runs from the ghosts of a haunted house. The cognitive science of religion is a sub-field of cognitive science. The latter explores thinking in general; the former explores religious thinking in particular.

The Cognitive Revolution

It is hard to pinpoint exactly when and where the cognitive sciences originated. Owen Flanagan (1991) has argued that there are many predecessors – Aristotle, Descartes, Kant, James, Freud, Piaget, Kohlberg, etc. – who contributed to its development. Among the many, one sure bet is to start with Noam Chomsky. His 1957 publication, *Syntactic Structures*, and later many other subsequent publications (e.g. Chomsky 1965, 1972, 1975, 1980, 1986, 1993), put forth the radical theory that human beings learn language from culture because of the way the brain works...not because of the way culture works (in fact, later scholars [Sperber 1975, 1996; Lawson and McCauley 1990; Boyer 1994, 2001] will point out that culture works the way it works because of the brain, not the other way around). The prevailing theory of Chomsky's day was that children learn to speak and comprehend, and later read and write, language by memorizing and imitating the thousands of sounds, words, sentences, and so forth heard from birth. For example, mommy points at the poodle and says, "dog." Child points at the poodle and says, "dod." Close enough. The

child's mimicry reveals that she or he's gotten it. Simply continue to add more and more words to the little child's sponge-like receptor called a brain – the black box, according to B.F. Skinner – and you've got the makings of an active language. (Skinner 1953) This process seems, like other socio-cultural theories, to be self-evident. Why else do children raised in the United States say "hello, friend!" but those in Bangkok, Thailand say "*sawasdee, khrap/khaa*!" and those in Tokyo, Japan say "*konnichi-wa*!"

Chomsky did not fully accept this "self-evident" process, though. He was uncomfortable with some of the puzzles that this model of language acquisition presented. For example, say the following sentence to yourself (yes, out loud): "My invisible blue water-bug eats backwards." You just learned a new sentence, which most likely has never been spoken before I coerced you into saying it. But, there's a problem. I made it up. Yes, that's right. I completely invented it. So what? Well, if language is "picked up" from speakers around us, then how are novel sentences ever generated? How is it that I can produce sentences that I've never "experienced"?

Well, you might say, all you have to do is memorize new words and put them together into a certain grammatical structure and you get the new sentence. If you are thinking that...then you have intuitively grasped Chomsky's notion of "syntactic structures." (Chomsky 1957) For, Chomsky pointed out, how does the speaker of the novel sentence know where to put the words in a novel sentence? The only way it can be done...and this is how it is actually done in real life...is that every word is something like a "symbol" (the word waterbug "stands for" a waterbug) that has to

either be a thing or an action. Once it is "catalogued" by your brain as one or the other, the brain automatically puts it in its proper place (hence syntax). Even though I had never heard the sentence above, I knew instinctively if you will, how to say it. And, it sounded perfectly "normal" to you (at least syntactically).

Here's a second puzzle of the socio-cultural acquisition of language thesis. Five minutes or so after the child in the example above, let's call her Betsy, points at the poodle and says, "dod," she points to the chair and says "dod." Then she points to the cat and says "dod." And then she points to mommy and says "dod." In fact, to the dismay of her hopeful teacher-parents, little Betsy seems to think that everything is a dog! What's the problem? Clearly, little Betsy is actually thinking (though, by adult standards, not very accurately). She is not simply regurgitating a referential term. She has internalized a word that has some reference in the world, but she seems intent to choose object(s) to refer to that are not in-line with what the parent "teaches" her is a dog. If humans were merely language-sponges (or culture sponges, for that matter), then why would little kids the world over make the mistake of confusing "dog" with "cat" or "road" or anything else?

Still not convinced? Here is another puzzle. Eventually, Betsy will grow to the age in which parents will cease to "baby talk" to her, which, by the way, strangely seems to be a cross-cultural phenomenon. (Gopnik, Meltzoff, & Kuhl 1999) At that point, they will begin to talk to her like she is a mature individual. This means, strangely, that they will stop finishing their sentences. That's right. They'll only say

half or so of what they mean to say. Let me give you an example. See if you can finish these thoughts:

(1) If you even think for one moment that....

(2) Get inside this house or I'll.....

(3) Oh no! Don't.....

(4) What did you....

(5) Life is like a box of .....

No matter who you are, I suspect that you came up with some words that finished my fragments. How in the world did you do that? We are not even in the same room together, and yet you quite naturally inferred what I was intending to say! What a miracle. And yet, I'll bet your answers differed slightly from other people's answers (except for #5, which is a special case). If language acquisition is word to word, then fragments could not be completed by a listener...at least not as easily and accurately as we perform in our everyday lives. Obviously, something is going on in the brain that is much more complicated that merely "picking up" language from culture.

Finally, consider this. Anyone who has studied Thai or Japanese knows that "*sawasdee, khrap/khaa*" and "*koniichiwaa*" mean the roughly the same thing as "hello, friend." Anyone who has studied French would know that "*bonjour*" means the same thing as well. In Spanish it's "*hola*"; Italian, "*bonjiorno*"; Mandarin, "*jing-hao*"; Cantonese, "*ni-hao-ma*"; Malayalam, "*sukhamanno*"; Hindi, "*namaste*," and in German, "*wiegehts*." How is it that these languages all share the same concepts? And

how is it possible to translate languages into another? If all languages are different, then translation should not be possible at all. Yet, we do it all the time (some of us better than others...though effort might play some role in that).

All of these puzzling facts point to one conclusion...that human brains are very active in the language process. We can utter and understand novel sentences. We can make referential mistakes with words. We can complete others' incomplete thoughts. And we can translate from one language into another.

These sorts of clues (among many others, in fact quite complicated linguistic research with which we needn't concern ourselves here) forced Chomsky to re-evaluate what linguists had long thought about the processes of language-acquisition. Eventually, Chomsky postulated that the brain must come pre-wired for language with a Language Acquisition Device or LAD. There could be no other explanation, he reasoned, for the striking fact that there is complete (as far as anyone can tell) universality of these, and other, recurrent features of language.

Chomsky's theory of the LAD, like many theories in a budding science, was later proven to be problematic. Yet, the (positive) damage had been done. He had ignited the cognitive revolution by showing conclusively that human behavior is not simply a product of culture. Human brains are much more active than that. Of course cultural products play a very important role, but products are only one-side of a two-way street.

In turn this meant that naturalism was back because Chomsky proved that the brain actually generated and transformed cultural products (e.g. "howdy, friend"), and

it did so in patterned ways. Thus, culture was structured along the lines of human cognition. For example, every single sentence in the world, regardless of what actual language it was spoken/written in, consisted of a noun phrase (a doer) and a verb phrase (a doing). This is a universal rule of grammar and such universal rules are what make translation possible. In this sense, Chomsky changed the notion of "rules" from how the non-naturalistic socio-culturalists had understood it. He argued that behavior is not only rule-governed, but the rules are in the brain before they are in culture.

Chomsky's theories were a watershed for the human sciences because they showed that through careful reasoning and clever experiments, we could study how the human mind (the "mind" is a shortcut term for all the jobs the brain organs perform) actually works. As I said before, naturalism was also back because it was now clear that intentions, the pillar of the non-naturalists' criticisms of naturalistic approaches to human behavior, actually had material properties. The brain produced them.

I am, of course, greatly simplifying Chomsky's very complex arguments and evidence for the cognitive basis of language (and all behavior). But, my reasons were noble. The point has been to show you the key feature of cognitive science...that the brain is chock full of structures that constrain the way humans can and do behave. And, to the chagrin of socio-culturalists, this means we can use science to study humans after all, because humans are physical things that function according to causal laws.

Cognition, Culture, and the Study of Religion

As I said above, few cognitivists still believe Chomsky's theory of LAD. Nonetheless, nearly all believe his general approach was the best method we've generated thus far for explaining human behavior. We have great confidence in this fact because many other theories, and much more evidence, followed Chomsky from a variety of otherwise disparate fields. Cognitive science is necessarily interdisciplinary because cognition is responsible for how we think (philosophy and psychology) in all cultures (anthropology) according to mathematically tractable information-processing rules (artificial intelligence) that cover all aspects of human life, including not just language but most symbolic-cultural systems we find recurrent in human societies. This includes religion.

One of the first attempts to apply the cognitive approach to other cultural-symbolic systems was Dan Sperber's *Rethinking Symbolism.* (1975) Sperber's groundbreaking work offered an insight that would later be crucial to the cognitive science of religion: cultural symbols are so inherently multivalent (by socio-culturalists' own account) that the proper object of the study of culture should be the mechanisms that produce and transmit those symbols. For, what is "culture" other than the collective outputs of human mental representations that spread and stick, to use amateurish terms, in a given population? As Sperber has written:

> Just as one can say that a human population is inhabited by a much larger population of viruses, so one can say that it is inhabited by a much larger population of mental representations. Most of these representations are found in only one individual. Some, however,

> get communicated: that is, first transformed by the communicator into public representations, and then re-transformed by the audience into mental representations. A very small proportion of these communicated representations get communicated repeatedly. Through communication (or, in other cases, imitation), some representations spread out in a human population, and may end up being instantiated in every member of the population for several generations. Such widespread and enduring representations are paradigmatic cases of cultural representations. (1996, p. 25)

Sperber is merely pointing out that what we call "culture" includes the collective kinds of thoughts, values, beliefs, attitudes, and other things (CDs, blue-jeans, etc.) that are generated by people and spread (successfully) to other people.

What follows from this insight for students of religion is remarkable. It shows us that religious systems, being cultural-symbolic systems, are susceptible to cognitive analysis. In 1990, based in large measure on the work of Chomsky and of Sperber, Lawson and McCauley did just that. They put forth a cognitive theory of religion that connected cognition and culture in the effort to explain certain cross-culturally recurrent features of ritual formation. Besides Stewart Guthrie's 1980 article, "A Cognitive Theory of Religion," Lawson and McCauley's work truly pioneered the discipline.

Action-Representation-System and Ritual Form

Lawson and McCauley's *Rethinking Religion: Connecting Cognition and Culture* set out, according to its own account, to "make trouble." (1990, p. 1) They argued that certain features of religious behavior could be explained by appeals to the processes and products of human cognition. While Sperber's work(s) focused on

symbolic mechanisms, Lawson and McCauley focused on religious ritual formation. They theorized, a la Chomsky, that because human beings are born with an "action-representation-system" that informs judgments about actions, events, happenings, etc. in our world, the ARS constrains how rituals can be formed. In other words, built-in to every brain is a kind of a tacit "theory" about what constitutes an action. An action is, we all know despite having never learned it from anyone, an event in which a thing does something to a thing (or, passively, something is done to a thing). Thus, our cognitive general ARS is constrained by the following components:

DOER → ACTION → RECIPIENT

Examples of this ARS are not hard to find. You drank wine. John washed the car. Brenda washed her hair.

However, what is important is what is tacitly understood. Notice in the above examples what sorts of things are capable of being the doer...only "agents." That is, only things that have "intentionality." I did not say, because it is quite weird, wine drank you. The car washed John. The hair washed Brenda. All of these action representations are weird because in each an object is represented as an agent, which breaks the rules of cognition.

Now, what would be even weirder would be "washed the car John"; "washed her hair Brenda"; "drank wine you"; and the weirdest yet, "washed John car the", or, "washed Brenda hair her". You can probably just sense that something is very wrong with them. That is an important feeling because it reveals that humans have ingrained in their brains a sense of "well-formedness" of actions.

Now, what does this have to do with religious rituals? Well, let's take one example: The priest baptizes the baby. First, notice that the action itself has to follow certain rules. Second, notice that it is a "well-formed" action. Third, notice that, in terms of the ARS, the action "The priest baptized the baby" is exactly the same as "The man poured water on the baby." So, what makes a religious ritual different from an ordinary action? What makes baptism different from just pouring water...since they are the same action?

The answer that Lawson and McCauley give is quite ingenious. What is different about a religious ritual is that people represent it differently. We might say that there is another layer of representation – a symbolic layer – that rides atop, for lack of a better way to say it, on the general ARS. Said structurally, "The man, who is a priest, pours water on the baby." Now we are in a whole new ballgame, so to speak. By virtue of the fact that the man doing the action is a priest, and he is performing the action in the context of a religious ceremony, the action being performed becomes "religious."

Of course, this leads to another question. What makes a representation (e.g. "man") a religious representation (e.g. "priest")? Now it gets complicated. A religious representation is a representation that postulates the existence of superhuman agents. These things/beings are superhuman in so far as they are like us in many ways (they think, have emotions, etc.) but not like us in many other ways (they're invisible, have extraordinary powers, etc.). And, they are postulated as

agents. This means that, by the rules of the ARS, they can do things. They can act on us and on the world around us.

So, let's get back to the priest. What makes a priest special, or different, from an ordinary man? The priest is special because a superhuman agent made him special (notice, through a ritual). Clergy members get their "specialness," their power if you will, from the superhuman agents who "blessed" them with it.

Consider what makes a priest a priest. A priest is an ordinary man who undergoes ordination, that is initiation into a religious system. Who ordains priests? Other priests, of course. Who ordains those priests? Other priests, of course. Who ordained them? Other priests...you know where this is going. Through a process that Catholic theologians, for instance, call "apostolic succession," a clergy member is endowed with special power through a system of ordination that goes all the way back to...the very first superhuman agent (God in the Catholic system). If you know Christian history, you will note that Jesus, who is really God according to the Nicene Creed, ordained Peter as the first bishop. This got the ball rolling, so to speak. And now every Catholic priest is more than just an ordinary man because of his ordination, which gives him the special powers endowed by the postulated superhuman agent of the given religious system. As we shall see in Chapter Four, this same general principle applies in Buddhism. We can go so far as to say, given the universality of the ARS, the principle applies in most if not all religious traditions.

There is, of course, much more to Lawson and McCauley's theory. But, you should have by now gotten the general thesis...that cognition constrains culture. That

which we see as cultural acts, such as baptism rituals, is actually generated according to the rules of cognition. Those rules, the ARS, are not learned from culture. We are born with them (hence the naturalness of religious thesis).

Though powerfully robust, Lawson and McCauley's work does not exhaust the research into the cognitive foundations of religion. While they have focused on religious actions, i.e. ritual performance, others have explored the cognitive foundations of religious ideas. Stewart Guthrie and Pascal Boyer have supplemented Lawson and McCauley's book with Guthrie's 1993 publication of *Faces in the Clouds: A New Theory of Religion* and Boyer's 1994 publication of *The Naturalness of Religious Ideas: A Cognitive Theory of Religion* and 2001 publication of *Religion Explained: The Evolutionary Origins of Religious Thought*. Let's explore each of their theories in turn.

Hyperactive Agency Detection Device (H.A.D.D.)

Just by chance, as Lawson and McCauley were working on their cognitive theory of religion, Stewart Guthrie and Pascal Boyer were generating, independently of one another, additional cognitive theories of religion. Guthrie's research explores the phenomenon that he calls "anthropomorphism," in which humans attribute human characteristics (e.g. agency) to non-human things. According to Guthrie, anthropomorphism, "from voices in the wind, to Mickey Mouse, to Earth as Gaia," is an involuntary universal feature of perception...and a primary cause of religion. (1993, p. vii-viii)

How does this work, exactly? Think of this. You wake up in the middle of the night and feel thirsty. So, you venture cautiously down the stairs toward the kitchen. Your eyes have yet to adjust to the darkness, and just as you reach the bottom and begin to turn the corner, you catch out of the corner of your eye something that moves. Your heart begins to race. Your senses are on high alert. You slowly, quietly, squint hard to make sense of the figure. Finally, it comes into focus as...the coat tree in the corner.

These kinds of experiences happen to us all the time. We are prone to attributing agency to non-agents. In fact, argues Guthrie, we are overly sensitive to the existence of agency in our world, so much so that we often misattribute agency where it is not. But, importantly, we rarely do the opposite (attribute non-agency to an agent). Can this be true?

Well, imagine yourself in the forest. You notice something move just to your left. You immediately peer over to detect what's there. After all, it could be out to get you. But, to your relief, it was just a tree limb moving in the wind.

Now, imagine you see a bear just ahead and to your right. According to Guthrie, and anecdotal evidence seems to confirm this, not one single person in the entire world would mistake the bear for a rock. Rocks are mistaken for animals all the time, but we never mistake animals for rocks!

This is more than just an interesting anecdote, according to Guthrie. He theorizes that it is proof for the evolutionarily designed features of human cognition. The reason why we over-attribute agency in our world is because it is a competitively

advantageous strategy to do so. In other words, to mistake a rock for a bear is a little scary (and later a little embarrassing, maybe), but to mistake a bear for a rock could be deadly. Thus, through evolution, the human brain was selected to have what has come to be called a Hyper-Active Agency Detection Device or HADD. Simply put, we anthropomorphize because it helps us survive. Of course the not-so-subtle implication here is that anthropomorphism is a cognitive error. However, don't feel bad about making lots of mistakes. To do so is natural.

How does this relate to religion? Anthropomorphism is a universal feature of perception. This means that people everywhere do it all the time. Anthropomorphism is the attribution of agency onto the world (where, often, none actually exists). Religion involves the attribution of agents in the world (where, often, none are *actually* seen to exist). Thus, anthropomorphism causes religion. Religion, for Guthrie, is the natural attribution of agency onto the world. Gods caused her to win the lottery. Demons made me do it. Ghosts haunt the house. Angels saved my life. The devil is wearing a blue dress. The goddess killed the animal.

Intuitive Ontology

You might be thinking to yourself by now, "Okay. I can see that we do all these things naturally. And I admit, with some hesitation, that these things all influence religion in some way or another. What I can't figure out, though, is where does all of this come from?" Enter Pascal Boyer.

Boyer has added meat to the bones of the cognitive science of religion. Lawson and McCauley, and Guthrie, had put forth very powerful theories of religious behavior. Boyer's work supplemented those theories with a catalogue of ideas that are central to human cognition and directly influence religious thinking. Boyer has shown that all religious ontologies, or theories of the way the world is (according to different religious traditions), are constrained by cognitive functions involving a kind of "intuitive ontology" that humans have from birth.

Let's perform a thought experiment. Close your eyes. Think of walking along a beautiful sandy beach. Think of the soft white sand underneath your feet. Think of the ocean's waves rolling gently over your toes. Think of a sleek dolphin jumping out of the water just off the shore. Think of a young child building a castle in the sand. Think of the sun setting at the end of the day.

That was pretty easy. Right? We might say that not only was it intuitively plausible, it was even pleasant. Yet, had I provided another representation to imagine, the feeling would have been quite different. Try this.

Think of yourself on a beach with laughing sand. Think of the dolphin building a castle on the beach. Think of the setting sun saying, "Good night. See you tomorrow at sunrise."

How do these representations make you feel? Not "right," I suspect, because they violate our intuitions about what the world is like and how it is supposed to work. Dolphins are supposed to jump out of water, not build sand castles. The beach not supposed to laugh, and of course the sun is not supposed to talk.

But how do you know all of this? Did you learn it from your culture? It is possible that someone sat you down at some point in your life and explicitly told you all of those things? That's possible, but unlikely because, posits Boyer, we come into the world (thanks to our genetic package) with an intuitive ontology that gives us a sense of what the world is supposed to be like.

Our intuitive ontology is rule-governed. What does this mean? It means that, despite what critics say, humans are not genetically pre-determined to think only some thoughts and not others. Nothing in your genetic package pre-determined that you would think about talking suns and castle-building dolphins. But, your intuitive ontology did enable you to have that thought, for it to make (some) sense, and for you to know that it was weird.

The above examples, as I said, constitute violations of expectations about the workings of the world that are present in our intuitive ontology. Expectation-violations are the cause of the emotion of surprise. And they are the roots of religious representations. How is it possible to get religious ideas from natural ontology?

Religious representations are violations of the expectations of the intuitive ontology. Religious agents are "superhuman" in the sense that they many of the same postulated qualities as humans, but with violations. For example, gods are most often thought of as beings that live somewhere, that have minds, that can hear you, see you, talk to you (if they choose), that can do stuff (to you, if they choose), that get mad, jealous, happy, and on and on and on. But, don't be fooled. They're also quite different from us in other important ways. Gods often don't die. They are invisible.

They might be able to know the future before it happens. They can see everywhere all at once. They don't eat food, but they don't get hungry.

According to Boyer, our intuitive ontology is packed with five main things that are found in the world:

(1) natural objects (e.g. rocks)

(2) artificial/human-made objects (e.g. chairs)

(3) plants (e.g. flowers)

(4) animals (e.g. birds)

(5) humans (e.g. Bill Clinton)

As we travel along the ontological hierarchy (from one to five), the "things" become more complex and therefore have more, or at least different, expectations associated with them. Natural and artificial objects are non-living things. They don't move of their own volition (i.e. they have to be "pushed" by something). They don't grow. They don't need food. They aren't born. They don't die.

Plants are "living" things. They can move (slightly) on their own volition. They grow. They need sustenance to live. They die.

Animals are living things that have volition. They grow, die, need food and water, are born, can think (however primitively), etc.

Humans are animals with sophisticated minds. In our dealings with other people (even from birth), humans just seem to know how to interact with them. We read their facial signals. We infer their feelings. We manipulate their emotions. We show our disgust or pleasure. We just know, by a very complicated but fairly reliable

method, what other people are thinking. Human to human interaction involves folk psychology.

Now, think again about the objects of religious representations: gods that don't die; goddesses that are jealous; demons that don't have to eat; ghosts that are invisible; spirits that can foretell the future. What do they all share in common? They are all counter-intuitive representations that are non-natural, but learnable. (Boyer 1994) They are not completely different from our intuitive ontology, but neither do they exactly fit in it.

Interestingly, too, representations that violate expectations – those that are surprising – are also memorable. We tend to recall surprising facts much more reliably that non-surprising facts. Consider the following story.

> Tim Smith is fourteen years old. He has just begun his walk home from school in a suburb just outside of a large city. Tim's walk takes a bit longer than most teenagers because he has no legs. The walk itself is approximately one mile long, and it takes Tim about four days to complete. Hopefully he will make this journey safe this time, because last week a pink dragon bit him. His mother didn't like that much at all because Tim was late for dinner that night.

By my count, there are seventeen facts stated in this story. Yet, were I to ask you to recall them, you would likely remember three parts of the story best:

(1) Tim has no legs.

(2) One mile takes four days to complete.

(3) A pink dragon bit Tim (and made him late for dinner)

After these facts, the others are less reliably recalled. You might not even remember some facts at all (e.g. that the suburb is outside a large city).

So what does this have to do with religion? If you think back to Sperber's account of what constitutes a public representation (see above), it should become clear. One of the reasons why religious ideas have such a widespread recurrent existence is that they are very memorable. We can safely include them as part of "[that] very small proportion of...communicated representations [that] get communicated repeatedly." (Sperber 1996, p. 25) Were you to take the above story to be true, you more than likely would repeat it to a friend or acquaintance. Such stories, those that include surprising facts, are the stuff of gossip. And, as Boyer later points out, human beings are insufferable gossip-hounds. We are gluttons for interesting information. (Boyer 2001)

So, when someone says to you that little Rover, the family puppy, has been taken to heaven by angels after being hit by a car...the idea has power over you. It is an idea that is minimally counter-intuitive, and one that has certain emotional benefits. It is cognitively optimal.

Theological Correctness: What People Really Think

The works of Sperber, Lawson and McCauley, Guthrie, and Boyer have been so impressive that they constitute what Thomas Kuhn called a "paradigm." (Kuhn 1970) Paradigms are frameworks for thinking about an object of study that seem to be so sound that other scholars accept them as being facts...and then work within the

system to fine-tune its theories and data. The collective theories of these scholars have explained much about the workings of religion in our world, but they've not explained everything. Instead, they point to new avenues of research. Developmental psychologist Justin Barrett has taken one of the most interesting research paths in the field. Though he writes broadly on neo-Piagetian child development, his research on "theological correctness" merits our attention here. As we shall see, this work is fundamental to the case studies that are taken up in the next three chapters.

If we think about all of the cognitivists' claims together, something interesting emerges. Sperber pointed out that because ideas spread in a given population, they are always being slightly transformed, first when people speak them publicly, and then second when the recipient of the representation hears and processes it. By this account, no two ideas are ever exactly the same. In other words, you can't step into the same river twice. Representations are always changing.

Yet, Boyer claims (and Sperber agrees) that some ideas, those that achieve a cognitive optimum, do become transmitted successfully. Just think of some such representations: nursery rhymes, songs, stories, poems, etc. While these stories do change slightly over time, their main "gist" is highly transmittable. Generation after generation learns, memorizes, and later recalls and re-tells representations. They become "classics."

Certain religious stories, poems, ideas, etc. seem to spread in the same way. I can still sing, "Jesus Loves Me...this I know...for the Bible tells me so..." I can also remember certain passages from the Bible, certain Psalms, certain prayers ("Now I

lay me down to sleep..."), etc. Religion, just like popular culture, relies on devices like mnemonics, rhyme and meter, songs (harmony, melody, etc.), and so forth, for the transmission of religious representations. Furthermore, religions also form certain ideas into theological doctrines, which are passed on from leader to follower in religious guilds, sometimes through oral memorization and other times in texts. Theological doctrines, then, begin to formulate a religious system when adherents commit their teachings to memory. Now, which is it? Do ideas stay the same (i.e. become "traditional") or do they constantly change? Well, the answer, according to Justin Barrett is...both.

Barrett noticed that people sometimes make comments that suggest that they have views that are in direct contradiction with what they profess to believe. When asked traditional theological questions, something like "Do you believe God is all-knowing and all-powerful?" they would provide theologically correct answers (probably those they had learned). Yet, when asked different kinds of questions, or asked to perform certain kinds of cognitive tasks that were designed to reveal tacit presumptions, they revealed (unknowingly) that their on-line religious notions were quite different than, even in contradiction with, what they professed to believe. So, Barrett's research suggests that both Sperber and Boyer are correct. Humans have the capacity – and tendency – to both memorize and transform religious representations. Sorry clergy, but according to Barrett's research, it appears as if theological correctness and its counterpart, theological incorrectness, are not only natural but also most likely inevitable.

CHAPTER FIVE

BUDDHIST GODS AND THINGS

Deities (or what we have called superhuman agents, or SHA) exist and do things to us. At least that's what religion seems to be all about. Religious people simply presume so. Of course religion also involves doing rituals and other sorts of activities, as well as group involvement in a church, temple, synagogue, or equivalent, but all of this business is predicated on presumptions about SHA in the first place. In other words, what we do tends to follow from what we think (or what someone in our religious system tells us what to think). Religious behavior, then, turns on presumptions about SHA exist – and so we ought to do what they want us to do (or not do, as the case may be) or else suffer the consequences.

If religious thought involves the presumption that SHA exist, then it must be the case that theologies involve postulations about such agents. Furthermore, this categorical property ought to apply in all cases. All religious systems must have theological postulations, and on-line presumptions, that SHA exist and are to be engaged for practical benefits. Yet, anyone who is familiar with the various religions of the world is aware that one religious system, Theravada Buddhism of South and Southeast Asia, seems to challenge this theory and therefore our understanding of what religion is all about. Theravada Buddhism is a very widespread and purportedly

non-theistic religion that has been around for some 2500 years. (Gombrich 1988; Robinson & Johnson 1982) Therefore, we have a problem. If Theravada Buddhism constitutes a successfully transmitted non-theistic religion, then religion cannot be simply about the postulation and presumption about SHA. Or, more seriously, if there is a religion that is significantly unlike all the rest, then we might not be able to compare religions at all. Thus, before we can proceed to any other discussions about religion (in general) in our world we have to settle the problem, or else our discussion will be imprecise and incoherent – two problems which scientists deplore.

Metatheory and the Category of Religion

Fortunately, enough work has been done on issues related to this problem that we can offer solutions. One approach is "metatheoretical" because it involves addressing theories of theory. Metatheory requires that we ask, "what theory supports what counts as a category?" In this particular case, the category in question happens to be "religion," but the same question could apply to any other category, like "umbrella" or "zebra." Without much reflection, what things like umbrellas and zebras (and religions) are seems to be self-evident. An umbrella is something that shields us from the rain or sun. To be even more precise, an umbrella is "a collapsible shade for protection against weather consisting of fabric stretched over hinged ribs radiating from a central pole." On the other hand, a zebra is a striped horse. Or, technically, it is "any of several fleet African mammals (genus *Equus*) related to the

horse but distinctively and conspicuously patterned in the stripes of black or dark brown and white or buff." At least that's what my dictionary says. (Mish 1991)

However, what if the umbrella material that is stretched over the hinged ribs radiating from a central pole is thin rubber and not fabric? Would it still be an umbrella? What if the zebra had red and green strips, instead of black or dark brown and white or buff? Would it still be a zebra?

What if the umbrella had no fabric (or thin rubber) at all to protect you from the elements, but instead was just a metal pole with some hinged ribs attached to it? Would it still be an umbrella? What if the zebra had no stripes at all? Would it still be a zebra?

Your instinctive answers to these questions are probably "yes" to the first two, but "no" to the last two. Why? The classical definition of what makes a thing a thing is that it has to fulfill "necessary and sufficient conditions." In other words, a thing is a thing *if and only if* it has certain properties, like protective fabric in the case of the umbrella and stripes in the case of zebras.

This way of defining a thing can be quite useful. For one, it allows for a thing to be defined either by its function (e.g. umbrella = protection from the elements) or its defining features (e.g. zebra = stripes). Also, this way of defining a thing allows us to differentiate between the types of things that are in our world, which is an important skill we need to survive. Thus, classical definitions allow us to say, with some sense of certainty, that a collection of thin metal poles does not constitute an umbrella and a horse without stripes does not constitute a zebra.

However, this classical way of defining objects has a serious limitation that affects our study of religion. Although it works fairly well with specific examples like zebras and umbrellas (and very well with mathematical concepts), it is not quite as useful for other things like "birds" and "persons," (and "religion") for example. What makes a bird a bird? The instinctive answer is that it is an animal that it has a beak and wings, and can fly. Yet a penguin, which is certainly a bird, cannot fly. Furthermore, consider what makes a person a person, an American an American, an African-American an African-American, and so on and so forth. We would be hard pressed to come up with necessary and sufficient conditions for what makes each of these things what they are.

A common – and very useful – way that humans cognitively represent "on-line" (i.e. instinctually, or "on the go") is through the use of prototypes. For reasons most likely related to the processes of natural selection, human beings are born into the world with an "intuitive ontology." (Boyer 1994) In other words, we have from birth the capacity to differentiate, presumptively, the objects of their world into types. Babies know very early on, possibly as early as one-hour old, that a person is a different (actually more "attention-grabbing") kind of object from a non-person object. (Gopnik, Meltzoff, and Kuhl 1999) Later in childhood, we become even more sophisticated in our mapping of the world. We know that dogs are different from both persons and plants (though for a short time we might call all animals "doggy"), and that plants are different kinds of things than rocks. (Boyer 1994)

As it turns out, we do not necessarily, in our daily lives, employ the classical way of defining things that philosophers and scientists tend to revere. Rather, we use (among other strategies) prototypical thinking, which is much more useful because it is more efficient; it does not require the laborious (and often limiting) task of identifying the conditional properties that define an object. Rather, we infer, or "theorize" if you will, from a prototypical image of one thing whether or not and in what sorts of ways another thing is like that prototypical thing. Thus, prototypical thinking leads us away from the "either-or" distinction of classical definitions in favor of a "more-or-less" kind of thinking. (see Medin 1998)

Consider an example that is illustrative of this process, the case of "bird." Penguins, which you will recall don't fly, prohibit us from making a classical definition of a bird, or they at least make such a definition useless, because such a definition would not capture the essence or function of what we typically think of as a bird. If we had to define a bird in such a way as to exclude "flies" as a necessary property, then the definition would seem not to capture what we tend to think of as what a bird is. A prototypical definition, however, captures a rich "feel" for what a thing is. A robin, for example, is a good prototype of a bird, and so in our everyday thinking we might compare all birds against this prototype (in one socio-cultural context, remember) and thus to be "more or less" like robins...and therefore "more or less" a bird. A penguin is a bird, but "less so" than say a parakeet or a jay.

In this sense, religion might be more fruitfully defined prototypically than classically because the latter is a seemingly impossible task. A religion involves

postulations and presumptions that SHA exist, and any religious system that includes such features counts, in most people's minds, as more like a religion than one that does not (note that definitions follow from theories). Thus, if Buddhism does not include such features, it could still be considered a religion (like a penguin can be considered a bird), though a peculiar one by comparison. This is a very useful way of thinking about religion, or any object for that matter, because it is much more in line with human beings' actual cognition than classical definitions are.

Furthermore, when it comes to Theravada Buddhism, we find that Buddhism does involve both postulations and, most importantly for our purposes, presumptions about SHA. It is, therefore, very much a prototypical religious system. Despite what many books written for a Western audience say about Buddhism, Buddhists in most parts of the world are in fact quite "religious."

Buddhism by the Books

In the image that has been circulating in the Western world for some time, Buddhism is presented as an austere, highly philosophical, wisdom tradition that relies not upon gods and superstitions but rather on keen mental and ethical skills that can be honed by any spiritually self-reliant individual. (e.g. Rahula 1959) In this view, the Buddha is represented as "just a man" and Buddhism therefore as not a religion per se, but rather as something like a "way of life." As a result, Buddhism has served over the years as a test case for scholarly definitions of religion, or as an exception to the rule. (see B.C. Wilson 1999b)

Unfortunately, this image does not represent Buddhism as it is actually practiced in most parts of the world. In reality, Buddhists are not very different at all from practitioners of other religions. They too conceptualize their central figure (i.e. the Buddha) as an SHA, and they worship him (and other SHA) in hopes of achieving practical benefits. Yet, the counter-image persists in the West. Why is this so? There are historical reasons.

The form of Buddhism that most Westerners know is actually a form of what one scholar has called "Buddhist modernism" and is based nearly entirely on a canonical view of the religion that began sometime during the 19th century in South Asia, primarily in Sri Lanka, in large measure as a response to colonialism. This movement has been dubbed "modernism" because, having begun among urban, Western-educated, middle-class reformers, it mirrored the kinds of modernist movements found throughout Europe at that time. (Bechert 1966, 1967, 1973)

These revivalist-reformers felt that the best way to battle the Christians and therefore colonialism by extension was to revive and reassert their Buddhist heritage throughout Ceylon. Like reformers in Europe, they used modern methods to do so. The revival and reforms were enacted by means of mass-education, public preaching, and the use of the printing press for the publication and widespread distribution of Buddhist materials. Since Christians had established missionary schools throughout Ceylon (Sri Lanka) throughout the latter stages of the colonial period, and an English-based education was a popular strategy for upward mobility among middle-class Singhalese, Buddhist reformers sought to counter the "Anglicization" of their society

by providing Buddhist alternatives. They decided to create their own Buddhist schools for the teaching of both modern subjects and of (modernist) Buddhism to the masses (who were, the reformers believed, too ignorant and superstitious to combat Christianity and overthrow British colonialism). Interestingly, an American, Henry Steele Olcott, and a host of other "anti-missionary" Westerners who had become interested in Buddhism and native resistance to the British Christians, assisted them in their endeavors. Olcott created a Buddhist catechism to ensure a "proper" Buddhist education for the masses of Singhalese Buddhists. Lay groups like the "Young Men's Buddhist Association," were also formed to rival their Christian counterparts' organizations and to provide Buddhist-based social activities and for networking. (Prothero 1995; Gombrich & Obeyesekere 1988; Bond 1988; Malalgoda 1976)

These revivalists also began to preach publicly their modernist version of Buddhism. They often challenged—and defeated in the eyes of many natives—the Christian missionaries in public debates through the use of reasoned and rational arguments supported by textual evidence from the Buddhist canon, the *Tripitika*. Their arguments were often grounded in the assumption that Buddhism was superior to Christianity because the Buddha was a noble philosopher who taught an empirically verifiable (and unsurpassable) modern philosophy. The Buddhist reformers dubbed Christianity, by contrast, as superstitious and not in-line with science and the modern world.

The education of the masses via Buddhist schools, lay organizations, and in public debates was augmented by the widespread distribution of "the word." Having

purchased several printing presses from Christian publishers, Buddhist modernists distributed vernacular versions of the Buddhist teachings to a general audience. In addition to the Pali scriptures, they wrote Buddhist tracts that served a reformist agenda—to awaken the masses out of their superstitious and empty rituals (i.e. traditional devotional practices).

The result of this effort was the creation of "Protestant Buddhism modernism" that reflected not the values of indigenous, pre-modern Buddhism but rather that of post-enlightenment Protestant Christianity, including ties to nationalism (Gombrich and Obeyesekere 1988; Tambiah 1992). Buddhist modernism emphasized individual choice, explicitly criticized popular practices, and in turn rejected the traditional authority of the *sangha* (community of monks) as preservers of the *dharma* (Buddhist doctrine). The "laicization" of Buddhism was legitimated by the argument that the truth of the *dharma* could be realized individually, through personal investigation of the teachings (thus demanding studies of the canon for oneself—ideally in Pali, if possible) and in personal experiences achieved via meditation. Buddhism was further Protestantized when modernists insisted that true Buddhism should bring about both worldly achievement and spiritual achievement. The most famous Protestant Buddhists of this time were Anagarika Dharmapala, a Singhalese layman who lived like a monk and worked for social change by putting into action modernist principles, and, of course, Colonel Henry Steele Olcott, in whose memory contemporary Singhalese celebrate a national holiday. (Gombrich and Obeyesekere 1988; Prothero 1995)

Thus, 19th century intellectuals, both Asian and Western, crafted this version of Buddhism to serve anti-colonial political agendas. These intellectuals presented Buddhism as a religion for the modern world because it was seen to be admirably philosophical and in-line with modern science. According to this view, the Buddha merely taught metaphysical and ethical laws of the universe that were empirically available to all through reasonable and rational study of and reflection on the *dharma*, or through personal insights achieved in meditation (this view of Buddhism might sound familiar). Of course devotional practices centered on the Buddha and other superhuman agents (including other Buddhas, bodhisattvas, arhants, relics, stupas, caityas, icons, and texts) could be found throughout South and Southeast Asia. (see Swearer 1995; Lopez 1995a; Spiro 1970) They were simply dismissed as superstitious, non-Buddhist, and in the cases of the northern schools of Buddhism – Mahayana, Vajrayana, and Tantra – Hinduized corruptions of the true *dharma* (believed to be preserved in the Pali canon like Christian truth was preserved in the Bible).

Contemporary scholars have pointed out that not only did this image misrepresent the tradition as it was practiced historically, it was actually perpetuated by "Orientalist" (Said 1979) intellectuals in colonialist contexts, and was sustained by narrow readings of a small number of selectively edited texts found in the *Tripitika* (texts which Schopen [1997] has pointed out were themselves the edited products of ideal-minded monks). Beginning in the 1960s, anthropologists and historians of religion alike, such as Melford Spiro, Stanley Tambiah, Richard Gombrich, Gananath

Obeyesekere, and others began to problematize this interpretation of Buddhism by focusing on Buddhism as practiced "on the ground." These scholars began to show that Buddhism had a rich religious dimension to it, that is, an orientation toward the worship of SHA. They showed that Buddhist modernism had foregrounded the "ought" of Buddhism (a common result of any study of religion based on canons) at the expense of the "is." Buddhism on the ground consists of copious merit-making rituals like *puja* (rituals of devotion performed to the Buddha and other SHA), *dana* (sacrificial giving to monks and other members of the Buddhism community), pilgrimage, and so forth, all of which were typically institutionalized in cults of *stupas* (burial mound that houses relics), icons, saints, and so forth.

Nancy Falk, in her 1972 unpublished dissertation on the cult of relics in Buddhism, also made a very important point concerning the nature of the Buddha for Buddhists. According to modernist textual readings, the Buddha was not only just a man during his life, but was now unavailable because at his death he achieved "*parinirvana*," or complete extinction from rebirth. Yet, Falk argued, the supposedly absent Buddha was actually not absent, and thus unavailable, at all—at least from the perspective of Buddhists on the ground. Nor was he just a man. Rather, he was seen as a SHA and was felt to be present in what she called "sacred traces," such as the relics housed in *stupas*.

More recent scholarship has confirmed Falk's hypothesis. Scholars have collected numerous popular stories that depict the Buddha as having many of the characteristics of deities in other religions. He is variously depicted as having perfect

golden-skin, as having perfect knowledge and vision (of the past, present, and future), as being vengeful at times and forgiving at other times, as commanding loyalty, as performing miracles, and so on and so forth. (e.g. Dharmasena 1991; Premchit and Swearer 1998; Schober 1997) Furthermore, using archeological inscriptions and other epigraphical texts from early north Indian Buddhism, Gregory Schopen has shown that monks and nuns – the supposed upholders of "pure" (i.e. modernist) Buddhism – commonly performed the very same kinds of rituals as the laity, such as donating gifts, building *stupas*, caring for deceased relatives, and burying the dead at sacred locations, all to accumulate merit and therefore acquire powers like the ability to perform miracles and healings, to be reborn as a deity, to cheat death altogether, and so forth. (Schopen 1997) As it turns out, Buddhists are very "religious" and therefore much concerned with the same kinds of practical benefits that persons of other religions are.

The separation between what scholars of Buddhism for long called the "Great" tradition (Buddhist modernism) and the "Little" tradition (i.e. Buddhism as practiced on the ground) creates another problem to solve. (Day 1988) Namely, how are we to explain this gap at all? If religion is the internalization of theology, we ought not to find any gap at all. If religion is not the internalization of theology, then from where do we get it?

Let's take but one case study. How can Buddhists simultaneously hold that the Buddha has achieved *parinirvana* and yet is still "present" to be worshipped, prayed to, etc.? There are two answers to this problem, because the problem is actually

based on two puzzles. The first puzzle is how a person can still be "alive" after death. The second puzzle is how a person can be represented as being "present" in objects (e.g. relics) that are physically separate from one's body. Let's take each of these puzzles in turn.

An answer to the first question requires that we understand how human beings conceptualize death in general because how human beings represent dead persons has much to do with the belief in the continuation of the Buddha despite his death and *parinirvana* (and all beliefs in after-life). The belief in the continuation of life after death is made possible by the cognitive capacity to represent objects as existing despite their apparent non-existence (as indicated by their absence from our immediate perceptual field). One of the first psychologists to study this phenomenon scientifically was Jean Piaget, who called it the capacity for "object permanency." (see Piaget 1926, 1954, 1969) Representing objects as existing permanently is so basic to our cognitive abilities that we often don't even notice that we do it, even though it is a quite remarkable feat. Consider this. You are sitting in the living room watching a movie with your spouse. In the middle of the movie, say during a boring scene, your spouse hits the pause button on the remote control and goes to the kitchen to make some popcorn. As she (or he) turns the corner of the doorway, she goes out of your sights. Yet, you know that she still exists. She is, according to your mind, simply somewhere else. Furthermore, you know that popcorn, a popcorn popper, bowls, salt, butter, etc. also exist, even though you have no direct perceptual evidence for this knowledge at your immediate disposal. So, how do you know these things

exist? Well, you don't, really. You presume that these things exist because you've "encoded" them, we'll say, in your memory. And, once an object is represented as existing, you represent it as always existing...at least somewhere in the world (e.g. in the kitchen cupboard). Thus, you can represent objects as existing because you have the capacity for "object permanency."

Now, might this capacity for object permanency have something to do with our belief in the after life? Well, sort of. Piaget's theories have been fine-tuned greatly in the past few years, and one of the most interesting neo-Piagetian discoveries is that our supposed object permanency is actually even more sophisticated than Piaget proposed. Our capacity for object permanency is actually domain-specific. We can conceptualize some kinds of things as existing outside of our perceptual domain, possibly forever, while we can postulate other things as actually ceasing to exist. Some things last forever. Others do not.

Think of this. Your wife re-enters the room with a big bowl of salty, buttery, popcorn. Your presumptions were correct! All of those things did exist! Now, you restart the movie and dig in to the snack. After twenty minutes or so, you reach down and finish off the very last kernel of the popcorn. To your appetite's dismay, the popcorn is gone.

Now, in some very peculiar sense the popcorn is not gone at all. Some philosophers, Buddhist philosophers for example, would postulate that the popcorn is not gone at all. It simply exists in "another form" in your digestive system. Yet, it is highly unlikely, that any layperson would represent the popcorn as "existing" as

something or somewhere else. Of course, the popcorn is in your stomach. But, in your stomach, it is being broken down by your digestive system, and when it exits your body, it will look (and smell) nothing like it did going in your mouth. According to our everyday cognition, the popcorn has ceased to exist.

This view of the non-existence of consumed popcorn should be rather uncontroversial. But, what about when a living thing, like a pet or a person, dies? Do we have the same ease in representing the living agent as ceasing to exist?

The psychologist Jesse Bering recently put this question to the test. In a very clever experiment, he presented elementary school children with a puppet show in which a mouse was eaten alive by an alligator (the experiment was performed in Florida, so the students had some familiarity with alligators). Before the alligator ate the mouse, the students were told that the mouse was having a very bad day. According to the story, the mouse had gotten lost and so had spent all day searching for its home. As such, the mouse was thirsty, hungry, and tired. Then, to make matters worse, the mouse happened upon an alligator, which ate it for dinner. As a result, the mouse was "no longer alive." (Bering 2001a)

Bering then asked a series of questions designed to reveal the children's intuitions about what was happening, if anything, to the dead mouse. The questions were divided along domain-specific lines. The first questions dealt with the domain of biology. The students were asked whether the mouse would, after having been killed by the alligator, eat dinner that night. Nearly all said, "no." Then, they were asked if the mouse would sleep that night. Again, nearly all said, "no." Thus, according to the

experiment, biological functions such as eating and sleeping seem, in the minds of these children, to cease upon death.

The next set of questions Bering posed to the children dealt with the domain of psychology, or with what the mouse was thinking or feeling. The students were asked if the mouse would feel hunger that night, would feel tired that night, and if the mouse was mad at the alligator for eating (and thus killing) him. Astonishingly, many of the respondents, especially among the younger group (ages 4-7) responded, "yes." Thus, though the mouse's biological functions ceased upon death, its psychological functions did not.

Based on these results, along with other research, Bering concluded that children could represent the cessation of physicality and biological functions of an agent quite easily, but have difficulty representing the cessation of psychological functions upon death. This is quite important because in prototypical thinking, what makes a living agent, like a human, a living agent is in fact that it has *psychological* abilities. In other words, a human is a human because it has a mind. The "essence" of human being, is its fully functioning mind.

Now consider that the etymology of the word "psyche," which although today means "mind," was originally the word for "soul." In nearly all cultures, after-life is represented as being the place where "souls" (or some culturally specific equivalent) go. This ethnographic fact seems to be explained by Bering's cognitive experiments. Humans believe in the continuation of a person's "essence," "spirit," or "soul" after death because our basic cognitive equipment, which has been designed to allow us to

interact with the people and objects in our world that exist outside of our immediate perceptual field, has great difficulty in representing the cessation of the psychological dimension of an agent. This means that humans presume that an "afterlife" exists because it is natural to do so. (H.C. Barrett 2001, 1998; H.C. Barrett and Behne 2001; Boyer 2001)

Now, let's return to the belief in the continued existence of the Buddha. As I said before, Buddhists are often taught that he is no longer around because he achieved *parinirvana*. If our theory is correct, then this idea would be, to quote Pascal Boyer, "nonnatural but learnable." (Boyer 1994, 2001) In other words, Buddhists could learn the idea that the Buddha does not exist any longer, but, because it is so unnatural, it would be a very difficult idea to entertain. We could predict that Buddhists would say in situations that require them to be theologically correct that the Buddha is in *parinirvana*, and yet in most other situations treat him as if that were not the case. And this is precisely what we find in ethnographic accounts of Buddhist cultures. Buddhists appear to have a "split-brain" because they simultaneously claim to believe in the Buddha's *parinirvana* and yet presume that their prayers and offerings to him are efficacious. (e.g. Spiro 1970; Tambiah 1970, 1976, 1984; Gombrich and Obeyesekere 1988; Swearer 1995; Southwold 1983)

Essences and Traces

As mentioned above, the Buddha is also represented as being present in sacred traces. These include relics (housed in *stupas*), icons, *Bodhi* trees, amulets, and other

such objects. While our inability to represent the cessation of psychological functions might explain the recurring belief in continuation of life after death in the form of spiritual essences, it does not explain why Buddhists (and many other religious people for that matter) presume that objects can be imbued with traces of the Buddha. For this, we will need a different, though overlapping, cognitive capacity.

The capacity that explains the phenomenon of sacred traces is related to what Boyer, drawing on the previous work of Rozin (1976) and Rozin, Haidt, and McCauley (1993), calls the cognitive "contagion system." (Boyer 2001) In this view, human beings have the cognitive ability to represent the transference of the "essence" of one object completely into another.

Consider this. You walk into your bedroom to go to sleep. You pull back the blankets to find, both to your surprise and to your disgust, that your bed is infested with bugs. There are little creatures crawling everywhere...all over your sleeping area, your pillow, your sheets, and so forth. What do you do? Most likely, you will disinfect your bed and covers thoroughly. You might even throw away your bed's dressings altogether (possibly the mattress, too).

Why would you go to such lengths? Wouldn't it be enough to simply remove the bugs? Probably not, because you would have a deep sense that the bed had become "infested" with the "essence" of the bugs (which is, to say the least, bad). Though the bugs can be removed, they have already done their damage because their essence has been, at least in our minds, transferred into the sheets, the blankets, the pillows, and the mattress. In reality, removing the bugs would suffice for proper

hygiene. Yet, most humans would want to go further. This is because human beings have a built-in contagion detection device that represents the transference of an object's essence into another object upon contact. Spiders, snakes, and other "creepy crawlies" are bad enough to see, but if one touches you, it is much, much worse (go ahead and image a spider crawling on your leg right now...).

Studies in which subjects were presented with objects that had come into contact with other defiled objects and thus had become infected with the essence of the previous object reveal this tendency. One of the most telling experiments along these lines involved asking subjects to drink out of a glass that had once had feces as its contents. Despite the fact that the glass had been thoroughly disinfected, most subjects balked at the experimenters' requests to drink out of it. Would you?

This contagion system seems to work both ways, however. Not only can objects be infected with bad essences, but evidence from cultures worldwide suggests that objects can be imbued with positive essences as well. Religious systems seemingly everywhere are populated with the notion that the essence of a holy person can be transferred into an object, which can in turn be tapped for efficacious power. In the case of Buddhism, much of daily religious life consists of attending to objects that are believed to have special powers, often because they are associated with holy men who themselves are considered to have special powers. The anthropologist Stanley Tambiah has noted a widespread cult of amulets in Thailand (but which exists in all Buddhist cultures), where even those individuals with little or no discretionary income willingly pay top-dollar for amulets that have been blessed by legendary

monks who are believed to have extraordinary powers. Once purchased, Thais keep the amulets physically near their bodies for protection against evil and misfortune. (Tambiah 1984) Similar phenomena have been documented in China, Japan, Africa, Europe, and the United States. (see Earhart 1993) Most likely, this kind of behavior recurs worldwide.

Similarly, *stupas* and other sacred spaces where relics are housed are common sites where pilgrims trek to obtain spiritual (and by extension practical) benefits. The most famous site in Sri Lanka houses that which is believed to be an actual tooth of the Buddha. Not only do individuals seek to get close to this extraordinarily powerful object, the government of Sri Lanka treats it as a national treasure. An unfortunate, but no less fascinating, consequence of this is that Tamil rebels have repeatedly tried to capture it for political gain. (Tambiah 1992)

Cults of amulets, *stupas*, and other objects are not, as some might contend, a later corruption of true Buddhist practice. Recent archaeological interpretations by Gregory Schopen suggest that the worship of such sacred traces dates back to the time of the early Buddhist *sangha*. (Schopen 1997) Epigraphical inscriptions in caves and other places where Buddhist clergy lived reveal that monks and nuns used to worship Buddhist books and other repositories of power that were associated in some way with the Buddha himself. They believed that such behavior could grant them eternal life or rebirth as a god. Thus, it seems that all Buddhists, including the clergy, are quite religious...just like people everywhere.

Where are the Nuns?

A cognitive approach to Buddhism also allows us to explain one more problem documented by the contemporary study of Buddhism...the absence of officially ordained Theravada nuns. Today, Buddhist monks, modernist and traditional alike, have rejected pleas to ordain nuns into the *sangha* on technical grounds related to the *vinaya*. According to *vinaya* law, both a nun and a monk have to be present for an ordination of a nun to take place. According to tradition, the Buddha himself established this law. Unfortunately, at some point in history, the Theravada nun lineage died out, and so there are no longer any nuns around to perform new ordinations of other nuns. (Bartholomeusz 1994; Kabilsingh 1991; Falk 1989) On these grounds, contemporary monks are refusing to ordain a new lineage of nuns. "The Buddha said so," is their authoritative defense.

There are, as you might imagine, critics of this stance. Aspiring nuns in Thailand, for example, have all but ignored the ruling and proceeded to live like nuns (called *mae jii*) regardless. Feminists, both in the West and in Asia, have spoken out against this policy, which they see as "androcentric" and patriarchal. (e.g. Gross 1993; Kabilsingh 1991) And scholars of Buddhism have questioned the authority of the *vinaya* itself. Yet, the monks refuse to budge. Why?

The most popular reason cited by critics is that either (or both) the tradition of Buddhism itself or its current administrators are sexist. (e.g. Bartholomeusz 1994; Gross 1993; Kabilsingh 1991) However, this will not do. This answer does not, in fact, explain much at all. It merely restates the question, or shifts the problem, such

that the widespread existence of sexism in Buddhist cultures merely becomes the new problem to be explained. A different, and I believe better, explanation can be made by appeals to human cognition.

Where Rituals Start and the Buck Stops

Lawson and McCauley (1990), and McCauley and Lawson (2002), have described in great detail how religious ritual systems tend to be structured. For reasons related to human cognition, religious rituals generally come in two types. Special Agent Rituals (SAR) are those in which SHA, via an ordained ritual officiate, do things to people (e.g. baptisms, or weddings). Special Patient Rituals (SPR) are those in which people do things to SHA (e.g. *puja*, or sacrificial offerings). Each ritual has, in turn, very specific rules that serve as guidelines for their performance. For example, SAR are only performed once because, since the agents of the ritual action are SHA, their effects are "super-permanent." By contrast, SPR are repeated. As such, SAR are often accompanied by what these authors call "high-sensory pageantry," which induce high levels of emotion, making the events very memorable. SPR are rather un-emotional because they are accompanied by relatively (to the system itself) low levels of sensory pageantry. In other words, rituals that involve you doing the action to an SHA are done often and so are boring, at least compared to those rituals in which are performed only once and so are quite exciting. Think of giving an offering to a statue versus getting married. The former is rather mundane

compared to the financial, emotional, psychological, and social investments surrounding the latter.

What does all of this have to do with Buddhist nuns? Well, one of the central SAR of the Buddhist system is the ordination of lay Buddhists into the *sangha*. The performance of an ordination is one of the most important events in the life of a Buddhist, and so these occasions are often celebrated community-wide with highly festive activities such as singing, dancing, feasting, and gift giving. Furthermore, the rules by which ordinations follow are ages old. They date all the way back to the Buddha, who it is believed performed the very first ordination ritual. Lawson and McCauley have termed such first rituals, of any given system, "theoretical rituals" because such rituals only have to exist theoretically for members of the system to follow its rules. This means that whether or not the Buddha actually performed the very first SAR is irrelevant. Because the system postulates that he did, the rules must be followed. In the case of Buddhism, they most certainly are.

The structures of ritual systems thus determine how rituals are to be performed. In general, SAR follow from the rules established by the SHA, who is often the founder of the religion (e.g. Christ, Buddha). As such, SHA not only start rituals, but the buck stops, so to speak, with them as well. Any time questions arise about what can and cannot be done to change a ritual, leaders of religious groups tend to appeal to the guidelines, whether real or imagined, established long ago by the SHA himself or herself in the original theoretical ritual. As such, no matter what conscious claims participants make about the nature of the founder of a religion, in

terms of ritual structure, they serve as SHA. The Buddha, by means of his authority in establishing the very first (theoretical) rituals is a central SHA.

This fact helps to account for the rigid refusal to ordain nuns by contemporary Buddhists. Despite what modernists, reformers, and other "atheistic" Buddhist monks might say, when it comes to ordaining nuns – which would involve breaking the rules of the *vinaya* – they simply won't disobey the guidelines of the law, because the law was established by the Buddha. In this sense, the Buddha clearly, though tacitly, functions as a SHA.

One way that nuns might hope to receive ordination would be to find a Buddhist group that has a different account of history – one in which there are different rules. This is precisely what is happening in Asia. Women have begun to seek ordination from other Buddhist groups (e.g. Mahayana) who follow a different system of guidelines regarding rules for ordination. Mahayana Buddhists still abide by the general rules of all ritual systems, but in their tradition, the ordination of nuns follows different laws. How so? They have, as you might have guessed, different texts and traditions in which the Buddha has established different guidelines for SAR. Thus, many women from South and Southeast Asia have turned to Mahayana lineages in East Asia and in the United States for ordination. And, not surprisingly, reactionaries in the Theravada tradition have responded by saying that such ordinations are "not authentic." (Bartholomeusz 1994)

Keeping the Buddha in Mind

The above examples suggest how our understanding of Buddhism, and of religion by extension, might be clarified by knowing how human cognition works. If humans simply learned religion from their theological traditions, then we would find no gap between the "ought" and the "is" in Buddhism, or any other religion for that matter. Yet, "on the ground" Buddhism is significantly different from "in the canonical texts" Buddhism. Some of the differences are harmless, such as those that involve legendary folk tales about the impressive stature and super-human abilities of the Buddha. Others, however, like the refusal to ordain women, are far more serious.

In addition, what's also important for our purposes is that Buddhism *does not* stand out as an anomaly in the comparative study of religion. The very same issues that affect other religions are found in Buddhism. We find in Buddhism the widespread postulation of SHA, the performance of rituals that adhere to cognitively constrained rules and guidelines, and, for better or worse, contestations and refutations of what follows from the traditions entrenched in the system.

The latter suggests a very important, and enveloping, feature of Buddhist life. Buddhists are human beings and therefore employ inductive reasoning for most of their cognitive tasks. Therefore, Buddhist theology becomes merely one type of knowledge (learned) that influences what people "believe" and what they do. Buddhists also draw on more basic knowledge, such as tacit theories of the world contained in their intuitive ontology, which they have inherited genetically, and by living (developmentally) in this world. Thus, Buddhists are not passive recipients of

Buddhism. They are active transformers of it. In this sense, they are like members of every religion and thus Buddhism is like every other religion...it is constantly changing as thinking people adjust it. And Buddhism is the same as other religions because its members share the same cognitive equipment as members of other religions. This means that Buddhism does not challenge our ability to compare religions. For, as it turns out, all religions, including Buddhism, have deeply structured recurring features. They are all constrained by human cognition.

CHAPTER SIX

THE AMBIGUITY OF AGENCY

In 1981, Avon Books published a small paperback book about religion that sold thousands of copies worldwide. From the volume of its sales, we might say that Harold S. Kushner's *Why Bad Things Happen to Good People* struck a chord. The message of the book was, according to its publisher, "inspirational," as it tried to convince its readers, primarily Christians and Jews, that the belief in God should not be threatened by the reality of evil and suffering in our world. In other words, fear not, because despite the way it looks, God *is* in control.

Kushner's book presented for a general audience an issue that has pre-occupied theologians for centuries, namely the problem of "theodicy." From the Greek *theos* (god) and *dike* (justice), theodicy is the problem of explaining "God's justice" in the world. In short, it is the problem of explaining why if God exists, so does evil and suffering. The theological problem is such:

1. God exists
2. God created the world
3. God is entirely good
4. God is entirely powerful

yet...

5. Evil and suffering exist

Obviously, this is problematic because:

6. If God can't prevent evil, then God must not be entirely powerful, or...

7. If God won't prevent evil, then God must not be entirely good.

Therefore:

8. If God exists, he can't be entirely good and entirely powerful because...

9. Evil and suffering exist

As I said before, this type of problem has preoccupied theologians and philosophers for centuries, and there are sophisticated ways in which theologians and philosophers have tried to solve this dilemma through carefully reasoned arguments. (e.g. Plantinga 1990; Hick 1966) However, this problem is not just a dilemma for intellectuals. It is a problem for just about every religious person, because it concerns the heart of what religion is all about – agency.

The distinctive feature of religion is the presumption that SHA exist. The use of the term "agent" in this definition is critical because what drives religions is the presumption that the SHA have the power to *control* events in the world. Were they not to have this power, as the problem of theodicy suggests, the gods would not merit much reverence. Thus, religion is a powerful force in people's lives because the gods are effective.

Or are they? Upon further inquiry, the gods, at least in the minds of religious people, don't actually seem to be in control of most of the events in the world. When asked, Christians will say, to be "theologically correct," that God knows and controls all. Yet, when asked questions that require them to make inferences about divine agency, researchers find that they view God as a much more limited agent than their ascribed theology suggests, and that the subjects themselves even reveal a strong "inner locus of control" even while claiming to believe in divine sovereignty (Barrett 1999; Lupfer et al. 1992, 1994, 1996; Spilka et al. 1983, 1985;) The latter means that Christians, American Christians at least, believe that human beings (or other "secular" agents) are the causes of most of life's events. Thus, there is a distinct tension in Christianity, probably in all religions, between theological determinism (all is controlled by God) and free will (human fates are controlled by human beings). This tension results from the ambiguity of agency. In our everyday traffic with the world, it is not always clear who is in control of what.

Mental Tricks

We have already established that religious people don't behave the way sociologists and anthropologists have long thought. We have noted that people don't simply learn their religious views from theology, nor do they simply learn their religion from culture. Were the former the case, there would be no variation in religions at all because everyone would simply think the same thoughts (i.e. the established theology). Were the latter entirely true, we would have no way to explain

how variant cultural products get generated in the first place. For someone to come to believe a religious idea, they would have to learn it. To learn it, they would have to hear it from someone else. For someone else to know it, that person would have to have learned it from someone else. And on and on and on...until we get to the person who had the original idea in the first place. If it is possible for people to have original ideas at all, then learning must not be entirely passive. And given the variety of ideas that float around in any given culture, we must conclude that nearly everyone is active in the generation of ideas. Thus, we are back to square one...trying to identify just exactly how religious ideas function in people's lives.

With this very issue in mind, some psychologists have begun to investigate the aspects of human cognition that relate directly to our topic at hand, namely "causal attribution." Obviously, much of religious thought involves attributions about why things happen. As Spilka and his colleagues have noted:

> [S]criptures and theologies have told how the universe was created, why humans occupy a special place in the scheme of things, why seasonal changes and natural disasters occur, why some people triumph while others fail, and why everyone must occasionally suffer and eventually die. (1985, p. 1)

The eminent anthropologist Clifford Geertz has argued similarly that religion constructs for people a "worldview" and an "ethos," which provide people with a view of and for the world. (Geertz 1973) Religious ideas are, according to this view, something like explanations of the world and its workings, which, once learned, instruct people in how to think and act. Religious people, then, ought to believe what their religious traditions teach them – they ought to attribute SHA as the causes of

world events. But, evidence suggests that this is not the case. In fact, it seems to be rarely the case.

Try this. Stand up and look down at your feet. Now lift one foot in the air and stand on the other for two seconds. Now sit back down.

What caused you to do this? Did God? Or, did you do this by your own free will? Most likely, your instinctual answer is that you did it on your own. Upon reflection you might postulate that it was all a part of "God's plan." If so, your cognitive efforts would be in line with how many Christians think. There is, according to psychologist Justin Barrett, two kinds of thinking that religious people employ, namely "on-line" and "off-line" thinking.

On-line thinking involves presumptions, or the kind of rapid judgments that people make without much thought. Off-line thinking is much more reflective, and because it is slowed-down significantly, it allows individuals to postulate, or draw on other kinds of psychological "schema" to fulfill the cognitive task. Again, your on-line answer to what caused you to get up, look at your feet, stand on one foot, and then sit down was most likely "In order to participate in your little game, I chose to do it." Upon reflection, however, were you a religious person you might invoke a different schema altogether...maybe God or the Devil made you do it (though theologians might retort that God doesn't get involved in such "small-scale" matters).

Furthermore, off-line thought requires that you invoke learned (e.g. from theology or culture) schema, whereas on-line thought is much more intuitive and therefore non-cultural. No one ever had to teach you that if you want to do something

like stand up you have to make a choice to do it and then act on that choice. You are hardwired to know that from birth. In this sense, we have a strong sense of what we might call "self-agency." (Premack 1990; Premack and Premack 1995)

Yet, depending on how well you know the established theology of your religion, you might invoke a "theologically correct" idea in your schematic account. You might have learned at some point the doctrinal notion that God controls everything. From this point you might deduce that God controls your actions, for if (a) God controls everything, and (b) you perform an action, then (c) God must have caused your action. This is theologically correct, but few people actually think like that, at least not on-line.

Thus, one of the most important tasks for psychologists is to explain how, when, and in what contexts people attribute events to religious, i.e. SHA, causes. People might do this some of the time, but they clearly don't do so all of the time.

Intuitive Metaphysics

Attribution is a central feature of general cognition. From the time we enter the world, we are forced to represent in our minds what happens, as well who or what causes happenings, in such a way that we can figure out how to take advantage of the way the world works, for example, by making predictions about how things will happen in the future. Let's take a fairly straightforward example. Normal, healthy babies know from very early on that moms and dads cause certain things to happen. Moms and dads (ideally) provide food, change messy diapers, and so forth.

Furthermore, babies know (or learn very, very quickly) that *they* can cause things to happen, like cause moms and dads to give them food or change their messy diapers. One of the best strategies for accomplishing these goals is to cry...loudly.

Much of human cognition involves trying to make sense of the world by differentiating what sorts of things are in the world, how those things behave, and how these things produce events that affect our lives. The central features of the world then, at least for human beings, are agents because they cause most of the events that affect us. Thus, much of our cognitive development involves honing our understanding of agency...and thus "causality."

According to most cognitive scientists, human beings differentiate between at least two, but possibly as many as four domain-specific types of causality in the world. (Sperber, Premack, and Premack 1995) The most basic form of causality is physical. When a rock smashes through a glass window, the cause of the shattering is physical – the force of the rock's momentum and the hardness of the rock's mass exceeded the strength of the glass to withstand the physical force of the moving rock. Explaining the actual physics of this event is quite complicated, but human beings can understand the event quite well (well enough) instinctively. We don't have to learn that hard things crash into other hard things with force.

In addition to physical causality, humans also naturally represent psychological causality. Humans recognize that certain types of objects, in fact very special types of objects, have agency. Agency is predicated on, among other properties, the capacity for self-propelledness, whereas, to move, a rock must be

"launched" by being struck by another moving object. Agents (e.g. animals and humans), on the other hand, can move by their own volition. Agents can do this, our cognitive equipment informs us, because they have "minds."

There is some dispute about whether or not humans also possess domains of biological and social causality, (see Hirschfeld and Gelman 1994) but those debates are less important for our task here. What matters most to us is the understanding that human beings spend much of their time engaging the domain of psychological causality...because much of our survival depends on how well we understand and interact with the agents surrounding us. Among the agents we most commonly encounter are human beings (though the case might have been different in the Upper Paleolithic era). We can safely say, then, that our cognitive equipment predisposes us to detect agency in the world above all else and therefore to decipher the causes of many events in the world.

The causes of most events seem to be self-evident, and people cause most events (at least the ones we notice). Consider the event in which a person flips a switch on the wall and the lights of a room turn on. Consider when someone punches another person in the face, and the next day person B has a "shiner." Consider when a person throws a ball over the backyard fence and into a creek. In all of these cases, the cause is easily inferred.

However, what about in other cases? Consider some very famous court cases of late. A woman sued the McDonald's Corporation because when she spilled coffee on herself, the hot beverage burned her leg. The court found McDonald's responsible

for the injury, and awarded the woman several million dollars in punitive damages. In an another case, a woman killed her husband, but was found not guilty on the grounds that she was not in her right state of mind during the killing...she was, the court ruled, overcome by the hormonal changes of her menstrual cycle. And more recently, many Americans were outraged when the state of Texas decided to execute a convicted murderer who had been found, upon investigation, to be mentally handicapped.

The causes of the events in question during those trials were in some sense fairly clear. In another sense, however, they were not. Was McDonald's liable for the woman's injury...or, as critics argued, was it simply her mistake? Are murderers suffering under mental problems (hormonal changes or retardation), still "responsible" for their actions? Well, yes and no. There are, as lawyers (and sociologists) claim, "extenuating" factors.

The implication here is that the causes of events are not always clear. Nonetheless, people, including judges and juries, tend to want to find someone at fault for events. This very principle underlies most theories of justice, that responsible parties must receive reciprocal punishment, which is most likely because humans are predisposed to find causes everywhere. (Ridley 1997) Simply put, we tend to *feel* that there are causes to events...even if the causes are unknown or unclear.

Cognitive scientists of religion have argued that religion exploits this basic human capacity. Given our predisposition to seek causes, we postulate agents. Thus it is not a coincidence that the central feature of religion is SHA. Stewart Guthrie put forth one of the earliest arguments to this effect. Guthrie has argued that our capacity

to locate agency in the world is actually "hyper-active," which is why humans tend to anthropomorphize and misattribute agency where it is not – but never the opposite. (Guthrie 1993) Later, Pascal Boyer argued that religious agents are merely "tweaked" versions of everyday agents, and Justin Barrett (along with Frank Keil) has recently confirmed this theory with experimental data gathered in the United States and in India. (Boyer 1994, 2001; Barrett 1999; Barrett and Keil 1996). E. Thomas Lawson and Robert N. McCauley even have shown that ritual structures are constrained by a built-in "Action Representation System" (ARS) that is itself dependent upon the cognitive capacity to identify agents performing actions in the world.

Thus, some psychologists have begun to conclude that religious ideas are representations that postulate hidden causes of events. This seems to be especially common when the causes of events are ambiguous, a phenomenon known as the "God in the gaps" hypothesis. (Lupfer, et al. 1996) According to this view, humans infer SHA as causes whenever "regular" causes cannot be identified, and experimental research seems to confirm this hypothesis.

In several experiments involving conservative Christians, psychologists asked subjects to read a vignette describing an event and then to answer questions that required them to infer the causes of the events in the story. The results were quite interesting. For most events, subjects inferred that the human actors in the stories were responsible for most of the events. However, in a few cases, such as those involving unusual events like a financial windfall or acquiring a sudden terminal illness, God, the Devil, luck, and other "supernatural" explanations were offered.

(Lupfer et al. 1992, 1994, 1996; Pargament & Hahn 1986; Spilka et al. 1983, 1985). From this, researchers concluded that religious explanations were far less common, especially for most mundane events, than natural (i.e. psychological, physical) explanations, unless the circumstances themselves are unusual. The results, in turn, confirm our hypothesis that religion doesn't determine people's worldviews. Rather religious ideas only occasionally inform some inferences and deductions we make about why things happen.

If religion doesn't determine people's worldviews, however, then what are we to think about religion at all? Again, though religion doesn't determine people's worldviews, it does not follow from this principle that religion doesn't influence people's worldviews at all. What we find, actually, is that human beings are more likely to believe a religious view if it is in-line with the accords of everyday cognitive concepts and inferences. In other words, while almost any theology can be memorized, those that have what Boyer has called "inferential potential" are going to be invoked for most cognitive tasks.

Inferential Potential

In two very influential books on the cognitive science of religion, Pascal Boyer has argued for a "naturalness" of religion thesis that turns on the notion of "counter-intuitiveness." As we noted in Chapter Three, Boyer's view is that religious ideas are most likely to be transmittable (they get successfully passed on from one person to another, from one generation to another, and even from one group or culture

to another) when they achieve a "cognitive optimum." Ideas that achieve a cognitive optimum are those that are "nonnatural but learnable." (Boyer 1994)

This theory is based on research in cognitive psychology about what sorts of ideas come naturally to human minds. Natural in this sense is related to "innate" only in so far as the various kinds of tacit concepts built-in to our intuitive ontology (see above) are not learned from culture. Rather, an intuitive ontology, and its related capacities, is required to learn "cultural" ideas. Humans know tacitly, for example, that natural objects, artifacts, plants, animals, and humans populate the world. Furthermore, humans know, among many things, such facts as objects cannot move on their own, living things (plants, animals, humans) need food and/or water to live, and humans (and possibly higher-order animals) have "minds." (Boyer 1994, 2001)

Some ideas that humans have, however, are acquired (though not independently of cognition). For example, children in the United States learn that big, gray, slow-moving, peanut-eating animals with long trunks and tails are called "elephants." In Thailand, children learn that these animals are called "*chaang*." Furthermore, children (in both cultures) learn ideas that are not in-line with ordinary cognition. Such ideas are "counter-intuitive." For example, in the modern West, school children learn that the sun does not move around the Earth, despite the "fact" that we see it do just that every single day of our lives. In this sense, many people spend their adult lives holding quite contradictory ideas simultaneously...that the sun is stationary and yet it "rises" in the East and "sets" in the West each day and night.

According to Boyer, religious ideas function in the same way. They are counterintuitive, and so they have to be learned.

Now, consider the properties of a religious agent. In Christianity, God is postulated as (among other traits) a grand being who has perfect knowledge and vision, doesn't need food or water to survive, and is physically and biologically immortal (in this sense...He's quite like the Buddha). Notice that each of these traits violates our intuitive expectations about what agents are like. Normal agents postulated naturally have certain physical, biological, and psychological properties. They are limited in space, don't have perfect knowledge or perfect vision (which is why we can trick them!), need food and water to live, and will eventually die (at least a physical/biological death – see Chapter Four). The ideas that Christians have about God are violations of those intuitive expectations. They are counterintuitive and so must be, but can be, learned.

Thus, as humans develop and mature, they learn culturally postulated ideas, including religious ideas, about the world and its workings. Many of these ideas might not resonate with our intuitive expectations. Yet, we learn them perfectly well. But, once learned, do we forever alter our view of how things work? Not necessarily.

Again, consider the case of the setting sun. Nearly all Americans know that the sun doesn't move around the Earth. Yet, nearly all treat it as if it does. Only in situations that require them to recall learned ideas about planetary motion will they invoke their astronomical wisdom. Likewise, religious people do not necessarily alter

their way of viewing the world once they've internalized a given theology. In some contexts, they will invoke such thoughts. In others, they won't.

Given this process, we ought not be surprised that most Americans today are, theologically speaking, instinctually Arminianist (they believe in free-will) even though the most dominant form of Christian theology from the outset of the founding of this country was Calvinist (belief in deterministic divine sovereignty). One of the most interesting historical developments in American Christianity has been the failure of the Puritans to sustain their Calvinistic theology among the masses because it is not only an instructive example of how human cognition constrains cultural possibilities, but also of how a deep grasp of cognition can help scholars make sense of why historical movements occur as they do. Let's explore these developments of early American Christianity now.

Christianity in Colonial America

Though the various tribal nations that are now collectively known as the "Native Americans" populated North America for thousands of years before the arrival of the Europeans in the late 15th and early 16th centuries, most scholars in the field date the arrival of the Puritans as the beginning of the establishment of "American religion" on the continent. (Williams 2001; Ahlstrohm 1972) The Puritans were "pilgrims" who had left England in search of land on which they could build their "New Jerusalem." They were members of the Church of England, officially, but they had also been deeply influenced by the predestinationist theology of John

Calvin. John Calvin constructed his theology based on the logical conclusion of the doctrine of the sovereignty of God. If, the logic went, God is the creator of the world, is active in the world, is all-knowing, and is all-powerful, then the fate of the world must be already determined according to His willed plan. Therefore, the salvation of each human being, as well as the fate of Christian societies, has already been worked out in advance by God himself. To say the least, Puritan theology preached a radical "external locus of control."

Members of the Puritan society were inundated with this theology. Once they established settlements in the New World (i.e. the English colonies of North America), the church served as the central aspect of Puritan life. Church services were marked by lengthy sermons (some lasting all day) that were meticulously prepared by trained clergy. In addition, socio-institutional decisions were always made according to the dictates of Puritan doctrine, and legal-ethical judgments reflected their deep belief in God's awesome power.

Yet, if cognitive theories of religion are correct, we could predict that orthodox Calvinism would have little staying power...because it is too far removed from ordinary cognition, which relies heavily on human agency, to have much on-line inferential potential. In other words, a religious idea that removed agency entirely from the human world could be learned, but would most likely not be invoked in on-line thinking because when humans are required to infer causes, they resort to default (i.e. natural) inferences about psychological agency. Thus, Puritan doctrine would have little chance of successful transmission in the long run. Is this the case?

Evidence confirms this prediction on two accounts. First, much data collected by historians suggests that Puritans were not strict theological determinists. They in fact seemed to be obsessed with the effects of other sorts of SHA and so, we might say, were quite "superstitious." The Puritans were not only obsessive "Jeremidians," that is they saw – *a la* the Biblical character Jeremiah – the hands of SHA at work in all events of misfortune and suffering. They also followed the *Farmer's Almanac*, astrology, and other means of divining events, and they greatly feared anything that seemed to reveal the workings of witches and other "demonic" agents (few events of American religious history are as infamous as the 17th century witch trials in Salem, Massachusetts). And in further display of theological incorrectness, Puritan society was replete with rituals and other activities, like fasts, confessions, and natural healings that were felt to be able to engender favorable outcomes in the world. (Hall 1989; Karlsen 1987; Stout 1986)

In addition to the "popular" dimensions of Puritan religion, a second bit of evidence regarding the "instability" of determinism thesis comes from the demise of Calvinism as a result of the "First Great Awakening" in the 1730s and 40s. The Great Awakenings, of which there have been at least three in American history, were prolonged (5-10 years) periods when "revivals" of intense on-line religion swept through the colonial countryside. (Ward 1992; Butler 1990; McLoughlin 1978; Bushman 1970) The original revivals, which constituted the First Great Awakening, typically took place at gatherings of various sorts (e.g. street-corner crowds, open churches, tent revivals, camp meetings, etc.) in which charismatic traveling itinerant

preachers, like "circuit riders," like Jonathan Edwards, James Davenport, George Whitefield and the like, brought thousands of men and women to their "First Blessings," or highly emotional "born-again" conversion experiences in which folks repented for their sins, asked for forgiveness from the Lord, and overwhelmingly...as the saying went..."got religion." The catalyst for these experiences was the fiery extemporaneous preaching delivered by these men who felt "called by the Spirit" to preach the word. Their sermons willingly sacrificed the systematic theological tradition of Calvinism, which we might call a "religion of the head," for a theologically convoluted evangelical "religion of the heart" in order to bring people to God. Their dramatic orations were supplemented with arousing activities like hymn-singing, spectacular personal testimonials, and in some cases full-immersion adult baptisms...all of which had as the primary goal generating emotionally charged religious experiences among the audience. (Ward 1992; Butler 1990; Bushman 1989)

One of the most striking features of the First Great Awakening, at least for our purposes, is that the Calvinistic theological message of the Puritans began to give way to Arminianism. Arminianism was a Protestant theology that had rivaled Calvinism in Europe, but had been rejected in the New World by the Puritans. In contrast to the rigid predestination of Calvinism, Arminianists preached a "cooperative theology" in which salvation was achieved by the dual efforts of God and humans. An oft-used Arminanist image was that humans needed to "reach up" and grab God's outreached graceful hand. Arminianism thus created a space for free will and thus, however

limited, for human agency. The basic tenets of Arminianism would eventually become the hallmark of American Protestantism altogether. (Williams 2001)

Cognition and Free Will

How do cognitive theories illuminate this series of events? First, Stewart Guthrie's theory offers the beginnings of an explanation for why the Puritans were awestruck by the power of SHA that they believed surrounded them. As noted above, the Puritans were Jeremidians in so far as they believed that the events of the world, especially misbehavior and misfortune, were proof that humans were, in the famous words of Jonathan Edwards, "sinners in the hands of an angry God." (Edwards 1957) Boyer extends Guthrie's point by explaining why such an idea would have been attractive to the Puritans in the first place, namely because such an idea represents God as an agent with perfect knowledge and awesome power (though materially invisible).

Most importantly, however, Barrett's theory of theological correctness allows us to distinguish the on-line popular ideas and actions of the Puritans with the off-line theological ideas...and to keep in mind that the humans are capable of holding both. This latter theory explains why, if the Calvinistic Puritans "believed in" divine sovereignty, they also "believed in" witchcraft, astrology, religious conversion, and the causal relationship between self-effort and worldly success (noted famously by Max Weber [Weber 1976] as the "Protestant Work Ethic"). In short, Barrett's theory

that humans hold theologically correct ideas quite naturally provides the most plausible explanation for why the Puritans were superstitious.

The off-line/on-line distinction further suggests that the sorts of religious representations that are closest to on-line representations have the greatest likelihood of transmission. In other words, minimally counterintuitive ideas are not only easy to learn, but they are easier to recall than maximally counterintuitive ideas, which are cognitively burdensome. This certainly seems to be the case with the shift away from Calvinism and toward Arminianism in early American Protestantism. Calvinism is an inherently unstable idea because it precludes the role of human agency. Arminianism, in contrast, maintains the same inferential potential about superhuman agency as Calvinism, but supplements that with representations that include the important role of human agency (i.e. free will) in world affairs. Thus, it is more likely that Christians will infer ideas that are in-line with Arminianist theology than with Calvinist. And, in situations where such ideas are preached, we could predict that they would be enthusiastically received. The revival meetings of the Great Awakenings seem to confirm this. Not only did revival meetings attract hundreds, sometimes thousands, of people, the participants themselves, in the midst of the sermons, often plunged into neuromuscular ecstatic "exercises" that included laughing, dancing, falling down, jerking, and even barking like a rabid dog. (Sims 1996; Brown 1992) In short, the success of the Great Awakening provides us with a wonderful window into the workings of the on-line religious mind.

Thoughts and Actions

But what do people *do*, once they "have" religion? It seems nearly incontrovertible that religious ideas inform religious actions, but how so is up for debate. Cognitive scientists do seem to be clear on one point, however, that religious representations are triggered in human mind-brains. The question at stake is whether or not humans have to be motivated to have a religious experience and to perform religious actions.

The sermons, songs, and shouts of the Awakening revivals clearly motivated certain types of religious experiences. The environments of revival meetings were occasions of what McCauley and Lawson (and Lawson and McCauley), and Harvey Whitehouse, have termed "high sensory pageantry." (McCauley and Lawson 2002; Lawson and McCauley 1990; Whitehouse 1995, 2000) According to these scholars, high sensory pageantry in ritual performance, which Whitehouse argues tends to occur in "imagistic" modes of religiosity, aids memory, salience, and transmission of representations by evoking strong emotional responses. Such experiences are commonly induced through physical stimulation like singing, dancing, shouting, sleep-deprivation, and numerous other arousing behaviors. However, it would also seem to be the case that intense emotionality can be induced via communication, because the sorts of physiological changes that underwrite extraordinary experiences can be stimulated verbally (e.g. intimidation, manipulation, flattery, reinforcement). Representations communicated during the Great Awakening revival meetings did just that. They not only achieved a cognitive optimum, but also evoked strong emotional

responses that induced intense experiences. In the revival meetings, the physical activity (singing, rituals, etc.) combined with the inter-subjectively communicated representations, from preacher to audience, resulted in many emotionally charged conversion experiences.

What follows from all of this is that effective preachers, or those whose sermons engender a charged response, must exploit the basic processes of human cognition. Examination of sermons reveals that this is precisely what often happens. A typical strategy employed by Protestant preachers during, and after, the Great Awakening, is what we might call, to borrow a metaphor from sailing, conceptual "tacking." In sailing, whenever a captain seeks to sail into the wind (a seemingly impossible task), the boat is maneuvered strategically at 45-degree angles to take advantage of the wind's direction and power. Preachers employ a similar strategy by "tacking" back and forth, providing explanations of ordinary events in terms of supernatural causes. Revivalist preachers engaged their audience in a complex cognitive "dialectic," if you will, that involved (a) diagnostic reasoning, in which general causes are inferred "backwards" from particular events, and (b) causal reasoning, in which future events are inferred probabilistically from the represented characteristics of the postulated causative agent. (Kahneman, Slovic, and Tversky 1982) And religious conceptual tacking not only involves the explanation of mundane events in terms of supernatural causes (i.e. superhuman agents), it also involves inferring about potential events from what is presumed about the causer. Misfortunes are caused by the Devil. Illnesses result from being possessed. Financial

windfalls are a gift from God. And if you don't pray and obey divine mandates, your future will be dire. Such inductive reasoning is quite natural, and because religious representations are salient, we should not be surprised that savvy preachers, consciously or unconsciously, tapped into this process. It's very effective.

Ritual Predictions

The final dimension of a robust cognitive account of the dynamics of American Protestantism should involve considerations of the psychological constraints on ritual actions, such as those that Lawson and McCauley (1990) (and McCauley and Lawson 2002) have described. According to their ritual form hypothesis, the actions performed in any given ritual system conform to cognitive constraints about representations of action. Thus, religious systems must balance the Special Agent Rituals (recall: those rituals in which humans are recipients of actions from the gods [often via priests]) and Special Patient Rituals (recall: those in which gods are the recipients of actions from humans). This theory allows us to predict that if a religious ritual system becomes unbalanced, then significant changes related to the structural form of those rituals will result. This seems to be exactly what happened in early American Protestantism.

The central rituals of Protestantism have always been communion and baptism. In Puritan communities, however, the latter took on an additional, and very important, role that we might call a "civic regulator." As we have noted, the Puritans ascribed to predestination, or the doctrine of the "limited atonement" and its

corresponding notion of "visible saints." This meant that only those whom God had pre-elected to be saved were fit to be baptized. After all, what would be the use in baptizing others?

However, the non-elect (non-saints) were also required to attend church, participate in societal activities, and so forth for the purposes of engendering the Kingdom of God on Earth (which required keeping the Devil in check). As it turned out, only about one in five New Englanders were considered to be members of the elect. (Williams 2001) This principle of baptizing only the elect, and thus providing full membership/citizenship, became a problem in the successive generations of Puritan families whose children and grandchildren didn't follow the predicted pattern of experiencing a conversion event. To address this, the Puritan leaders created what became known as the "Half-Way Covenant," which allowed individuals with ambiguous statuses to be baptized "half-way" in hopes that some day they would come to realize, fully, their elect (or non-elect, as the case may be) statuses.

The consequence of this decision was that baptism lost its importance. Its role in the church was "deflated," to use the language of McCauley and Lawson, and became less important than the taking of the Eucharist in the performance of communion. As McCauley and Lawson's theory would predict, during the Great Awakenings many Congregationalists (i.e. Puritans) and Presbyterians converted to the Baptist denomination whose central feature was "believer-baptism," a ritual with high sensory pageantry and correspondingly high levels of emotionality. This

suggests that ritual form played a role in the dynamics of the Great Awakenings. (McCloughlin 1971; Payne 1998)

The Big Picture

Rituals and other religious activities, as noted before, seem to follow from religious concepts. Yet, the religious concepts do not determine, per se, what follows. Rather, it appears that basic human cognition drives thoughts and actions at both the individual and the cultural levels. In the case of early American Protestantism, the Calvinism of the Puritans was short lived because Calvinist theology, while learnable, is too counterintuitive to be maintained by anyone performing on-line reasoning tasks. Thus, we should not be surprised to find, as historians continue to do, that the Puritans themselves were prone to theological incorrectness. Nor should we be surprised that Arminianism came to be the dominant theology of the American religious "psyche," if we could make such a claim.

The latter point is quite illuminating because it suggests that religious ideas with maximum inferential potential can even spread across diverse populations, such as in the United States where people have diverse theological commitments. For example, such ideas as "cooperative theology" (belief in both divine sovereignty and free will), are very attractive to human beings because they exploit very basic "natural" cognitive processes.

Thus, we might predict that religious ideas which postulate the existence of SHA will always have an internal conceptual tension between the powers of the gods

and the powers of people that will play out in various ways in the daily lives of group members. We find this to be true in America today. There are only a few remaining orthodox Calvinists in the United States today, and they reveal an inner locus of control. (see above) Yet conservative evangelicals today do not deny the absolute sovereignty of God. Recently, after the attacks of September 11, Jerry Falwell was quoted as saying – in a very Jeremidian manner – that the attacks were caused by the moral lapse of American society. His "evidence" was the widespread existence of "sins" like homosexuality, feminism, and the powerful lobby of the A.C.L.U.

The tension between divine sovereignty and free will, which has preoccupied the minds of many for centuries, is actually a quite natural, arguably inevitable, tension that results from the ways in which the mind works. Since religious reasoning is constrained by human cognition, and human cognition is essentially the same across cultures, we could further predict that this tension recurs across cultures. Preliminary ethnographic and experimental evidence confirms this. (Barrett 1996; Boyer 2001). Regardless of theology, human beings everywhere seem to be enthralled in the grips of the ambiguity of agency. Buddhists waver on whether they can achieve nirvana on their own, with the help of SHA, or transcend the net of *karma* at all. Muslims simultaneously say that Allah wills everything that happens in the world, but struggle to bring about his divine will, however imagined, in the world. (e.g. *jihad*) And, Christians, like religious people everywhere, labor to decipher how best to live the good life – a struggle that results in the oscillation between "doing" God's will and "giving in" to it. Such is the way of religious reasoning.

CHAPTER SEVEN

LIKELIHOODS AND LUCK

Armando Benitez has been betting on horses for over 40 years. According to his own testimony, he has tried every trick in the book to win. The best chances for winning, however, seem to contradict everything you might imagine about how anyone should bet. Instead of using "scientific" methods like basing bets on a horse's past performances, on insider knowledge, on track conditions, etc., he simply takes a complete novice to the track and asks that person to choose a horse. In a surprisingly high number of cases, the novice picks correctly. What is the explanation? "Beginner's luck" seems to work at the track. (Bechtel and Stains 1997)

Setting aside momentarily the question of whether or not the novice's picks really are lucky, what is interesting about the story is that it doesn't sound completely absurd. I would be willing to bet (pun intended) that nearly every person has experienced some unlikely event that can only be explained as resulting from luck. How else can we explain individuals who win the lottery or win thousands of dollars on a slot machine in a casino, or randomly find a $100 bill lying in the street? How can we explain the "good" fortune of those people who stayed home from work in the World Trade Center on September 11, or those who for some reason or another missed their scheduled flights on the hijacked planes that same fateful morning? How

can we explain even minor incidents like getting caught in traffic while late for an important meeting, or having your computer crash just before your dissertation is due? All of these events, whatever the "ultimate" or "real" cause, could be attributed to luck.

Here are a few examples of widespread luck beliefs. It is good luck to find your initials in a spider web. If your birth date, when added together, can be divided by seven (e.g. 02/09/73 → 2 + 9 + 73 = 84), you'll be lucky all of your life. Telling an entertainer to "break a leg" sends them good luck. Shooting stars are a sign of good luck. You'll be lucky if you accidentally wear clothing on the wrong side-out all day long; if a strange dog follows you; if a swallow builds a nest on your house; if a frog enters your home; if you see three butterflies together, or if you throw salt over your shoulder. In contrast, it is bad luck to tell an entertainer "good luck." The number thirteen is unlucky, which is why you'd be hard pressed to find a hotel that has a thirteenth floor. It is bad luck to walk under a ladder; to cross the path of a black cat; to not wear your lucky charm to an exam, or not perform the usual ritual in preparation for a big game. (Bechtel and Stains 1997; Shermer 1997; Vyse 1997; Singer and Singer 1995; Radford and Radford 1969; Seligman 1968)

The list of "luck beliefs" is extensive. Bechtel and Stains' 1997 book is 374 pages long and averages about one luck belief per page. Radford and Radford's *Encyclopedia of Superstitions* is 264 pages long. What's more, both books are based mostly on luck beliefs found in Western cultures alone, so don't include the thousands of luck-beliefs we could find throughout the rest of the world, even though

the belief in luck is not a "Western" invention, as some cultural relativists might like to assert. Neither is it a "modern" (nor a "pre-modern," if you prefer) phenomenon.

We find examples of the belief in luck everywhere, and all throughout history. In the First century A.D., Ovid is said to have proclaimed, "Luck affects everything. Let your hook always be cast in the stream. When you least expect it, there will be fish." The Christian patriarch St. Augustine said, "The force of chance is diffused throughout the whole order of things." In Japan, *daruma* dolls, which are stylized replicas of a sixth-century Buddhist monk, are widely possessed as good-luck charms. Chinese calendars are created around "lucky" and "unlucky" days and years. So is the zodiac. In ancient Egypt, the hieroglyphic sign for the word "nefer" was used to represent goodness, beauty, happiness, youth, and good luck. (Bechtel and Stains1997)

Furthermore, beliefs in luck are related to actions designed to improve one's luck. And here, in the realm of luck rituals (if we can call them such), the list truly seems endless. Consider just these examples. Throughout the Asian world, Buddhists purchase amulets to wear around their necks, to hang in their cars, homes, and businesses in hopes of avoiding bad luck and attracting good luck. (see, for example, Swearer 1995; Earhart 1993, Spiro 1970; Tambiah 1984) In the Western world, people do the same. Catholic lay disciples of St. Jude in the United States wear amulets to protect them from misfortune and to help them deal with "hopeless" causes. (Orsi 1996) In Africa, both the Zulu and the Yoruba have religious specialists who strive, through ritual efforts, to ward off misfortune and mishap for the group.

(Lawson 1984) Professional athletes perform a host of seemingly arbitrary actions designed to bring about good luck. Michael Jordan wore his college basketball shorts under his professional uniform. Hank Aaron wore the same shower shoes for his entire career. Jimmy Connors tucked a note from his grandma in his socks during matches. Wade Boggs ate chicken before every baseball game he played, as did Jackie Joyner-Kersee before track meets. (Bechtel and Stains 1997; Vyse 1997)

Again, the list of luck beliefs and practices is seemingly endless. Any cursory glance around the world reveals the widespread existence of such beliefs. Yet, despite this fact, little scholarly attention has been paid to it. For some reason, few people investigate this phenomenon, and most dismiss is it as little more than superstition. However, the widespread belief in luck demands our attention not just because it is ubiquitous, but also because it reveals the complex workings of the human mind. It should be uncontroversial by now that people must use the brains they have got to think and act, including thinking and acting religiously, and the brains they have work in specific ways. Given the ubiquitous belief in luck, we can safely conclude that one way in which our brains operate is to reason inductively, especially about causality, since believing in luck involves inductive inferences about the "causes" (however ambiguous) of unlikely but personally important events. In this sense, the belief in luck differs from religious belief only by degree, not essence, because both involve the presumption of agency at work in the world. The only difference, and it is a relatively minor difference, is that the agents of religious traditions are less

ambiguously represented than the "agents" of luck. This is why, in some cases, luck gets personified. (e.g. "lukshmi," "lady luck," "fortuna")

Analyzing Luck

The concept of luck is actually quite complex and thus should not be dismissed as superstition or sloppy thinking. In a basic sense, luck is synonymous with chance. When individuals presume the workings of luck in their lives, though, they often "spin" the effects of luck to be positive or negative, as in one having good luck or bad luck. Furthermore, although the presumption of luck (or chance) implies that events are beyond human control, much of the preoccupation with luck involves performing actions that are hoped to influence (namely improve) luck. The latter suggests just the opposite of the luck...that its forces are not beyond our control. Now, mix in this variable – luck completely contradicts the theologies of Christianity and Buddhism (and most likely of all religions, though we'll limit our study here to these two traditions). Obviously, something quite strange is going on.

Theologies are constructed deductively. Theologians begin with the foundational premises of the faith, such as God exists, God is good, God is powerful, etc., and then deduce from those premises conclusions to questions that concern them. According to the conventional view of religion (not to mention the view assumed by Geertzian cultural scholars of religion – see Chapter Two), the followers of a religion supposedly learn the culturally-specific/domain-general theological doctrines of a

religion and then, once learned, the theology determines how one thinks (or ought to think). However, the widespread belief in luck problematizes this hypothesis.

Since religion involves interacting with postulated (or presumed) agents, and agents control the events of the world, everything, it would seem deductively, is controlled. Hence, as we commonly hear people say, everything happens "for a reason." Thus, luck should be what philosophers call a *non sequitur*. Luck beliefs should not follow from accepted theological beliefs, regardless of tradition. Yet, as with what we saw in Chapter Five, this is not the case. Thus, we should not be surprised, given what we know about the ambiguity of agency, that individuals in South Asia and in America don't necessarily ascribe complete control to the postulated agents of Buddhism and Christianity. Let's consider Buddhist theology and Christian theology now, so that we might understand why not.

Theology

Buddhist theology, like Christian theology, is quite complex (fortunately for our purposes, we can limit our attention to Buddhist views about causality, since luck beliefs turn on causal reasoning). The central feature of Buddhist theology regarding causality is the doctrine of *karma*. Karma means "action and the appropriate result of action"; it is a basic law of cause and effect that regulates the workings of the world, i.e. one reaps what one sows. (Humphreys 1984) Thus, there is no such thing as theodicy in Buddhism because there is no "innocent" suffering – all events that one experiences in life are the result of one's actions.

In Buddhist terms, any event that a person experiences is the consequence of previous action(s). If a person seems to have good luck, it is because they have accumulated great *karmic* "merit" (Sanskrit: *punna karma*), for example by thinking good thoughts and doing good deeds. In contrast, those people who have bad luck are believed to be reaping the effects of *papa karma*, or demerit. This notion is captured by the popular Thai Buddhist saying, *thaam dii, dai dii; thaam chua, dai chua* ("Do good, get good; Do evil, get evil").

It takes little cognitive effort to infer, on-line, the Buddhist conception of *karma* (note also that the "golden rule" recurs across traditions). However, Buddhist theology, upon further reflection, gets much more complicated. Consider the fact that because humans live in groups, all actions have effects on other people. This creates a complex "web" of *karmic* interaction in which the actions of each person affect, potentially, many different people. Thus, how do we know who or what has caused what? How do we locate, in Buddhist terms, the agent that caused the event, if all agents' actions are collectively inter-connected? Furthermore, what about the complex notion that actions follow from a person's intentions, while a person's intentions result from previous actions? In other words, if all events are caused by previous actions, one's own or of others, where is the actual (i.e. "first") cause? Buddhist theology, as it turns out, seems to be somewhat incoherent because it rejects causality altogether while simultaneously recognizing that events are the outcomes of actions. (Kalupahana 1975) It is no wonder that on-line, Buddhists simplify their causal inferences by appeals, however theologically incorrect, to luck.

What about Christian theology? Essentially, the same goes. There is a popular notion in Christian cultures, one that is quite similar to the notion of *karma*, namely "what goes around comes around." As is the case with Buddhism, however, Christian theology is not so simple. Consider again the issue that was raised in Chapter 5 concerning divine sovereignty. Though Christianity, not to mention Judaism and Islam, turns on the notion of divine agents, most Christians do not imagine that God controls every event in the world. In illuminating studies by Lupfer et al. and Spilka et al., luck was attributed as the cause of events, both non-life-altering and life-altering (e.g. financial windfall and terminal illness) in some cases more so than God...even by very conservative Christians. (Lupfer et al. 1992, 1994, 1996; Spilka et al. 1983, 1985) So why don't people believe that God is in control, even when they "should?" Again, the answer is that this theological postulation is cognitively burdensome. Luck attributions are much more efficient.

Cognitive Efficiency

Why are luck attributions so much more efficient than theologically correct postulations? One answer already provided is that theologies are produced deductively, but the mind tends to think inductively. The reason for this is three-fold. First, inductive reasoning is much faster than deductive reasoning. Second, deductive reasoning is too restrictive. Third, inductive reasoning does more work than deductive reasoning.

As we have noted, deductive reasoning involves deducing a conclusion from a set of premises according to a number of rules of inference. The rules of inference constrain the ways in which conclusions can result; they are rules of thought. A typical example of a deductive argument is a "syllogism," such as the following:

All jocks are dumb.

Jason Slone is a jock.

Therefore, Jason Slone is dumb.

What's important about deductive arguments is that the truth of the conclusion is guaranteed if the premises are true and the logical deduction follows the established rules of inference. In other words, if the premise(s) is true, and the rules of inference are followed properly, then the conclusion will be true.

There are, unfortunately, significant problems with deductive thought that prevent this method of analysis from being widely used (or even preferred). For one, the need for the premise to be true weakens the possibilities of the conclusion being true. What if not all jocks are dumb? Might there be one smart jock somewhere in the world? If so, then the conclusion of this syllogism is false (even though by the rules of inference it is valid). (Solomon 1990)

Furthermore, consider how long it has taken us to deduce a conclusion that informs us about the mental prowess of Jason Slone. We not only had to consciously recall and invoke prior knowledge, in this case about jocks being dumb, we also had to deduce conclusions "downward" via successive stages of thought. Imagine if we had to do this with every idea we ever generated. We would spend most of our time

processing data like mathematical calculators – although performing functions at a much, much slower rate.

Second, deductive reasoning is quite restrictive. What if, after all that time-consuming effort it takes to deduce conclusions from premises, the premises are shown to be wrong? To construct a different answer would require a lengthy trek through another deductive process, and there would be no guarantee that that answer would be correct either. Here's an example.

All women are good cooks.

My wife is a woman.

Therefore, my wife is a good cook.

What if it turns out that all women are not good cooks? We might try this.

All women from Minnesota are good cooks.

My wife is a woman from Minnesota.

My wife is a good cook.

What if my wife is not a good cook? We might try this.

All women from Minnesota, except my wife, are good cooks.

But, now we have an incoherent premise. If but one woman from Minnesota is not a good cook, then the premise cannot include the pretense "all." And if a premise cannot be inclusive, it turns out to be very weak indeed.

The final problem is related to the last statement. Deductive reasoning involves starting from general, ideally universal, premises and deducing from those premises a conclusion to a specific problem. If the problem is, say, that my wife is a

bad cook, I would have a seemingly infinite number of premises from which to begin my deductive line of thought. "All married women are bad cooks." "All adults that were adopted as children are bad cooks." "All college graduates are bad cooks." "All fans of reality television shows are bad cooks."

As noted before, most cognitive tasks require us to make rapid judgments about what's going on in our world, so that we might react appropriately to our given situations. Imagine if we had to use theologically constrained deductive reasoning. Our thinking might go something like this. "God is the creator of all life. Humans are part of life. My wife is a human. All humans must eat. My wife must eat. All humans eat cooked food. My wife eats cooked food. All cooked food must be prepared by other humans...." You can see where this is going. This kind of thinking takes up too much time for our everyday traffic with the world, it is too restrictive, and it only deals with the event covered by the logical conclusion. Simply put, most people don't think this way.

On-line, inductive thought is much more efficient (though maybe not "better"). Inductive thoughts are lightning-fast, and they cover a lot of territory in a very short amount of time. We then remember what's important for later use, and we can make predictions about what the future holds in store so that we're ready to act when necessary. This cognitive capacity is quite effective for survival. (Barkow, Cosmides, & Tooby 1992)

Cognitive tasks are often like little (or big) problems to be solved with explanations. If the problem to solve is explaining why my wife is a bad cook (she's

not, it's just a hypothetical case), then I can do so very quickly by inferring an answer that, if true, would explain the puzzle. In this way, inductive reasoning starts with a conclusion and thus skips all the steps required by deductive logic. For example, maybe my wife is a bad cook because she never learned how to do it properly. This inductive answer to the problem is plausible and if true solves the problem. If it's not true, we can quickly discard the hypothesis and generate a new one. If she had in fact learned how to cook well, maybe she can't cook well because she is under a lot of stress at work and so is distracted at home. Or, maybe she is trying to make me loose weight and so is purposely cooking poorly tasting food. Or, maybe I have bought cheap, bad-tasting groceries for her to cook with. This list, too, is infinite in its possibilities, but more easily perused for answers (no steps required).

What is striking about this way of thinking is that so much of what is involved in generating inductive ideas is only *tacitly* known. Inductive reasoning takes for granted a whole host of assumptions that are necessary for the inductive generalization to be constructed at all. Just think of what is assumed in the above inferences. In terms of ontology, we know, without having to consciously think about it, that my wife is a human and thus a psychological agent. Moreover, that assumption requires us to infer that she intends to produce a cooked meal that tastes good (or bad, as the case may be). Furthermore, we assume that my wife is the primary cause of the food tasting badly. Then, we search for causes of that cause. *Intuitively*, we assume not only that there is a cause, but also that we can detect it (wherever "it" may be).

This type of causal reasoning is central to our basic cognition. Humans need to know why things happen, not just to figure out how to solve the problem of having to eat bad food, but to survive in general. And the belief in luck, and the susceptibility to religious ideas, are the by-product of this cognitive capacity to infer causes of events in the world.

Events

Happenings simply occur; events are caused. As we have already noted, causality is a central feature of cognition, and as such has become an important area of research in the past few decades. What scientists have discovered is that causality is inferred from domain specific tacit knowledge about what kinds of things are in the world and how those things work. An important piece of the puzzle, though, is that human conceptualization of causality changes over time as our cognitive capacities develop.

Early in life, human beings are deterministic in their thinking. Young children seem to have very clear ideas about how things in the world ought to work. This is revealed by studies in which infants and young children are shown events things happen that aren't supposed to. For example, children are quite surprised to see a ball go through a wall. (see Spelke, Phillips, & Woodward 1995) Given their intuitive physics, they know that this kind of event isn't supposed to happen.

Sometime around the age of six or seven, however, children begin to switch from a deterministic view of the world to a probabilistic one. For some reason having

to do with a complex interaction of natural capacities and cultural experiences, children begin to infer outcomes of events from based on a tacit knowledge of probability (though grounded in intuitive ontology). It is at this age, according to Piaget and Inhelder, that children begin to develop, and hone, an understanding of chance. At this stage of development, children begin to think that event-outcomes are not a matter of either-or, but more-or-less likely to occur. Prior to this stage of development, children believe that every event outcome has a cause, even if the cause is hidden. Central to our ability to conceptualize probability is the capacity to represent the frequency of occurrences, and frequency concepts reveal a sense of expectation about how the world is generally supposed to work. The primary difference between children under and over the age of six is that in the former group, event-outcomes *must* happen in a certain way, whereas in the latter, children seem to think that event outcomes will most likely, but not necessarily, happen in a certain way. (Piaget and Inhelder 1976)

Piaget and Inhelder's research suggests that humans regularly perform a kind of "informal calculus of probability." (Vyse 1997, p. 95) We are constantly constructing probabilistic theories about why things happen as well as what kinds of things will happen. In this sense, probabilistic inferences both explain and predict. Now, were the world not to operate in recognizable patterns (either real or imagined), we would have great difficulty in making sense of why things happen, and in turn great difficulty in making and acting on predictions about how things are reasonably

going to happen. Yet, intuitive probability is not exactly like scientific probability, and so we ought to consider the difference.

Probability

Scientific probability turns on fairly precise mathematical formulae that can be tested for confirmation or disconfirmation. The goal is not perfect prediction *per se*, but rather to arrive at the odds, or probability, that a particular outcome will occur. One of the most famous experiments in statistics that reveals the phenomena of randomness and variability is the flipping of coins. In this experiment, researchers flip one or two fair, two-sided coins. There are four possible outcomes when two coins are flipped: HH (Heads/Heads), TT (Tails/Tails), HT (Heads/Tails), and TH (Tails/Heads). Since HH is only one of four possible outcomes, the probability that a flip of the coins will result in HH is 1:4 or 25%. This also goes for TT. However, since there are two variations of the same result for a non-same-side up, either TH or HT produces the same result, so that the possible outcomes are two of four. Therefore, the probability that a flip of the coins will render a non-same sided result is 2:4 or 50%. Thus, we can say that there is twice as much of a chance that two flips will result in a non-same sided result (TH or HT) than a same-sided result (TT or HH) because probability is the number of desired outcomes divided by the number of possible outcomes.

There are no guarantees of any particular outcome in this experiment. There are only probabilities that the results will show up in patterns. In the classical

experiment that shows the reliability of this theory, subjects flip two coins, but only once or twice. In just a few flips of the coins, there does not appear to be any recognizable pattern. The results are random. However, when these same people flip the coins 100 times, a pattern emerges. Give or take a few variances, most results are around 25 TTs, 25 HHs, and 50 TH/HTs. For probability theorists, this shows that if something is done once, anything can happen. However, if something is done over and over, depending on its structural limitations, a pattern will become visible (note that this is why this method is an effective way to determine the beginnings of sporting matches and games—since the results guarantee no outcomes for one side or the other, it is considered to be fair).

Importantly, each flip of the coins in the above experiment is completely independent. In other words, what happens on one flip has no influence on what will result in the next flip...even though we "see" a pattern when many flips are involved. Despite this fact, human beings tend to believe that the consecutive flips of the coin are related in some way or another. For example, when presented with two possible sequences of flip results, research subjects have shown a preference for the likelihood of a random sequence. If asked to infer which sequence is more likely to result from random flips of coins, subjects prefer a sequence like TH, HT, TT, TH, HT, HH over something like HH, HH, HH, HH, HH, HH. Though the possibility of either sequence occurring is exactly the same, human beings seem to think, intuitively, that the latter is less likely to happen. Why? The answer is that because the latter sequence does not

appear to be random at all, people infer that there must be hidden forces at work causing the sequence to occur as such. (Vyse 1997)

In a similar experiment involving inferences about likelihood, subjects were shown an outcome sequence that appeared to be systematically random (and thus not really random at all). Subjects had difficulty accepting that random flips of a single coin could produce effects like H, T, H, T, H, T, H, T or H, H, T, T, H, H, T, T. These results seem to violate our expectations about how randomness ought to occur. (Vyse 1997, p. 100)

Having deeply rooted – and non-culturally learned – expectations about how the world ought to work leads to other interesting psychological effects that bear on our belief in luck. Two of the most common cognitive mistakes that humans make collectively constitute the "gambler's fallacy," which is based on the beliefs that (a) forces outside wholly mechanical processes can influence an outcome, and that (b) positive and negative results ought to average out over a period of time (also known as the "law of averages"). In the first case, we find that human beings believe that they can influence the outcome of an entirely mechanical and random process, for example by performing superstitious actions. This misconception is known as the gambler's fallacy for good reason. Gamblers are notoriously prone to performing rituals and other actions that they believe will influence the outcome of a game of chance. Those who play games like roulette or craps might chant an incantation before their turn (e.g. "Come on sevens....Daddy needs a new pair of shoes!!!"). While in some sense, humans "know" that the wheel is just a set of mechanical

devices and thus that the results of such games are random, anyone who has ever gambled in a game of chance knows also how natural it feels to try to influence the outcome, often by "talking" to the game as if it had some kind of psychological agency.

The second aspect of the gambler's fallacy, which is widespread among people whose livelihoods (and lives in some cases) depend on variables outside of their control, like athletes, fishermen, and stock traders, is the belief in the law of averages. Informally, this is known as someone or something being "due." In this case, in games, sporting matches, and other activities in which forces significantly or entirely beyond one's control determine outcomes, participants come to believe that a string of bad luck will be countered by a string of good luck. For example, athletes believe that when they go into "slumps," all they need is one good "break" to "open the floodgates" of good luck. And in contrast, athletes are prone to the belief in having a "hot hand," and will perform arbitrary actions that they believe will make the string of good luck continue (e.g. Wade Boggs eating chicken on every game day because he had good luck in one game early in his career after having eaten chicken). (Gilovich, Vallone, and Tversky 1985)

On the other hand, gamblers believe that a string of losses at a game of chance increases the sense that a person is about to win, despite the fact that (as was shown in the coin-flipping example) each successive try in the game occurs independently. Thus, one could quite possibly lose every single time forever, though we might be hard pressed to believe this statistical probability. (R. Falk 1981, 1989; Lopes & Oden

1987; Timberlake & Lucas, 1985; Blackmore 1985; Killeen 1977; Becker 1975; Langer & Roth 1975; Oldman 1974; Cohen 1960)

More generally, the gambler's fallacy is the belief that things "even out" in the world – a presumption that is at the heart of religious ideas. From this fact, we might conclude that the ideas embedded in these two theological traditions don't cause people to think that things even out in life, but rather, because human beings intuitively presume, because of their cognitive biases, that things even out, religious ideas like Buddhism and Christianity are successfully transmitted because they exploit this much more basic notion. (Boyer 2001)

In addition to the varieties of cognitive inferences we make regarding randomness and variability, humans also seem prone to spotting coincidences and to representing them as fateful events. Despite the mechanical randomness of many of life's events, humans tend to "link" events together in ways that make their relationship meaningful. Consider the fact that one of the best selling books of all time was James Redfield's (1993) *The Celestine Prophecy*. Its primary "thesis" (it was fiction) was that life moves in sequences of important events that link you with your destiny. Redfield asked readers to reflect upon the most important events in their lives...namely those that have led them to where they are today. Why did you pick the college you attended? Why did you meet the person you ended up marrying? Why did you decide not to go to work on September 11? Etc. According to Redfield, such events are not "coincidences" at all, but are in fact part of your destiny.

Thousands of readers, we can assume from the book's popularity, resonated with this idea.

The overwhelming popularity of this book supports anecdotal and experimental research that suggests that humans imbue things and events with "purposes." Psychologist Deb Kelemen has called this tendency, "promiscuous teleology," and it is a feature not just of children's' thoughts, but adults' as well. (Kelemen 1999a, 1999b, 1999c, 1999d)

Making inferential judgments like this is based on biased preconceptions about why events occur, and much of this bias is based in intuitions about the likelihood of events occurring. One very interesting example of this was produced by cognitive psychologists who asked a classroom of college students about the likelihood of two people in the same class having the same birthday. As they predicted, most students were convinced that the likelihood was very low, and therefore if two students did share the same birthday, it would be a coincidence. As it turns out, the probability is actually higher than 50% for classes with at least 23 students. This example, when tested in classrooms, has proven to shock students on numerous occasions (and as such has become a favorite tool of professors of mathematics and statistics) because it violates our expectations about the likelihood of the event occurring. (Paulos 1988)

Furthermore, the element of surprise that underlies coincidence seems to lead people to infer that a hidden cause must be at play in such an event. This is because coincidences seem to challenge our intuitions about how the world ought to work. It

also reveals that human beings, when they infer the causes of events (including the likelihood of their occurrence), employ selective remembering, which enhances the feeling of the specialness of coincidental events. (Vyse 1997) Consider again the case of the coincidence of shared birth dates. What's also striking about this case is that in a class of 23 students or more, subjects are shocked to learn that two people have the same birthday. What gets overlooked, however, is that at least 21 students *did not* share the same birth date. This suggests that we tend to focus on singular events that are seemingly congruent, and ignore the overwhelming majority of events that are not. This phenomenon is further evident in the notion that humans live in a "small world," whenever they meet another person with whom they have some – however remote – connection.

Heuristics and Biases

What most of this suggests is that a good portion of human thought is based not on what's learned from culture per se, but rather on what one infers. Inference requires various kinds of postulations and presumptions that are based on tacit assumptions about the world and its workings as much as it does about invoking culturally learned "worldviews," as cultural determinists would maintain. (see Chapter Two) Humans employ heuristics as a short cut to make sense of their world, and the use of heuristics reveals that the mind biases reality in certain ways. We might justifiably count the belief in luck, and the tendency to believe one can influence luck, as such a case.

But what is most striking about this phenomenon is not that such thinking exists, but why it persists, especially in our modern (i.e. scientific) world. With citizens of both the United States and countries of South Asia (though to a lesser degree) being inundated from early on with scientific ideas about how the world works, why do people still remain "superstitious"? As is the case with the supposed influence of religion (i.e. theology), psychologists are beginning to show conclusively that scientific ideas can also have little effect on human beings' on-line thinking. Again, consider the case of the "setting" sun in Chapter Three. Despite the fact that we know the sun does not move around the Earth, we still act as if it does.

One of the reasons that we are still inclined to think inductively, and therefore to misconceive of the "reasons" for why things happen in the ways they do, is that we have been designed by natural selection to perceive and control our environment in ways that allow us to survive. Obviously, in order to control what's around us, we need to have a fairly solid grasp of what's happening. However, most of our "theories" about what is going on in our world must be constructed from incomplete or under-specified data. When we hear a rustling sound in the woods, we don't have all of the data we need to know what's happening...but we know enough to know that we ought to be on high alert. We presume that what is in the woods is some kind of psychological agent. We also presume that the agent has intentions, such as possibly wanting to eat me. We also presume that the likelihood of that something eating me decreases significantly if I leave the area immediately. Notice that all of these

presumptions are interrelated and inferred and that we don't have to calculate this information deductively. Rather we do it instantly, inductively, and quite naturally.

The inferential process described in the above example shows just how important control is for our survival. Gaining control of a situation requires engaging in a very complicated mental process with a variety of cognitive tasks, and doing so rapidly. This process turns out to be employed for most situations in our daily lives. Thus, when humans encounter circumstances in which they appear to have no control, we ought not be surprised that they will still tend to act if they do, or they will try to figure out a way to gain control...whether real or imagined.

The Illusion of Control

A good example of the illusion of control was already given in the gambler's fallacy. Much of the ritual behavior that is believed to improve luck is related to the presumption that actions we perform can influence the outcomes of otherwise mechanical processes. (Malinowski 1948) Consider the activities people perform while on airplanes, where their fates are almost entirely out of their control and in the hands of pilots and the mechanical workings of the plane. Consider the rituals that athletes perform in preparation for and during competition. Consider the behavior of gamblers, stock traders, sailors, fishermen, and other folks whose livelihoods depend on processes that are largely beyond human control (consider individuals and their families who are confronted with the possibility of illness and mortality). All of these

people are prone to believe in the forces of luck, and to perform rituals in hopes of receiving some good luck.

But, you might protest, there are cases in which luck seems to actually occur. You may, in fact, be able to prove that in-flight rituals work. The proof is in the pudding...not one single plane you've been on has crashed since you've begun to tap your forehead four times successively or perform some other arbitrary action. Furthermore, maybe you've won the lottery by playing your lucky numbers, or you know someone who has. Or, maybe you've had the hot hand in sports. Maybe you think that that "getting hot" resulted from not washing your uniform (including your undergarments). Maybe you know someone who is just plain lucky or someone else who is just plain unlucky. Isn't this enough proof that luck exists and that luck rituals work?

This argument is one of the most powerful for folks who believe, or want to believe, in luck. Yet, it is a fallacy. According to the principles of science, for a hypothesis to count as a theory, it must have as a property the potential to be disconfirmed. Such theories about the proof of luck are "unfalsifiable" beliefs (not theories), because evidence counts only for the belief, never against it. In such cases, if evidence seems to disconfirm the hypothesis, that piece of evidence (or its accompanying theory) is simply discarded.

The tendency to evaluate evidence selectively reveals what psychologists call "confirmation bias," which itself is based on a correlation illusion. (Vyse 1997) Confirmation bias is exactly what it sounds like, the bias to see what one is looking

for, or to selectively identify bits of evidence that seem only to confirm what one believes (or hopes). A good example of this phenomenon is the case of astrology, in which a person who believes in horoscopes "sees" proof of their verity all around. Skeptics, in contrast, don't see any proof anywhere.

Confirmation bias is in turn based on the illusion of correlation, in which an event is correlated with a postulated cause. For instance, athletes might believe that their pre-game ritual is the cause of positive outcomes of contests. Gamblers might believe that their incantations are the cause of their winning. In these cases, correlations are confused with causes. And correlation illusions fuel luck beliefs and luck rituals because they allow humans to identify some cause, most likely a controllable cause, to an event.

Summary

People presume that luck exists because their brains work in such a way that they are prone to such representations. The belief in luck results from a complex interaction of cognitive strategies, such as the employment of heuristics and biases, that people use in their everyday engagement with the world. In order to act in a complex world, humans have to have some sense of the way in which things work, namely what kinds of things cause what kinds of events. That kind of knowledge is, for humans, probabilistic (at least after the age of six or seven). Thus, we maintain in our daily lives deeply seated expectations about what is likely to occur and what is

not. However, we know from experience, that sometimes things don't happen the way we expect. Some events are unlikely, but happen nevertheless.

Furthermore, we know that events have important impacts on our lives (which is why we are so concerned with making sense of the world). We know that life is full of "ups and downs." In such a world, we strive to gain as much control as possible over event outcomes, even in cases where our actual ability to control events is significantly low (or entirely impossible). The desire to do so is nonetheless still there, and it surfaces in the notion that unlikely events, which have affect us positively or negatively, have the hidden (and ambiguous) "cause" of luck. Once a cause is postulated, we naturally feel that we can influence that cause, because of our natural biases about agents, agency, and the likelihood of events occurring. Thus, we ought not be surprised to find the belief in luck all throughout the world. It is, like other forms of theological incorrectness, a natural by-product of human cognition.

CHAPTER EIGHT

CONCLUSION

The cognitive revolution has changed what we once thought about religion. We now know that cultural theories of religion are impoverished by a lack of understanding of how the mind works, and thus of why humans think what they think and do what they do. Most cultural theories of religion assume that the mind is a blank slate that learns what to think from culture. Not only is this inaccurate, it is also illogical. One of the most striking examples of why this cannot be the case is the widespread existence of theological incorrectness. Were humans merely cultural sponges we would find that each culture would be autonomous, confined, and homogenous. Every member of a given culture would think exactly the same thing. This theory, to say the least, doesn't fit the evidence.

The only way to explain why people believe what they "shouldn't," is that people have active minds that are continuously engaged in both the construction of novel thoughts and in the transformation of culturally transmitted ideas. In contrast, the cultural model of religion, not to mention conventional wisdom, implies that religious people deduce their thoughts from the premises of given theological, cultural, or scientific premises. In reality, however, people spend most of their time thinking inductively, and so use on-line cognitive strategies that employ tacit, non-

cultural, knowledge about the world and its workings. Therefore the key to understanding (lived) religion is identifying the aspects of cognition that constrain religious behavior.

Three very important aspects of cognition that constrain religion are intuitive ontology (what kinds of things are in the world), intuitive metaphysics (how do those things work), and intuitive probability (how are those things likely to work). These basic cognitive capacities not only allow us to perform important functions required for survival, like analysis and prediction of environmental activity, they also produce postulations and presumptions that might be, upon reflection, systematically incoherent. In this sense, theological incorrectness is a natural by-product of the cognitive tools we have. So, what are the implications of this for our understanding, study and teaching of comparative religion?

First, theological incorrectness is, in most cases, not only natural but also harmless. If a person is playing golf and attributes a high (i.e. bad) score to bad luck, so what? If an airline passenger feels more secure by saying a prayer, so what? If a sailor or an athlete gets prepared by performing seemingly arbitrary rituals, so what? These cases seem to be personally and socially nontoxic. Furthermore, this enables us to understand that theological incorrectness is not merely a sign of sloppy thinking, as one might assume. Rather, theological incorrectness is a by-product of capacity (i.e. how we are constrained by cognition), not effort.

But are all cases of theological incorrectness harmless? Consider the fact that Nancy Reagan, a Christian, often consulted the stars for advice on her husband's

presidential policies. What if the stars had told her to drop a nuclear bomb on the U.S.S.R. and her husband, also a practicing Christian, had followed that advice? Or consider a gambler who, feeling "due," bets his or her life savings on a horse (picked by a novice). Think of a religious family that refuses treatment for an ill child on the grounds that incantations will be efficacious (though Christian Science might be an exceptional case here). These cases don't seem to be so harmless.

So we have a potential problem. If one thing has become certain from this jaunt through cognition, it is that theological incorrectness is tenacious – the mind seems to think what it wants to, no matter what we teach it. No matter how many times we point out that the sun does not revolve around the Earth, folks will just go on believing that they saw the sun set and rise. No matter how many times we point out that the probability of two classmates sharing a birth date is better than 50%, people will still be surprised when it happens. And, no matter how much we teach people that God or karma is in charge of everything, they are going to go on believing that they have an inner (or internal) locus of control.

One of the most important pillars of cognitive science that we would do well to keep in mind is that humans are products of evolution. This means, in short, that what we think and do are largely constrained by our genetic endowments. This means that we are governed by our design because, over time, the benefits of our cognitive capacities have outweighed their costs. Thus, regardless of what we seem to teach people, by and large human populations will follow patters of behavior that are the result of cognitive predispositions. Even the "highest" form of human achievement,

virtue, seems to be the product of evolution. As part of our human cognition, we are born with an instinct toward reciprocity. Instead of religion causing us to be good, i.e. to cooperate, religions actually exploit this apparently innate tendency. Religions preach ethics because people are prone to "ethical" behavior, not the other way around. (Ridley 1997; Dawkins 1989)

We might say, therefore, that religion is not a cause of behavior *per se*. It does not determine how we think or act. Yet neither does it prevent us from thinking or acting in ways that we "shouldn't." Being a Muslim doesn't cause people not to commit acts of murder. Being a Christian does not cause people not to be superstitious. Being a Buddhist does not cause people not to pollute the environment. Being religious is merely one part of that complex puzzle that is human behavior and the dichotomy between nature and nurture, or determinism and free-will, is largely ill-formed. It is a false dichotomy because we have, to use Daniel Dennet's phrase, "elbow room" to act. (Dennett 1984)

In light of the fact that religion is a natural by-product of cognition, which is itself part of the equipment with which humans are endowed as a result of the processes of natural selection, the study of comparative religion should include three components. First, substantive studies of religion ought to include not just theology but also ethnography and psychology. We need data that includes not just the ideal and the empirical, but also the experimental. Second, our theories about religious behavior must be informed by the cognitive and biological sciences. Human behavior has proven over and over again to be susceptible to scientific methods of inquiry,

especially given the advances made in methods of evaluation by philosophers of science, and religious behavior is no exception. While religion constitutes an object of study in its own right, it is not, as scholars once claimed, *sui generis*. Finally, at the upper levels of analysis (e.g. in advanced undergraduate and graduate courses), metatheory must be informed by an up-to-date epistemology and philosophy of science. The study of religion must become more scientific, not less so, if it is to be comparative. This will require that students of religion become more comfortable with the function, generation, and evaluation of explanatory theories. Philosophers of science have shown that a reductionism in the social sciences is actually quite different than religion scholars often imagine. Reductionism is not only possible, but also quite fruitful. And, most importantly, reductionist theories have little effect on the richness of human experiences. Science does not "dehumanize" human experiences. (see Wilson 1998; Damasio 1994; Rosenberg 1997). Thus, combined, these three qualities would help to make the discipline of comparative religion a legitimate scientific enterprise suitable for the modern secular university.

Finally, a comparative study of religion informed by the cognitive sciences would enhance our pedagogical effectiveness. For one, defining religion prototypically allows for a truly comparative enterprise. Students will be empowered to draw inferences about the phenomenon of religion from their own background experiences if they understand how another system is more-or-less like the system they know best. Second, substantive data from theology, ethnography, and psychology could be combined to enrich the student's awareness of the various

features of a religious tradition, and again, allow them to invoke personal knowledge. And finally, theoretical arguments about the cross-culturally recurrent patterns of religious thought and action are made possible when human beings are taken as a universal. Students are naturally aware of the differences between religious systems. What is needed, in contrast, is a way for them to understand what the similarities between religions are as well as why those similarities recur across cultures and time. In this way, students can engage the study of religion as they would the study of matter, cells, mind, politics, or any other object of scientific inquiry.

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