

→ You Are What You Feel

**HARDWIRED BELIEF IN IMMORTALITY SHARED BY DIFFERENT CULTURES**  
BY BARBARA MORAN

The strange and profound conviction that people are immortal holds true regardless of race, religion, or culture. We humans believe that part of ourselves—some indelible core, soul, or essence—will transcend the body’s death and live forever. But what is this essence? And more important, why do we believe in it?

A new study led by two College of Arts & Sciences psychology researchers sheds light on these questions by examining children’s ideas about “prelife,” the time before conception. Postdoctoral fellow Natalie Emmons’ research, which was published in the January 16, 2014, online edition of *Child Development*, included interviews with 283 chil-

dren from two distinct cultures in Ecuador. The study suggests that our bias toward immortality is a part of human intuition that emerges naturally early in life. And the part of us that is eternal, we believe, is not our skills or ability to reason, but rather our hopes, desires, and emotions. It suggests the existence of an equally profound notion: we are what we feel.

The study fits into a growing body of work examining the cognitive roots of religion. Although religion is a dominant force across cultures, science has made little headway in learning whether religious belief—such as the human tendency to believe in a creator—may actually be hardwired into our brains.

“This work shows that it’s possible for science to

study religious belief,” says coauthor Deborah Kelemen, a CAS associate professor of psychology. “At the same time, it helps us understand some universal aspects of human cognition and the structure of the mind.”

Most studies on immortality, or “eternalist,” beliefs have focused on people’s views of the afterlife. They have found that children and adults believe that bodily needs, such as hunger and thirst, end when people die, but mental capacities, such as thinking or feeling sad, continue in some form.

But these afterlife studies leave one critical question unanswered: where do these beliefs come from? Researchers have long suspected that people develop ideas about the afterlife through cultural exposure, like television,

movies, or religious instruction. But perhaps, Emmons postulated, these ideas of immortality actually emerge from our intuition. Just as children learn to talk without formal instruction, maybe they also intuit that part of their mind could exist apart from their body.

Emmons looked at “prelife,” the period before conception, since few cultures have beliefs or views on the subject. “By focusing on prelife, we could see if culture causes these beliefs to appear or if they appear spontaneously,” she says.

“It’s a brilliant idea,” says Paul Bloom, a Yale University professor of psychology and cognitive science, who was not involved with the study. “One persistent belief is that children learn these ideas through school or church.



That's what makes the prelife research so cool. It's a very clever way to get at children's beliefs on a topic where they aren't given answers ahead of time."

Emmons interviewed indigenous children from a Shuar village in the Amazon Basin of Ecuador. She chose the group because members have no cultural prelife beliefs, and she suspected that the children, who have regular exposure to birth and death through hunting and farming, would have a more rational, biologically based view of the time before they were conceived. For comparison, she also interviewed children from an urban area near Quito, Ecuador. Most of the urban children were Roman Catholic, a religion that teaches that life begins only at conception. If cultural influences were paramount, she reasoned, both urban and indigenous children should reject the idea of life before conception.

Emmons showed the children drawings of a baby, a young woman, and the same woman while pregnant, then asked a series of questions about the child's abilities, thoughts, and emotions during each period: as



**CHILDREN WERE** shown drawings of a baby, a young woman, and the same woman while pregnant, then asked a series of questions about the child's abilities, thoughts, and emotions during each period.

conception and that they didn't have the ability to think or remember. Both groups also said that their emotions and desires did exist before they were born. For example, while children generally reported that they didn't have eyes and couldn't see things before birth, they often reported being happy because they would soon meet their mother, or being sad that they were apart from their family. "They didn't even realize they were contradicting themselves," says Emmons.

Children reported being happy in the womb because they would soon meet their mother.

babies, in the womb, and before conception.

The results were surprising. Both groups gave remarkably similar answers despite their radically different cultures. The children reasoned that their bodies didn't exist before

"Even kids who had biological knowledge about reproduction still seemed to think that they had existed in some sort of eternal form. And that form seemed to be about emotions and desires."

Why would humans have evolved this seemingly uni-

versal belief in the eternal existence of our emotions? Emmons suspects that the human trait might be a by-product of our highly developed social reasoning.

"We're good at figuring out what people are thinking, what their emotions are, what their desires are," she says. She believes that we tend to see people as the sum of their mental states and that desires and emotions may be particularly helpful when predicting their behavior. Because this ability is so useful and so powerful, it flows over into other parts of our thinking. We sometimes see connections where none exist, we hope there's a master plan for the universe, we see purpose when there is none, and we imagine that a soul survives without a body.

These ideas, while non-scientific, are natural and deep-seated. "I study these things for a living, but find even myself defaulting to them," Emmons says. "I



**POSTDOCTORAL FELLOW** Natalie Emmons studied the beliefs of children from two very different cultures in Ecuador.



**STUDY COAUTHOR** Deborah Kelemen says the research helps us understand some universal aspects of human cognition and the structure of the mind.

know that my mind is a product of my brain, but I still like to think of myself as something independent of my body...We have the ability to reflect and reason scientifically, and we have the ability to reason based on our gut and intuition. And depending on the situation, one may be more useful than the other."

COURTESY OF NATALIE EMMONS (2)

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