Leaders and Influentials Talk About THE INTENTION EXPERIMENT

"Our thoughts and intentions help shape the world out there. . . . The Intention Experiment shows why."

—Larry Dossey, M.D., author of The Extraordinary Healing Power of Ordinary Things

"Lynne McTaggart has zeroed in on a wonderful collection of experiments and events that shatters our normal materialistic assumptions of time, space, and everything in between (if there *is* an in-between). It's as mind-bending as it's meant to be."

—William Arntz, producer, writer, director of What the BLEEP Do We Know!? DVD, and author

"Very few books are able to transform information into inspiration—concepts into action—word into deed. *The Intention Experiment* does exactly that. In a style that is highly entertaining and accessible, McTaggart reminds us of an eternal truth too often overlooked: *Each of us possesses the power of the Universe WITHIN*. Now that is a transformational read!"

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"In *The Intention Experiment,* McTaggart has accomplished the remarkable task of explaining the science of intention with clarity and precision. This book is a must for everyone interested in advancing the creative abilities of his or her own consciousness."

—Caroline Myss, author of Entering the Castle and Invisible Acts of Power

"The Intention Experiment contains the leading evidence for really understanding the true potential that lies within each one of us. If you are truly interested in manifesting abundance and learning the true power you possess, read it now."

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"A remarkable synthesis of science and spirituality melded into a powerful new view of the universe! Thanks to her impeccable journalistic skills, and driven by a relentless search for the truth, Lynne McTaggart has shed new light on the true meaning of life's connectedness. Her work has had an unprecedented impact on the way everyday people think of themselves in the world. In doing so, the divide between our timeless spiritual traditions and leading-edge science has given way to a powerful new wisdom based in unity."

-Gregg Braden, author of The Divine Matrix

"Lynne is my twin soul. . . . We are strongly connected on some resonance field."

-Masaru Emoto, author of The Hidden Messages from Water

—Bruce H. Lipton, Ph.D., cell biologist and author of *The Biology of Belief: Unleashing the Power of Consciousness, Matter and Miracles*

"I absolutely agree with Lynne McTaggart that your thoughts radiate out like a shining star, affecting everyone in your path. Become a positive, beautiful, glimmering, blissful being of light. Read this book. You'll be gratefully happy."

—Dharma Singh Khalsa, M.D., Associate Fellow, Center for Spirituality and the Mind, University of Pennsylvania School of Medicine

"Quantum physicists, myself included, have been predicting for some time that our intentions are powerful when made in the context of nonlocal consciousness. In this book Lynne McTaggart demonstrates this with empirical data. It will convince you of the power of intention and the power of nonlocal consciousness. A very important book for the aborning science within consciousness."

—Amit Goswami, Professor of Physics Emeritus, University of Oregon, and author of *The Self-Aware Universe* and *The Quantum Doctor*

"The Intention Experiment should be read by everyone so that minds may be opened to the true nature of life. From my personal experience with a past life, a near-death experience, communication with dead family members, patients, and animals, and from my experience with patients' dreams and drawings revealing the past, present, and future, I know consciousness is nonlocal. When we explore consciousness and the unconscious, as McTaggart's work reveals, we are truly exploring inner space, where more exciting future discoveries exist than in outer space."

—Bernie Siegel, M.D., author of Love, Medicine & Miracles and Help Me to Heal

"McTaggart has a dazzling genius for bringing together cutting-edge research in the field of quantum physics in a stunningly direct, accessible way. She inspires us to look deeply into the mystery of life to understand the very nature of consciousness and the powerful effect that intention has on matter, manifestation, and life itself. *The Intention Experiment* is not just a fascinating read; it's an exciting invitation to begin your own experiment to experience directly the profound influence intention has in your life. I can't wait to see the results."

-Brandon Bays, author of *The Journey* and *Freedom Is*

"While Darwinists are dancing around randomness, their 'golden calf,' McTaggart opens the door for people who 'believe the unbelievable.' Her encouraging experiments and brave ideas provide an evolutionary new hope for mankind."

—Fritz-Albert Popp

"This valuable, far-reaching book brings together a large body of research and formulates an original way of taking the field forward by means of large-scale experiments. It shows that the power of directed thought is vital to our collective future."

—David Lorimer, editor of *Thinking Beyond the Brain* and *Science, Consciousness and Ultimate Reality*

"An amazingly concise, marvelously detailed excursion into the subtle, bigger picture of interconnected consciousness, human and otherwise. The daring exclamation 'Wow!' seems entirely appropriate."

-Ingo Swann, consciousness researcher and author of Natural ESP

"The Intention Experiment is a brave, intelligent investigation of scientific heresies and the visionaries who have discovered them. Revolutionary ideas, like those found in this book, not only redefine our understanding of reality, but also help human beings create a new—and better—reality."

—Timothy Freke, co-author of *The Jesus Mysteries* and stand-up philosopher

"Lynne McTaggart has managed to both synthesize the evidence about consciousness into a new science and offer readers a means to push the scientific envelope even further. This classic in the making promises to change the world forever."

—Uri Geller

"Lynne has done it again—an easy-to-read, comprehensive overview of the best research on how our intention can affect our lives and the world around us. Thank you, Lynne."

—Barbara Brennan, author of Hands of Light

"An extraordinary and courageous work, *The Intention Experiment* shatters the oppressive illusion that we are in control of nothing. It empowers us, individually and collectively, to take back our lives, our world. It removes us from the world of 'I can't' and 'I shouldn't,' and flings us headlong into a new language of opportunity; a new outlook and paradigm of 'I can' and 'I will.' It is a must-read for all who accept that something extraordinary is possible in our lives."

—David Morehouse, author of *Psychic Warrior*

-Richard Moss, M.D., author of The Mandala of Being

"The best synthesis and overview yet of the science showing that we are interconnected with each other, our planet, and the universe itself, at a deep and fundamental level. McTaggart makes it clear that our beliefs, emotions, and actions are influencing our world all the time and calls for new conscious intention in facilitating the transformation in consciousness the planet is currently experiencing."

—Rollin McCraty, Ph.D., Executive Vice President and Director of Research, Institute of HeartMath

"I highly recommend *The Intention Experiment*. Within its pages is evidence for that which students of the consciousness movement have long suspected: that there is an interconnectedness associated with all of Creation; that our thoughts and our intentions shape the world we collectively experience; that we cannot help but impact the people and events in our lives; and, perhaps most mind-boggling of all, we possess a co-creative capacity that is perhaps the very birthright bestowed upon us by the Creator of all things."

—Kevin J. Todeschi, Executive Director and CEO, Edgar Cayce's A.R.E. / Atlantic University

"Every now and then a person taps into the zeitgeist of an age, the evolutionary edge of human consciousness and understanding. *The Intention Experiment* not only explains the scientific basis of our spiritual insights, it empowers us to take responsibility for our thoughts, for our very consciousness, knowing that we truly are co-creators with the Field itself. Highly recommended!"

-Barbara Marx Hubbard, President, Foundation for Conscious Evolution

"The Intention Experiment is an exciting lay-oriented compendium of the most powerful research of recent decades, carried out by frontier scientists, that validates and provides personal exercises to demonstrate how our thoughts can influence reality."

—Edgar Mitchell, Sc.D., Founder, Institute of Noetic Sciences; Apollo 14 astronaut

"Lynne McTaggart enters into the mind of frontier scientists in ways that inform, illuminate, and even dazzle those of us who need help charting a course through complex scientific research. *The Intention Experiment* leaves you with palpable excitement that we are about to cross the next threshold, where the power of our deepest intentions will be reflected in the design of evolution itself."

-James O'Dea, President, Institute of Noetic Sciences

"The secrets are no longer a secret after you read this beautifully written book. Lynne walks you through each step and takes the mystery out of creating change in your life and the world through intention."

-Linda Evans

"Lynne McTaggart's work is a powerful, inspiring gift to all of humanity. At the heart of it is the importance of the power of thought. I highly recommend her work to anyone who wants to harness the power of the mind."

—Gary Renard, bestselling author of *The Disappearance* of the Universe and Your Immortal Reality

"This brilliant, practical book distills the core message of the great wisdom traditions and weds it to modern science. Our intentions can change the world and [McTaggart] tells you *exactly* how to do it. Reading this book and applying the time-tested practices give us the hope and the means for changing our world."

—Joan Borysenko, Ph.D., co-author of Your Soul's Compass: What Is Spiritual Guidance?

"McTaggart's work expands our collective worldview way beyond the stagnant sciences mired in materialism to the startling and utterly true realms of interconnected, subtle energetic fields teeming with life and mind-at-large. Her books are sensitizing, revolutionary, and profoundly important."

—Alex Grey, artist, author, and cofounder of the Chapel of Sacred Mirrors

"The Intention Experiment is an exciting piece of investigation in which everyone can participate. If there is a field of energy and consciousness that permeates all life, then the human mind working with imagination and feeling can both influence and be influenced by it. Get involved with this experiment. It could change your life and others' for the better."

-William Bloom

"[The author] takes an exhaustive look at studies in quantum physics, geomagnetics, and sports psychology on one hand, and prayer, meditation, and distance healing on the other. . . . Ambitious."

—Body + Soul

"We're all involved in our own healing and evolution through a continuous exchange of energy, light, and information. Lynne gives us clear insight into this state, including how to bring healing to ourselves . . . and to others! She also offers a unique opportunity to participate in research that will open many new doors for understanding healing and our relationship with the universe. I'm impressed."

-Dr. Eric Pearl, author of The Reconnection: Heal Others, Heal Yourself

Also by Lynne McTaggart

The Field:
The Quest for the Secret Force of the Universe

What Doctors Don't Tell You: The Truth About the Dangers of Modern Medicine (updated 2005)

Kathleen Kennedy:

Her Life and Times

The Baby Brokers: The Marketing of White Babies in America

THE INTENTION EXPERIMENT

USING YOUR THOUGHTS
TO CHANGE YOUR LIFE AND THE WORLD

Lynne McTaggart

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CONTENTS

Preface	XV
Introduction	xxi
PART I	
THE SCIENCE OF INTENTION	
Chapter 1: Mutable Matter	3
Chapter 2: The Human Antenna	19
Chapter 3: The Two-Way Street	35
Chapter 4: Hearts That Beat as One	47
PART II	
POWERING UP	
Chapter 5: Entering Hyperspace	65
Chapter 6: In the Mood	83
Chapter 7: The Right Time	99
Chapter 8: The Right Place	113
PART III	
THE POWER OF YOUR THOUGHTS	
Chapter 9: Mental Blueprints	127
Chapter 10: The Voodoo Effect	145
*	

Contents

Chapter 11: Praying for Yesterday	161
Chapter 12: The Intention Experiment	177
PART IV	
THE EXPERIMENTS	
Chapter 13: The Intention Exercises	199
Chapter 14: Your Personal Intention Experiments	213
Chapter 15: The Group Intention Experiments	217
Afterword: Thoughts Heard 'Round the World:	
The First Intention Experiments	221
Acknowledgments	235
Notes	237
Bibliography	264
Index	287
About the Author	304

God is afoot, magic is alive
. . . magic never died
—Leonard Cohen,
"God Is Alive, Magic Is Afoot"

PREFACE

This book represents a piece of unfinished business that began in 2001 when I published a book called *The Field.* In the course of trying to find a scientific explanation for homeopathy and spiritual healing, I had inadvertently uncovered the makings of a new science.

During my research, I stumbled across a band of frontier scientists who had spent many years reexamining quantum physics and its extraordinary implications. Some had resurrected certain equations regarded as superfluous in standard quantum physics. These equations, which stood for the Zero Point Field, concerned the extraordinary quantum field generated by the endless passing back and forth of energy between all subatomic particles. The existence of the Field implies that all matter in the universe is connected on the subatomic level through a constant dance of quantum energy exchange.

Other evidence demonstrated that, on the most basic level, each one of us is also a packet of pulsating energy constantly interacting with this vast energy sea.

But the most heretical evidence of all concerned the role of consciousness. The well-designed experiments conducted by these scientists suggested that consciousness is a substance outside the confines of our bodies—a highly ordered energy with the capacity to change physical matter. Directing thoughts at a target seemed capable of altering machines, cells, and, indeed, entire multicelled organisms like human beings. This mind-overmatter power even seemed to traverse time and space.

In *The Field* I aimed to make sense of all the ideas resulting from these disparate experiments and to synthesize them into one generalized theory. *The Field* created a picture of an interconnected universe and a scientific explanation for many of the most profound human mysteries, from alternative medicine and spiritual healing to extrasensory perception and the collective unconscious.

The Field apparently hit a nerve. I received hundreds of letters from readers who told me that the book had changed their lives. A writer wanted to depict me as a character in her novel. Two composers wrote musical compositions inspired by it, one of which played on the international stage. I was featured in a movie, What the Bleep!? Down the Rabbit Hole, and on the What The Bleep Do We Know!? Calendar, released by the film's producers. Quotations from The Field became the centerpiece of a printed Christmas card.

However gratifying this reaction, I felt that my own journey of discovery had hardly left the station platform. The scientific evidence I had amassed for *The Field* suggested something extraordinary and even disturbing: directed thought had some sort of central participatory role in creating reality.

Targeting your thoughts—or what scientists ponderously refer to as "intention" and "intentionality"—appeared to produce an energy potent enough to change physical reality. A simple thought seemed to have the power to change our world.

After writing *The Field*, I puzzled over the extent of this power and the numerous questions it raised. How, for instance, could I translate what had been confirmed in the laboratory for use in the world that I lived in? Could I stand in the middle of a railroad and, Superman-style, stop the 9:45 Metroliner with my thoughts? Could I fly myself up to fix my roof with a bit of directed thought? Would it now be possible to cross doctors and healers off my list of essential contacts, seeing as I might now be able to think myself well? Could I help my children pass their math tests just by thinking about it? If linear time and three-dimensional space didn't really exist, could I go back and erase all those moments in my life that had left me with lasting regret? And could my one puny bit of mental input do anything to change the vast catalog of suffering on the planet?

The implications of this evidence were unsettling. Should we be minding every last thought at every moment? Was a pessimist's view of the world likely to be a self-fulfilling prophecy? Were all those negative thoughts—that ongoing inner dialogue of judgment and criticism—having any effect outside our heads?

Were there conditions that improved your chances of having a better effect with your thoughts? Would a thought work any old time or would you, your intended target, and indeed the universe itself have to be in the

mood? If everything is affecting everything else at every moment, doesn't that counteract and thereby nullify any real effect?

What happens when a number of people think the same thought at the same time? Would that have an even larger effect than thoughts generated singly? Was there a threshold size that a group of like-minded intenders had to reach in order to exert the most powerful effect? Was an intention "dose dependent"—the larger the group, the larger the effect?

An enormous body of literature, starting with *Think and Grow Rich*, by Napoleon Hill, arguably the first self-actualization guru, has been generated about the power of thought. *Intention* has become the latest new age buzzword. Practitioners of alternative medicine speak of helping patients heal "with intention." Even Jane Fonda writes about raising children "with intention."

What on Earth, I wondered, was meant by "intention"? And how exactly can one become an efficient "intender"? The bulk of the popular material had been written off the cuff—a smattering of Eastern philosophy here, a soupçon of Dale Carnegie there—with very little scientific evidence that it worked.

To find answers to all these questions, I turned, once again, to science, scouring the scientific literature for studies on distant healing or other forms of psychokinesis, or mind over matter. I sought out international scientists who experimented with how thoughts can affect matter. The science described in *The Field* had been carried out mainly in the 1970s; I examined more recent discoveries in quantum physics for further clues.

I also turned to those people who had managed to master intention and who could perform the extraordinary—spiritual healers, Buddhist monks, Qigong masters, shamans—to be able to understand the transformational processes they underwent to be able to use their thoughts to powerful effect. I uncovered myriad ways that intention is used in real life—in sports, for instance, and during healing modalities such as biofeedback. I studied how native populations incorporated directed thought into their daily rituals.

I then began to dig up evidence that multiple minds trained on the same target magnified the effect produced by an individual. The evidence was tantalizing, mostly gathered by the Transcendental Meditation organization, suggesting that a group of like-minded thoughts created some sort of order in the otherwise random Zero Point Field.

At that point in my journey, I ran out of pavement. All that stretched before me, as far as I could tell, was uninhabited open terrain.

Then one evening, my husband, Bryan, a natural entrepreneur in most situations, put forward what seemed to be a preposterous suggestion: "Why don't you do some group experiments yourself?"

I am not a physicist. I am not any kind of scientist. The last experiment I had conducted had been in a tenth-grade science lab.

What I did have, though, was a resource available to few scientists: a potentially huge experimental body. Group intention experiments are extraordinarily difficult to perform in an ordinary laboratory. A researcher would need to recruit thousands of participants. How would he find them? Where would he put them? How would he get them all to think the same thing at the same time?

A book's readers offer an ideal self-selected group of like-minded souls who might be willing to participate in testing out an idea. Indeed, I already had my own large population of regular readers with whom I communicated through e-news and my other spin-off activities from *The Field*.

I first broached the idea of carrying out my own experiment with dean emeritus of the Princeton University School of Engineering Robert Jahn and his colleague, psychologist Brenda Dunne, who run the Princeton Engineering Anomalies Research (PEAR) laboratory, both of whom I had gotten to know through my research for *The Field*. Jahn and Dunne have spent some thirty years painstakingly amassing some of the most convincing evidence about the power of directed intention to affect machinery. They are absolute sticklers for scientific method, no-nonsense and to the point. Robert Jahn is one of the few people I have ever met who speak in perfect, complete sentences. Brenda Dunne is equally perfectionist about detail in both experiment and language. I would be assured of no sloppy protocol in my experiments if Jahn and Dunne agreed to be involved.

The two of them also have a vast array of scientists at their disposal. They head the International Consciousness Research Laboratory, many of whose members are among the most prestigious scientists performing consciousness research in the world. Dunne also runs PEARTree, a group of young scientists interested in consciousness research.

Jahn and Dunne immediately warmed to the idea. We met on numerous occasions and kicked around some possibilities. Eventually, they put forward Fritz-Albert Popp, assistant director of the International Institute of Biophysics (IIB) in Neuss, Germany, to conduct the first intention experiments. I knew Fritz Popp through my research for *The Field*. He was the first to discover that all living things emit a tiny current of light. As a noted

German physicist recognized internationally for his discoveries, Popp would also be a stickler for strict scientific method.

Other scientists, such as psychologist Gary Schwartz of the Biofield Center at the University of Arizona, Marilyn Schlitz, vice president for research and education at the Institute of Noetic Sciences, Dean Radin, IONS' senior scientist, and psychologist Roger Nelson of the Global Consciousness Project, have also offered to participate.

I do not have any hidden sponsors of this project. The website and all our experiments will be funded by the proceeds of this book or grants, now and in the future.

Scientists involved in experimental research often cannot venture beyond their findings to consider the implications of what they have uncovered. Consequently, when assembling the evidence that already exists about intention, I have tried to consider the larger implications of this work and to synthesize these individual discoveries into a coherent theory. In order to describe in words concepts that are generally depicted through mathematical equations, I have had to reach for metaphoric approximations of the truth. At times, with the help of many of the scientists involved, I have also had to engage in speculation. It is important to recognize that the conclusions arrived at in this book represent the fruits of frontier science. These ideas are a work in progress. Undoubtedly new evidence will emerge to amplify and refine these initial conclusions.

Researching the work of people at the very forefront of scientific discovery again has been a humbling experience for me. Within the unremarkable confines of a laboratory, these largely unsung men and women engage in activities that are nothing short of heroic. They risk losing grants, academic posts, and, indeed, entire careers groping alone in the dark. Most scratch around for grant money enabling them to carry on.

All advancements in science are somewhat heretical, each important new discovery partly, if not completely, negating the prevailing views of the day. To be a true explorer in science—to follow the unprejudiced lead of pure scientific inquiry—is to be unafraid to propose the unthinkable, and to prove friends, colleagues, and scientific paradigms wrong. Hidden within the cautious, neutral language of experimental data and mathematical equation is nothing less than the makings of a new world, which slowly takes shape for all the rest of us, one painstaking experiment at a time.

Lynne McTaggart

INTRODUCTION

The Intention Experiment is no ordinary book, and you are no ordinary reader. This is a book without an ending, for I intend for you to help me finish it. You are not only the audience of this book but also one of its protagonists—a primary participant in cutting-edge scientific research. You, quite simply, are about to embark on the largest mind-over-matter experiment in history.

The Intention Experiment is the first "living" book in three dimensions. The book, in a sense, is a prelude, and the "contents" carry on well beyond the time you finish the final page. In the book itself, you will discover scientific evidence about the power of your own thoughts, and you will then be able to extend beyond this information and test further possibilities through a very large, ongoing international group experiment, under the direction of some of the most well-respected international scientists in consciousness research.

Through *The Intention Experiment*'s website (www.theintentionexper iment.com), you and the rest of the readers of this book will be able to participate in remote experiments, the results of which will be posted on the site. Each of you will become a scientist at the hub of some of the most daring consciousness experiments ever conducted.

The Intention Experiment rests on an outlandish premise: thought affects physical reality. A sizable body of research exploring the nature of consciousness, carried on for more than thirty years in prestigious scientific institutions around the world, shows that thoughts are capable of affecting everything from the simplest machines to the most complex living beings. This evidence suggests that human thoughts and intentions are an actual physical "something" with the astonishing power to change our world. Every thought we have is a tangible energy with the power to transform. A thought is not only a thing; a thought is a thing that influences other things.

This central idea, that consciousness affects matter, lies at the very

heart of an irreconcilable difference between the worldview offered by classical physics—the science of the big, visible world—and that of quantum physics: the science of the world's most diminutive components. That difference concerns the very nature of matter and the ways it can be influenced to change.

All of classical physics, and indeed the rest of science, is derived from the laws of motion and gravity developed by Isaac Newton in his *Principia*, published in 1687.² Newton's laws described a universe in which all objects moved within the three-dimensional space of geometry and time according to certain fixed laws of motion. Matter was considered inviolate and self-contained, with its own fixed boundaries. Influence of any sort required something physical to be done to something else—a force or collision. Making something change basically entailed heating it, burning it, freezing it, dropping it, or giving it a good swift kick.

Newtonian laws, science's grand "rules of the game," as the celebrated physicist Richard Feynman once referred to them,³ and their central premise, that things exist independently of each other, underpin our own philosophical view of the world. We believe that all of life and its tumultuous activity carries on around us, regardless of what we do or think. We sleep easy in our beds at night, in the certainty that when we close our eyes, the universe doesn't disappear.

Nevertheless, that tidy view of the universe as a collection of isolated, well-behaved objects got dashed in the early part of the twentieth century, once the pioneers of quantum physics began peering closer into the heart of matter. The tiniest bits of the universe, those very things that make up the big, objective world, did not in any way behave themselves according to any rules that these scientists had ever known.

This outlaw behavior was encapsulated in a collection of ideas that became known as the Copenhagen Interpretation, after the place where the forceful Danish physicist Niels Bohr and his brilliant protégé, the German physicist Werner Heisenberg, formulated the likely meaning of their extraordinary mathematical discoveries. Bohr and Heisenberg realized that atoms are not little solar systems of billiard balls but something far more messy: tiny clouds of probability. Every subatomic particle is not a solid and stable thing, but exists simply as a potential of any one of its future selves—or what is known by physicists as a "superposition," or sum, of all probabilities, like a person staring at himself in a hall of mirrors.

One of their conclusions concerned the notion of "indeterminacy"—that

you can never know all there is to know about a subatomic particle all at the same time. If you discover information about where it is, for instance, you cannot work out at the same time exactly where it is going or at what speed. They spoke about a quantum particle as both a particle—a congealed, set thing—and a "wave": a big smeared-out region of space and time, any corner of which the particle may occupy. It was akin to describing a person as comprising the entire street where he lives.

Their conclusions suggested that, at its most elemental, physical matter isn't solid and stable—indeed, isn't *anything* yet. Subatomic reality resembled not the solid and reliable state of being described to us by classical science, but an ephemeral prospect of seemingly infinite options. So capricious seemed the smallest bits of nature that the first quantum physicists had to make do with a crude symbolic approximation of the truth—a mathematical range of all possibility.

At the quantum level, reality resembled unset Jell-O.

The quantum theories developed by Bohr, Heisenberg, and a host of others rocked the very foundation of the Newtonian view of matter as something discrete and self-contained. They suggested that matter, at its most fundamental, could not be divided into independently existing units and indeed could not even be fully described. Things had no meaning in isolation; they had meaning only in a web of dynamic interrelationships.

The quantum pioneers also discovered the astonishing ability of quantum particles to influence each other, despite the absence of all those usual things that physicists understand are responsible for influence, such as an exchange of force occurring at a finite velocity.

Once in contact, particles retained an eerie remote hold over each other. The actions—for instance, the magnetic orientation—of one subatomic particle instantaneously influenced the other, no matter how far they were separated.

At the subatomic level, change also resulted through dynamic shifts of energy; these little packets of vibrating energy constantly traded energy back and forth to each other via "virtual particles" like ongoing passes in a game of basketball, a ceaseless to-ing and fro-ing that gave rise to an unfathomably large basic layer of energy in the universe.⁴

Subatomic matter appeared to be involved in a continual exchange of information, causing continual refinement and subtle alteration. The universe was not a storehouse of static, separate objects, but a single organism of interconnected energy fields in a continuous state of becoming. At its

infinitesimal level, our world resembled a vast network of quantum information, with all its component parts constantly on the phone.

The only thing dissolving this little cloud of probability into something solid and measurable was the involvement of an observer. Once these scientists decided to have a closer look at a subatomic particle by taking a measurement, the subatomic entity that existed as pure potential would "collapse" into one particular state.

The implications of these early experimental findings were profound: living consciousness somehow was the influence that turned the possibility of something into something real. The moment we looked at an electron or took a measurement, *it appeared that we helped to determine its final state*. This suggested that the most essential ingredient in creating our universe is the consciousness that observes it. Several of the central figures in quantum physics argued that the universe was democratic and participatory—a joint effort between observer and observed.⁵

The observer effect in quantum experimentation gives rise to another heretical notion: that living consciousness is somehow central to this process of transforming the unconstructed quantum world into something resembling everyday reality. It suggests not only that the observer brings the observed into being, but also that nothing in the universe exists as an actual "thing" independently of our perception of it.

It implies that observation—the very involvement of consciousness—gets the Jell-O to set.

It implies that reality is not fixed, but fluid, or mutable, and hence possibly open to influence.

The idea that consciousness creates and possibly even affects the physical universe also challenges our current scientific view of consciousness, which developed from the theories of the seventeenth-century philosopher René Descartes—that mind is separate and somehow different from matter—and eventually embraced the notion that consciousness is entirely generated by the brain and remains locked up in the skull.

Most modern workaday physicists shrug their shoulders over this central conundrum: that big things are separate, but the tiny building blocks they're made up of are in instant and ceaseless communication with each other. For half a century, physicists have accepted, as though it makes perfect sense, that an electron behaving one way subatomically somehow transmutes into "classical" (that is, Newtonian) behavior once it realizes it is part of a larger whole.

In the main, scientists have stopped caring about the troublesome questions posed by quantum physics, and left unanswered by its earliest pioneers. Quantum theory works mathematically. It offers a highly successful recipe for dealing with the subatomic world. It helped to build atomic bombs and lasers, and to deconstruct the nature of the sun's radiation. Today's physicists have forgotten about the observer effect. They content themselves with their elegant equations and await the formulation of a unified Theory of Everything or the discovery of a few more dimensions beyond the ones that ordinary humans perceive, which they hope will somehow pull together all these contradictory findings into one centralized theory.

Thirty years ago, while the rest of the scientific community carried on by rote, a small band of frontier scientists at prestigious universities around the globe paused to consider the metaphysical implications of the Copenhagen Interpretation and the observer effect. If matter was mutable, and consciousness *made* matter a set something, it seemed likely that consciousness might also be able to nudge things in a particular direction.

Their investigations boiled down to a simple question: if the act of *attention* affected physical matter, what was the effect of *intention*—of deliberately attempting to make a change? In our act of participation as an observer in the quantum world, we might be not only creators, but also influencers.⁷

They began designing and carrying out experiments, testing what they gave the unwieldy label "directed remote mental influence" or "psychokinesis," or, in shorthand, "intention" or even "intentionality." A textbook definition of intention characterizes it as "a purposeful plan to perform an action, which will lead to a desired outcome," unlike a desire, which means simply focusing on an outcome, without a purposeful plan of how to achieve it. An intention was directed at the intender's own actions; it required some sort of reasoning; it required a commitment to do the intended deed. Intention implied purposefulness: an understanding of a plan of action and a planned satisfactory result. Marilyn Schlitz, vice president for research and education at the Institute of Noetic Sciences and one of the scientists engaged in the earliest investigations of remote influence, defined intention as "the projection of awareness, with purpose and efficacy, toward some object or outcome." To influence physical matter, they believed, thought had to be highly motivated and targeted.

In a series of remarkable experiments, these scientists provided evidence

that thinking certain directed thoughts could affect one's own body, inanimate objects, and virtually all manner of living things, from single-celled organisms to human beings. Two of the major figures in this tiny subgroup were former dean of engineering Robert Jahn at the Princeton Engineering Anomalies Research (PEAR) laboratory at Princeton University and his colleague Brenda Dunne, who together created a sophisticated, scholarly research program grounded in hard science. Over 25 years, Jahn and Dunne led what became a massive international effort to quantify what is referred to as "micro-psychokinesis," the effect of mind on random-event generators (REGs), which perform the electronic, twenty-first-century equivalent of a toss of a coin.

The output of these machines (the computerized equivalent of heads or tails) was controlled by a randomly alternating frequency of positive and negative pulses. Because their activity was utterly random, they produced "heads" and "tails" each roughly 50 percent of the time, according to the laws of probability. The most common configuration of the REG experiments was a computer screen randomly alternating two attractive images—say, of cowboys and Indians. Participants in the studies would be placed in front of the computers and asked to try to influence the machine to produce more of one image—more cowboys, say—then to focus on producing more images of Indians, and then to try not to influence the machine in either direction.

Over the course of more than 2.5 million trials Jahn and Dunne decisively demonstrated that human intention can influence these electronic devices in the specified direction, ¹⁰ and their results were replicated independently by 68 investigators. ¹¹

While PEAR concentrated on the effect of mind on inanimate objects and processes, many other scientists experimented with the effect of intention on living things. A number of diverse researchers demonstrated that human intention can affect an enormous variety of living systems: bacteria, yeast, algae, lice, chicks, mice, gerbils, rats, cats, and dogs. A number of these experiments have also been carried out with human targets; intention has been shown to affect many biological processes within the receiver, including gross motor movements and those in the heart, the eye, the brain, and the respiratory system.

Animals themselves proved capable of acts of effective intention. In one ingenious study by René Peoc'h of the Fondation ODIER in Nantes, France, a robotic "mother hen," constructed from a movable random-event

generator, was "imprinted" on a group of baby chicks soon after birth. The robot was placed outside the chicks' cage, where it moved around freely, as its path was tracked and recorded. Eventually, it was clear that the robot was moving toward the chicks two and a half times more often than it would ordinarily; the "inferred intention" of the chicks—their desire to be close to their mother—appeared to affect the robot, drawing it closer to the cage. Over eighty similar studies, in which a lighted candle was placed on a movable REG, baby chicks kept in the dark, finding the light comforting, managed to influence the robot to spend more time than normal in the vicinity of their cages.¹³

The largest and most persuasive body of research has been amassed by William Braud, a psychologist and the research director of the Mind Science Foundation in San Antonio, Texas, and, later, the Institute of Transpersonal Psychology. Braud and his colleagues demonstrated that human thoughts can affect the direction in which fish swim, the movement of other animals such as gerbils, and the breakdown of cells in the laboratory.¹⁴

Braud also designed some of the earliest well-controlled studies of mental influence on human beings. In one group of studies, Braud demonstrated that one person could affect the autonomic nervous system (or fightor-flight mechanisms) of another.¹⁵ Electrodermal activity (EDA) is a measure of skin resistance and shows an individual's state of stress; a change of EDA would usually occur if someone were stressed or made uncomfortable in some way.¹⁶ Braud's signature study tested the effect on EDA of being stared at, one of the simplest means of isolating the effect of remote influence on a human being. He repeatedly demonstrated that people were subconsciously aroused while they were being stared at.¹⁷

Perhaps the most frequently studied area of remote influence concerns remote healing. Some 150 studies, varying in scientific rigor, have been carried out in all, ¹⁸ and one of the best designed was conducted by the late Dr. Elisabeth Targ. During the height of the AIDS epidemic in the 1980s, she devised an ingenious, highly controlled pair of studies, in which some 40 remote healers across America were shown to improve the health of terminal AIDS patients, even though the healers had never met or been in contact with their patients.¹⁹

Even some of the most rudimentary mind-over-matter experiments have had tantalizing results. One of the first such studies involved attempts to influence a throw of dice. To date, 73 studies have examined the efforts of 2,500 people to influence more than 2.5 million throws of dice, with

extraordinary success. When all the studies were analyzed together, and allowances made for quality or selective reporting, the odds against the results' occurring by chance alone were 10⁷⁶ (1 followed by 76 zeros) to one.²⁰

There was also some provocative material about spoon bending, that perennial party trick made popular by psychic Uri Geller. John Hasted, a professor at Birkbeck College at the University of London, had tested this with an ingenious experiment involving children. Hasted suspended latchkeys from the ceiling and placed the children 3 to 10 feet away from their target key, so that they could have no physical contact. Attached to each key was a strain gauge, which would detect and register on a strip chart recorder any change in the key. Hasted then asked the children to try to bend the suspended metal. During the sessions, he observed not only the keys swaying and sometimes fracturing, but also abrupt and enormous spikes of voltage pulses up to 10 volts—the very limits of the chart recorder. Even more compelling, when children had been asked to send their intention to several keys hung separately, the individual strain recorders noted simultaneous signals, as though the keys were being affected in concert.²¹

Most intriguing, in much of the research on psychokinesis, mental influence of any variety had produced measurable effects, no matter how far the distance between the sender and the object or at what point in time he generated his intention. According to the experimental evidence, the power of thought transcended time and space.

By the time these revisionists were finished, they had torn up the rule book and scattered it to the four winds. Mind in some way appeared to be inextricably connected to matter and, indeed, was capable of altering it. Physical matter could be influenced, even irrevocably altered, not simply by force, but through the simple act of formulating a thought.

Nevertheless, the evidence from these frontier scientists left three fundamental questions unanswered. Through what physical mechanisms do thoughts affect reality? At the time of this writing, some highly publicized studies of mass prayer showed no effect. Were certain conditions and preparatory states of mind more conducive to success than others? How much power did a thought have, for good or ill? How much of our lives could a thought actually change?

Most of the initial discoveries about consciousness occurred more than thirty years ago. More recent discoveries in frontier quantum physics and in laboratories around the globe offer answers to some of those questions. They provide evidence that our world is highly malleable, open to constant

subtle influence. Recent research demonstrates that living things are constant transmitters and receivers of measurable energy. New models of consciousness portray it as an entity capable of trespassing physical boundaries of every description. *Intention appears to be something akin to a tuning fork, causing the tuning forks of other things in the universe to resonate at the same frequency.*

The latest studies of the effect of mind on matter suggest that intention has variable effects that depend on the state of the host, and the time and the place where it originates. Intention has already been employed in many quarters to cure illness, alter physical processes, and influence events. It is not a special gift but a learned skill, readily taught. Indeed, we already use intention in many aspects of our daily lives.

A body of research also suggests that the power of an intention multiplies, depending upon how many people are thinking the same thought at the same time.²²

The Intention Experiment consists of three aspects. The main body (chapters 1 through 12) attempts to synthesize all the experimental evidence that exists on intention into a coherent scientific theory of how intention works, how it can be used in your life, and which conditions optimize its effect.

The second portion of the book (chapter 13) offers a blueprint for using intention effectively in your own life through a series of exercises and recommendations for how best to "power up." This portion is also an exercise in frontier science. I am not an expert in human potential, so this is not a self-help manual, but a journey of discovery for me as well as you. I have extrapolated this program from scientific evidence describing those circumstances that created the most positive results in psychokinetic laboratory experiences. We know for certain that these techniques have generated success under controlled experimental laboratory conditions, but I cannot guarantee they will work in your life. By making use of them, you will, in effect, engage in an ongoing personal experiment.

The final section of the book consists of a series of personal and group experiments. Chapter 14 outlines a series of informal experiments on the use of intention in your own life for you to carry out individually. These mini "experiments" are also intended to be pieces of research. You will have the opportunity to post your results on our website and share them with other readers.

Besides these individual experiments, I have also designed a series of

large group experiments to be carried out by the readers of this book (chapter 15). With the aid of our highly experienced scientific team, *The Intention Experiment* will conduct periodic large-scale experiments to determine whether the focused intention of its readers has an effect on scientifically quantifiable targets.

All it requires is that you read the book, digest its contents, log on to the website (www.theintentionexperiment.com), and, after following the instructions and exercises at the back of this book, send out some highly specific thoughts, as and when described on the site. The first such studies will be carried out by the German physicist Fritz-Albert Popp, vice-president of the International Institute of Biophysics in Neuss, Germany (www.lifescientists.de), and his team of seven, and Dr. Gary Schwartz and his colleagues at the University of Arizona at Tucson, and Marilyn Schlitz and Dean Radin, of the Institute of Noetic Sciences.

Website experts have collaborated with our scientific team to design logon protocols to enable us to identify which characteristics of a group or aspects of their thoughts produce the most effective results. For each intention experiment, a target will be selected—a specific living thing or a population where change caused by group intention can be measured. We have started with algae, the lowliest of subjects (see chapter 12), and with every experiment, we will move on to an increasingly complex living target.

Our plans are ambitious: to eventually tackle a number of societal ills. One eventual human target might be patients with a wound. It is known and accepted that wounds generally heal at a particular, quantifiable rate with a precise pattern.²³ Any departure from the norm can be precisely measured and shown to be an experimental effect. In that instance, our aim would be to determine whether focused group intention will enable wounds to heal more quickly than usual.

Naturally, you don't have to participate in our experiments. If you don't wish to get involved, you can read about the intention experiments of others, and use some of that information to inform how you use intention in your life.

Please do not casually participate in the experiments. In order for the experiment to work properly, it's a good idea to read the book and digest its contents fully beforehand. The experimental evidence suggests that those who are the most effective have trained their minds, much as athletes train their muscles, to maximize their chances of success.

In order to discourage uncommitted participation, The Intention

Experiment website may at times contain a complicated password comprising some words or ideas from the book (which will change slightly every few months). In order to be part of certain experiments, you will have to log on with the password and you will have to have read the book and understood it.

The website (www.theintentionexperiment.com) has a running clock (set to U.S. Eastern Standard Time and Greenwich Mean Time). At a particular moment on a date specified on the website, you will be asked to send a carefully worded, detailed intention, depending on the target site.

Once the experiments are finished, the results will be analyzed and datacrunched by our scientific team, examined by a neutral statistician, and then published on the website and in subsequent printings of this book. The website will thus become the living sequel to the book you are holding in your hands. You simply need to consult the website periodically for announcements of the date of every experiment.

Hundreds of well-designed studies of group intention and remote mental influence have demonstrated significant results. Nevertheless, it might be the case that some of our experiments will not produce demonstrable, measurable effects, at first or indeed ever. As reputable scientists and objective researchers, we are duty-bound to report the data we have. As with all science, failure is instructive, helping us to refine the design of the experiment and the premises that they are based upon.

As you read this book, keep in mind that this is a work of frontier science. Science is a relentless process of self-correction. Assumptions originally considered as fact must often ultimately be discarded. Many—indeed, most—of the conclusions drawn in this book are bound to be amended or refined at a later date.

By reading this book and participating in its experiments you may well contribute to the world's knowledge, and possibly further a paradigm shift in our understanding of how the world works. Indeed, the power of mass intention may ultimately be the force that shifts the tide toward repair and renewal of the planet. When combined with hundreds of thousands of others, your solitary voice, now one barely audible note, could transmute into a thunderous symphony.

My own motive for writing *The Intention Experiment* was to make a statement about the extraordinary nature and power of consciousness. It may prove true that a single collective directed thought is all it takes to change the world.

PART I

THE SCIENCE OF INTENTION

A human being is part of the whole, called by us "universe," a part limited in time and space. He experiences himself, his thoughts and feelings as something separated from the rest—a kind of optical delusion of his consciousness.

ALBERT EINSTEIN