

# Cosmic Conversations

## Study Guide

The interviews and dialogues in *Cosmic Conversations* explore some of the most radical, provocative, and transformative ideas and discoveries known about our universe. This study guide is an aid towards deeper exploration of those ideas, both for individuals and groups. It provides a framework for exploring, understanding, and digesting the rich material found in the book, as well as offering ways of making it personally relevant for individuals, groups, and organizations.

Note that like everything else in the universe, this study guide is in flux as well, and I'll continue to update it and post new versions of it as I receive feedback from individuals and groups. This version of the guide is dated **March 29, 2010**.

### Cosmic Conversations Groups

*We have this destiny – and even duty – to become astonished by the universe!*  
- Dr. Brian Swimme, from *Cosmic Conversations*

The interview format of *Cosmic Conversations* makes it easily adaptable for book groups or individuals who may want to study the book in bite-sized pieces, exploring and digesting the insights from each interview or section more fully before moving on to the next one. Discussion groups who adopt the book will likely find themselves using the ideas explored in the book as springboards for their own 'cosmic conversations' about the nature of the universe and our place in it.

Engaging in dialogue with others on the mysteries of existence is a time-honored way of discovering truth and wisdom for ourselves that has a long-standing tradition throughout history and in cultures around the world. Families, schools, religious communities, work groups, and circles of friends are all perfect venues for these kinds of conversations.

One of the central insights to come out of the interviews in the book is the idea that we live in a universe that can be seen and experienced from many different perspectives. We therefore need to look at the universe from many different angles that embrace and include scientific, religious, cultural, and personal viewpoints as ways of more fully grasping the larger picture.

Another major insight from the book is the radical idea that everything and everyone is a form of the universe being expressed in a particular way. In other words, each one of us can say with absolute certainty "We are the Universe!" Since we are the universe, each one of us provides a valuable perspective that complements the contributions of everyone and everything else around us. Each one of us is a cosmic laboratory within which we can discover the secrets of the universe. As many astronomers have recently begun to

say in various ways, we are each the universe having become aware of itself in our own unique way. The insights that the universe has many different perspectives and is both cosmic and personal has great transformative potential, and is worth reflecting on deeply. Engaging in cosmic conversations with others is one way of deepening our experience of these insights in a meaningful way. Exploring meaningful questions with others can bring out insights and connections that may not occur by ourselves or on our own. The emergent creativity and “co-intelligence” that can occur in groups is a leading topic in creativity research today.

Collective conversations about the universe can also be seen as a form of cosmological research. Since we each represent a unique expression of the universe, we are each uncovering something new about it through our explorations. We are like the frontier explorers of every culture and age, filled with the excitement and adventure of discovery, not knowing what new insights will be revealed from our exploration. This is the transformative potential of authentic dialogue – through the process of conversation and discovery new insights about the universe come into the world, changing ourselves in the process. Collective conversation and exploration has the potential to both inspire and transform the groups and the individuals who participate in them.

### Individual Exploration

Every book is a conversation between the book and the reader. Thoughtful reflection and personal exploration of meaningful and engaging ideas is a time-honored way of drawing upon and evoking our own inherent wisdom. Many people will choose to explore these ideas privately as a form of self-exploration and individuation. Since we each have a personal relationship with the universe, having a cosmic conversation with ourselves can be a way of articulating and elaborating our worldview and the details of that relationship. All of the above suggestions for groups apply equally well for individual exploration. If you explore these topics on your own, here are some suggestions:

Journaling: Writing is a way that many artists, scientists, and others have used to explore intellectual and creative topics while at the same time recording their creative process and insights gained. Writing in a journal, typing on a computer, or drawing in a sketchbook are all ways of exploring ideas in a concrete and meaningful way.

Imaginal dialogue: You might visualize yourself talking to someone who really listens to you while you explore topics that matter to you deeply. Speaking out loud is one way of articulating the details of ideas that might otherwise be skipped over or remain hidden by simply thinking about them. You might try this somewhere where you feel comfortable talking out loud: at home, in your car, or anytime you’re by yourself.

Thought experiments: Einstein and many other great scientists have been fans of the thought experiments as a way of trying out new ideas. Take one idea from the book that inspires you and imagine what it means about yourself and the universe you live in if this idea is true. Try spending a day walking around inside this new perspective and notice

how this affects how you view yourself, your interactions with others, and your relationship to the world around you.

Rational Thought: You might take one idea, question, or perspective from the book and explore its logical implications. What does this mean about reality if this is true? What does this mean about myself if this is true? This type of exploration is a good way to reveal logical inconsistencies in our thinking and beliefs about the universe, such as concepts that may be true about the universe “out there” but not for oneself.

These are only a few suggestions, and there are a plethora of further possibilities for exploration. Find what resonates for you at the time and engage the interest and energy of discovery to see where it goes!

### Cosmic Questions

*The important thing is not to stop questioning. Curiosity has its own reason for existing. One cannot help but be in awe when one contemplates the mysteries of eternity... Never lose a holy curiosity. – Albert Einstein*

Whether you explore the topics in the book individually or in groups, you might consider some of the following questions to jump-start your exploration. Once you hit upon a topic or question that has richness or depth for you, try staying with it and following it deeper until all its possibilities have been exhausted. Don't feel you have to “go on” to another question before fully exploring a question that has meaning for you.

Which of the interviews or topics in the book resonated or inspired you the most? Why? How does this topic affect you personally? What has changed for you in your views on the universe after exploring the implications of this for yourself?

Which section or sections in the book (science, spirituality, or culture) do you find yourself naturally leaning towards? Why do these views and perspectives on the universe draw you more strongly than others?

What do *you* think the universe is made of? Is it matter, energy, spirit, space, emptiness, fullness, or something else entirely?

If you said it was more than one of the above, how do you believe these different elements interact with one another? Are some of them incompatible with each other? You might draw a picture or a diagram of how it all fits together for you.

What is your personal creation story about the universe? Where did it come from and how has it produced you? Are there differences between your origin story and that of the culture you live in? How do you reconcile those differences?

How is the universe organized for you? Is it purposeful, meaningless, ordered, random, intelligent, or non-intelligent? Do some parts reflect more of these qualities than others?

Many cultures around the world and throughout history believe the universe is alive, acting as a living organism. What do you think? Does it make a difference in how you interact in the world whether the universe is living or not? Do your actions in your daily life reflect one viewpoint or another?

Is there a moral element to the cosmos? In other words, is it fundamentally good, evil, friendly, hostile, neutral, or a mixture of all of the above?

Einstein once said one of the most important questions we can ask ourselves is “Is the universe friendly?” What do you think? How does it affect your view of the world to see the universe as friendly, hostile, or neutral?

Does the universe care about you personally? If so, how does this show up for you? If not, how does this affect you?

What are your definitions of science and spirituality, and how do they relate to one another and the universe?

Do you see a spiritual dimension to the universe, and if so, how does it relate and interact with its physical or material dimension? Does this relationship between the spiritual and physical apply to yourself as well?

Is there a higher power in your cosmic view, and if so, what is the relationship of this higher power to the universe and yourself? Is this higher power actively engaged in the world or removed from it? How does the relationship between the higher power, the universe, and yourself affect your participation in the world?

## Glossary

Below is a brief listing of some of the terms and concepts used in *Cosmic Conversations*.

**Anima Mundi** The spiritual essence or soul of the world and the animating, creative, and living principle of the universe. Many ancient philosophers viewed the cosmos as a living being permeated with divine spirit that was the source of all creativity and life. Later Carl Jung and James Hillman referred to the anima mundi as the World Soul, the collective mythic and spiritual consciousness of the world.

**Big Bang Theory** The leading scientific account of the origin of the universe. The theory suggests that all matter and energy in the universe began in an extremely hot, compact, dense state 13.7 billion years ago, and has been expanding and cooling ever since.

**Consciousness** Awareness, mind, knowing, or subjective experience. Interestingly, while the nature of consciousness is fundamental to our basic experience and understanding of

ourselves and the world, there is no generally agreed on theory or definition of it among psychology, neuroscience, philosophy, physics, mysticism, or other fields. Its nature seems extremely elusive, so that while we “know that we know,” we don’t seem to fully understand how we know we know or the basic nature of the mind that knows.

**Cosmology** The branch of astronomy and astrophysics that seeks to study of the nature, evolution, and destiny of the universe as a whole. Related to cosmology is **cosmogony**, the understanding of the origin of the universe. In a more general sense, cosmology is our worldview or perspective on the nature of the whole and our relationship to it.

**Cultural Creatives** A term coined by sociologist Paul H. Ray and psychologist Sherry Ruth Anderson to describe the segment of the population focused on innovative ideas and solutions to some of the most pressing social, ecological, economic issues today. They span all economic and political categories and tend to share common values around ecology, sustainability, social justice, and personal and societal transformation and growth.

**Dark Energy** A hypothetical form of energy that is thought to be responsible for the current acceleration of the expansion of the universe. Dark energy is thought to make up most of the mass and energy in the universe.

**Dark Matter** A proposed form of matter of unknown nature that has gravitational effects but does not emit any forms of light, hence the name ‘dark.’ At present, dark matter is thought to comprise most of the matter in the universe and may be composed of exotic particles or something even stranger.

**New Cosmology** Also called the New Story, the Universe Story, the Epic of Evolution, and the Great Story, the New Cosmology is a science-based narrative of the history of the universe presented in a meaningful and empowering way. This approach has been widely embraced by both religious and secular thinkers as a modern creation story that both situates and enhances traditional cultural and religious creation accounts.

**Paradigm** The philosophical, conceptual, and theoretical frameworks that make up a particular view of reality. Paradigms often represent the collective worldviews of the practitioners within a discipline and offer guidelines as to what can be studied and how within that discipline.

**Quantum Physics** The branch of physics that studies the nature and behavior of matter and energy at very small scales (the sizes of molecules and smaller). Many of the phenomena of quantum physics seem paradoxical or nonsensical to our everyday ways of thinking about the world, but they are supported by a great deal of mathematical rigor and scientific evidence.

**Worldview** A comprehensive perspective of the world. In the context of this book it refers to the collection of concepts, beliefs, assumptions, and ways of seeing reality and

one's relationship to it. The philosophical and theoretical framework within a discipline is known as a paradigm.

Suggestions or Feedback:

If you have suggestions or feedback on how to expand or improve this study guide, or if you've found it helpful in forming your own cosmic conversations groups, please feel free to contact the author Stephan Martin, at [smartin@copper.net](mailto:smartin@copper.net), or through the Cosmic Conversations webpage at: [www.cosmicconversations.org](http://www.cosmicconversations.org).