# Empiricist Mind, Humanist Heart, Part I

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Thank you to everyone who is here today for giving me this opportunity to share with you some of what has recently been on my mind and in my heart. Today I want to talk about what it means to me to have become a Unitarian-Universalist. I only joined UU a few months ago, and much of the joy I now feel about having become a member I owe to the warm welcome I have received from this community. I've attended a lot of different churches and was actually a member of the Albuquerque Unitarian Church for over a decade, but never quite got over the feeling of being an outsider. When I learned that what we have here is a fellowship, not a church, I suddenly felt right at home. The concept of a fellowship feels a lot more comfortable to me, like a set of clothes that fits just right.

So, I began asking myself: what allows me to identify so strongly now as Unitarian-Universalist? What values and beliefs did I already have that make this new identity feel so right? Unitarian-Universalists are sometimes accused of being wishy-washy, of sitting on the fence regarding what they believe. Because we welcome both believers and nonbelievers, atheists and agnostics, people of other faiths sometimes accuse us of having no beliefs at all. In fact, my talk today proposes that our open-mindedness—the fact that we embrace different ways of answering the question "Does God exist?"— can be seen as the logical outcome of a train of thought that originates in empirical science. Much of my thinking on this subject comes from my study of neuroscience over the past 18 years. It's also influenced by the story of the blind men and the elephant, which illustrates how different perspectives on a single truth can coexist.

The title of my talk, Empiricist Mind, Humanist Heart, was inspired by a book that contributed a lot to my thinking about this topic, titled *Atheist Mind, Humanist Heart: Rewriting the Ten Commandments for the Twenty-First Century*. About 10 years ago, when I was home-schooling my 13-year old granddaughter, I read the entire book to her out loud, and we both agreed that we liked it a lot. Then my husband read it as well, and we all liked it so much as a family that we ended up putting a version of what they call the 10 non-commandments on our refrigerator.

The authors of the book, two avowed atheists, address the following question: in the absence of a higher authority—God, the bible, or the 10 Commandments—what should we believe, and how should we treat one another? Rather than taking a top-down approach, they propose constructing a system of beliefs and values from the bottom up, starting with a set of core beliefs that we can all agree on because they are grounded in common sense and everyday experience. As someone who values my own ability to think critically and independently, I found this approach deeply appealing.

One of the things I especially appreciated about the book was its open-mindedness. The authors do not expect us to agree with everything they say. Instead, they encourage us to establish our own set of beliefs and values—ones we have thought through for ourselves. In place of the 10 Commandments of the Old Testament, they offer what they call "the 10 Non-Commandments" a set of principles that they

believe are internally consistent and build on one another from the bottom up. They call them "non-commandments" to make clear that their system of beliefs may be subject to later revision. In fact, the 10th Non-Commandment states this explicitly as follows: "All our beliefs are subject to change in the face of new evidence, including these."

As the title suggests, the book is divided into two parts. The first part, Atheist Mind, develops a coherent set of beliefs, while the second part, Humanist Heart, develops an equally coherent set of values. They divide the 10 Non-commandments into two halves as well, devoting the first five to beliefs and the rest to values.

In my talk today, I will be using their 10 non-commandments as the starting point for coming up with a similar set of beliefs and values that I think we can all agree upon as Unitarian-Universalists. The first part of my talk will address the first five non-commandments, dealing with beliefs. The second part of my talk, which I will deliver at a later time, will do the same for values. I will be weaving together ideas from neuroscience and the story of the blind men and the elephant to help us reshape the outline the authors provide into one that we can easily agree upon and share.

## The First Three Non-Commandments

1. The world is real.
2. We use our senses to perceive the world.
3. We use language and thought as tools to describe and understand what we perceive.

The first three noncommandments appear to be ones that we can easily agree upon. First, we take it for granted that the world we live in is real. Just like in the story, the blind men have no doubt that the elephant that they come in contact with is real, even if they are not sure what it is like.

The second non-commandment, that we use our senses to perceive the world, also seems self-evident. Although the blind men have no sight, they are able to use their other senses to perceive the world around them, including hearing, touch, smell and taste.

The third point seems to satisfy common sense as well. Language serves as a tool that we use to share our perceptions with one another by putting them into words. The fact that we don't always agree on which words to choose is illustrated by the story of the blind men as well, showing that language, just like our senses, has its limitations. Furthermore, some aspects of reality may be hard to put into words at all.

The fourth non-commandment, "All truth is proportional to the evidence" appears to radically differ from the first three. First, it lacks parallelism with the second and third non-commandments, making it difficult to see how it builds upon them. Second, it is very different in tone, sounding more like an edict than an observation.

If we read more closely what the authors have to say about the fourth non-commandment, it appears that what they are really trying to say is that they believe in empirical science; a belief that we Unitarian-Universalists can readily share. Thus I propose that we rewrite the fourth non-commandment to bring it into closer alignment with the first three, as follows:

## The Fourth Non-Commandment (revised)

1. The world is real.
2. We use our senses to perceive the world.
3. We use language and thought as tools to describe and understand what we perceive.
4. ~~All truth is proportional to the evidence~~. We use empirical science as a tool to gain knowledge about the world that allows us to make more accurate predictions.

This way of stating the fourth non-commandment casts empirical science as yet another tool that we humans can use to extend what our senses can observe directly. On the one hand, science provides us with sophisticated instruments to observe phenomena that cannot be perceived using our senses. On the other hand, it gives us a systematic way of gathering evidence that can be used to evaluate scientific theories, allowing a consensus to be reached among the members of a scientific community.

This way of stating the fourth non-commandment has the advantage of getting rid of the troublesome word "truth," bringing us a bit closer to how science actually works. Scientists rarely claim to have proven anything. Rather, they couch their ideas as theories, often competing theories, that they then test experimentally, to see which one produces the most accurate predictions. Thus, we have "big bang theory" and "string theory" and Darwin's "theory of evolution," but these theories are never stated as facts. Instead, scientists strive to make increasingly accurate predictions without expecting that they will ever reach an endpoint that could be called the "truth."

We are now ready to tackle the fifth non-commandment, which states that "There is no God." Given that atheists make up only 7% of the UU population, with the remaining 93% identifying as either agnostic or as having some kind of belief in God, clearly, we must come up with an alternative version of this non-commandment.

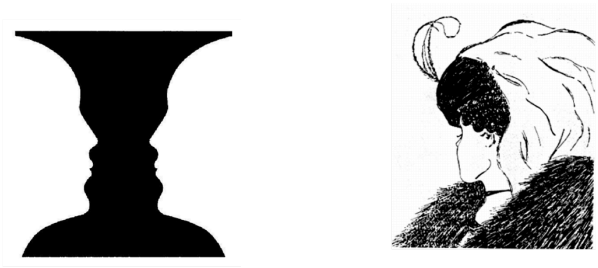
We can begin by stating out loud the question that the authors intend this non-commandment to answer: Does God exist? yes or no? They claim that scientific evidence overwhelmingly favors their belief that there is no God, while readily admitting that science cannot prove that God does not exist. They also acknowledge that it is possible to remain on the fence about the existence of God, that is, we can choose to be agnostic, but they argue that atheists and agnostics are actually one and the same, that they simply occupy different positions with regard to their level of doubt. As a lifelong agnostic myself, I resist the idea of being lumped in with atheists because I consider my belief system to differ

from theirs in ways that matter a lot to me. First, questions about the existence of God evoke feelings of humility in me that make me feel that it would be presumptuous of me to claim to have definitive answers.

But I would also like to suggest that we can reject their 5th non-commandment for reasons that are justified by empirical science. First, the way they phrase the question, Does God exist, yes or no, is an example of what one cognitive scientist has dubbed the "exclusionary fallacy," and which I like to refer to more informally as "this-not-that" thinking, which is something that all of us are guilty of at least some of the time. It turns out that we can't help but engage in this-not-that thinking because our brains are designed to produce "this-not-that" answers to questions as our default mode of operation.

To help you better understand what I mean by "this-not-that" thinking, here are a couple of examples that will help you see for yourself how hard it can be to overcome:

## "this-not-that" thinking



### "winner-take-all" neuronal competition

If you look at the figure on the left, you are likely to see it as either a vase or two faces, but find it virtually impossible to see both at the same time. Likewise, in the case of the figure on the right, you are likely to see either a young lady or an old hag and find it impossible to see both young lady and old hag at the same time. Why? Because at one time in our ancient prehistory, it proved to be advantageous for us humans to leap to conclusions, to decide immediately whether someone was friend or foe, because if we stopped to think about it, we might end up dead. Neuroscientists are able to explain this bias toward "this-not-that" thinking in terms of a "winner-take-all" competition among groups of neurons. One group of neurons is primed to fire in response to the image of the vase, while another group equally is primed to fire to the image of two faces, and just like in a democratic election, the image that gets the largest number of votes wins.

Scientists are far from immune to this-not-that thinking, and the history of science is littered with debates that boil down to examples of just that style of thinking, where each group of scientists

observes different parts of reality to the exclusion of others. Here are two famous examples of debates that went on for centuries before being resolved in favor of both points of view being correct:

## this-not-that" scientific debate

### Is light made up of waves or particles?

- Isaac Newton (18th c): light is made up of particles
- Christian Huygen (19th c): light is made up of waves
- Albert Einstein (20th c): light is made up of waves and particles

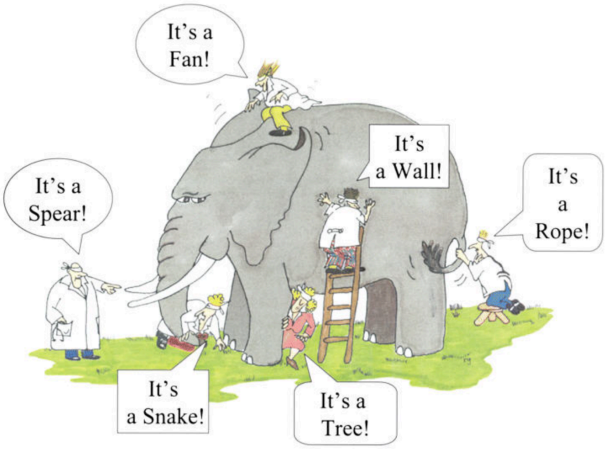
### Is human behavior determined by nature or nurture?

- John Locke (17th c): behavior is determined by our environment
- Charles Darwin (19th c): behavior is determined by our genes
- B.F. Skinner (20th c): behavior is determined by our environment
- 21st century: behavior is determined by genes and environment

The first debate was regarding the nature of light, whether it is made up of waves or particles. This debate went back and forth for centuries until Albert Einstein demonstrated that both theories were needed to fully account for the behavior of light.

Likewise, in the case of human behavior, psychologists argued with one another for centuries about whether it was determined by our genes (that is, nature) or our environment (that is, nurture). The so-called nature-nurture debate was not fully resolved until the 21st century when scientists on both sides came to realize that while our behavior is determined in part by our genes, those genetic programs are overlaid by what we learn from our physical surroundings, our parents, our teachers, our peers, and society at large.

Here is an updated version of the story of the blind men and the elephant, in which the blind men are wearing lab coats. It reminds us that even scientists have their blind spots, parts of reality that they are unable to see. Scientists may be leading authorities within their own area of expertise, yet have little knowledge of how the same phenomena are interpreted from the perspective of other disciplines.



We can now revise the fifth non-commandment to bring it into agreement with our own UU belief system: “Each of us is free to believe in God or not and understand God in our own way.” This way of describing what we believe about the existence of God makes clear the value that UU places on open-mindedness. But how can we reconcile our belief in the value of open-mindedness regarding the existence of God with our embrace of empirical science?

Here we can refer back to the story of the blind men and the elephant and ask whether the scientists who have been looking for evidence of God’s existence could have failed to find it for the precise reason that they were looking for it in the wrong places. Scientists generally limit themselves to studying the physical world, including the human body, brain and nervous system, while excluding what we normally refer to as subjective experience. Neuroscientists have learned a great deal about the physical nature of the human brain, yet their sophisticated tools and measuring machines do not allow them to directly observe what it is like to inhabit a human body. Their machines have nothing to say about our feelings of joy, guilt, ecstasy, love, hatred or grief. These are among the kinds of things that neuroscientists and philosophers alike refer to as “qualia,” and neuroscientists have to admit that they are completely at a loss to explain them. All they are able to study with their scientific instruments is what they refer to as the “neural correlates” of our feelings, not the feelings themselves.

So they put human subjects inside of MRI machines and attach them to EEG monitors while probing them with electrodes to evoke feelings of fear, anger, love, ecstasy, awe, insight, and spirituality. But while they can observe the squiggles on the EEG scan and the increase in blood flow in certain regions of the brain, they cannot observe the feelings themselves, which they can only learn about secondhand from the verbal reports of their human subjects. Yet our feelings are just as real as the objects that we observe in the physical world, and in fact may be the part of reality that matters most to us. This surely includes the feeling that at least some of us experience of being part of a larger whole, whether all of humanity, all of life on earth, or what some would call God.

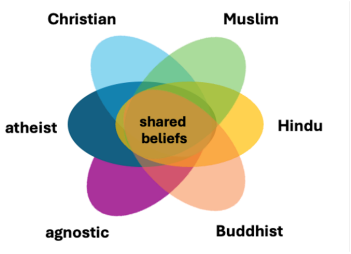
To go back to our story of the blind men and the elephant one last time, we can come up with a moral for the story, namely: “Reality is complex and each of us experiences it differently. But when we share our experiences with one another and listen to one another with open hearts and minds, we enrich one another’s experiences and have an opportunity to put the pieces together to form a larger whole.”

For those who are able to believe in God, faith in the existence of a benevolent, all-seeing, all-loving God can bring feelings of comfort and well-being, as well as a sense of mysticism and awe. Psychological studies have shown that those who believe in God tend to be happier overall, so perhaps that can serve as scientific evidence that a belief in God is justified, at least in terms of our enhanced well-being. As a life-long agnostic, I continue to hold on to the hope that I will someday share that belief as well.

I want to end by showing you a slide that summarizes how I see our UU belief system:

## UU Shared Beliefs

1. The world is real.
2. We use our senses to perceive the world.
3. We use language and thought as tools to describe and understand what we perceive.
4. We use empirical science as a tool to gain knowledge about the world that allows us to make more accurate predictions.
5. Each of us is free to believe in God or not and understand God in our own way.




My revised version of the first five non-commandments appears on the left, while on the right is a figure that shows how our shared beliefs join together to form an integrated whole. The beliefs that we have in common appear at the center, including our shared belief in empirical science, while all of the world's spiritual practices from which we draw inspiration branch outward from it like the multicolored petals of a flower.

I consider the fifth non-commandment to be the most important of all—our belief in the importance of keeping an open mind. Our open-mindedness can serve as a much-needed antidote to the kind of "this-not-that" thinking that sometimes gets in the way of our seeing how the various parts of reality form a larger whole. Furthermore, when we argue with one another rather than listening to one another, it becomes harder to connect to one another on an emotional and spiritual level. Our embrace of open-mindedness is perhaps at the heart of what it means to me to be a Unitarian-Universalist, and what I believe makes it possible for us to share our innermost feelings with one another, secure in the belief that others will hear what we have to say with open hearts and minds.