INTRODUCTION

When people ask me why I decided to write this book, I have a simple answer: I want to change the world. I want to help all people, especially parents, educators, and children, achieve their dreams through the power of creativity. This book fulfills a dream I have had my entire adult life. To me creativity isn't just a topic of research; it saved my life.

I was born in a South Korean mountain village and lived in Korea until I was thirty-three. Much of my Korean life was miserable, as I tried to live according to Confucian principles (the roots of East Asian culture), which trampled my desire for self-expression. However, an ember of my creativity survived thanks to my mother, one teacher, and one deliberate act of kindness that showed me glimpses of my creative future.

Approximately thirty minutes by truck from my home, on the very top of Palgong Mountain, there were two separate military bases: one American and one South Korean. Palgong Mountain always received a thin blanket of snow before our village did. The white powder was still there long after all of the snow in my village melted. I felt sorry for the soldiers who lived on the cold peak. The Korean soldiers' families lived close to my home and, in my eyes, these families were rich far beyond my imagination. The children in my village, including my siblings and me, were dirty and had lice in our hair. We could take baths only in the summer when we were able to swim in the streams and rivers. The military children bathed even in the winter, and their hair smelled like flowers. Some said the military children had bathtubs in their rooms, but I didn't believe them because I thought it would be strange to have that much water inside.

I didn't know where the American soldiers' families lived. I heard from my teachers that they lived on the other side of the earth, but I couldn't imagine where that was. The farthest places I could imagine were China and Japan. I didn't understand why the US soldiers would want to be on top of Palgong Mountain, in the cold and without their families.

One of my first memories of the US soldiers was when I was three. All of the little children in my village ran, cheering, behind military trucks that

were driving up the dirt road toward their base. We tumbled and wrestled in the dust to catch the delicious caramel candies the soldiers showered down upon us. The caramels were soft and chewy; they stuck to my teeth while I ate them, and the taste stayed on my lips all afternoon. That was the first caramel candy I experienced in my life. We always had plenty of sweet fruits from the farms nearby, but there was nothing like caramel candy in my village.

There were 210 students in my middle-school class, but we spent most of our time divided into three separate groups of seventy students each. My elementary school was a ten-minute walk from home, but my middle school required an entire hour-long walk each way. Both public schools were for children who lived in the tiny villages on different mountains. In Korea at that time, teachers could earn extra points by teaching in remote places in order to become school administrators. Thus, most of the teachers in my schools were ambitious and energetic males who had a goal of becoming a principal by the time they reached their midfifties. These teachers were trained to educate the students and their parents by visiting their homes and instilling a vision and an understanding of what education and modernity could lead to; they were there to inspire us.

In December 1978, at the end of my first year of middle school, my homeroom teacher announced that I had received the highest grades in the class of 210 students. He told me that the US soldiers would visit our school to give a scholarship to me and a boy whose scores put him in second place. I had no idea what a scholarship was, and as the teacher was explaining this, a green US military Jeep with an American flag on its antenna drove into the schoolyard. Right behind it, a huge truck pulled in with four Ping-Pong tables in the back. All the boys in the school were ecstatic; they jumped up from their chairs and ran outside, shouting with excitement.

I was escorted into the principal's office to greet three US soldiers who arrived in the Jeep. They towered over us in their green uniforms, with their fancy buttons and gleaming smiles. Their skin looked so white to me—like lights. Their hands looked huge and hairy. They handed me an envelope with money in it, and they also gave one to the boy. I was shocked—why would powerful, huge superhuman beings like these Americans give anything to us? (No Korean people ever gave scholarships to my schools.) At that time, I could only imagine what we looked like to them. My face and clothes were filthy and smeared with mud, and my hair was matted. I had

watched the lice on other children's heads and knew they crawled out of my hair too—fat and lazy from feeding on my blood.

Our English teacher pointed and told us to look over at one of the soldiers so that he could take our picture. As soon as we turned our heads, there was a big flash of light like lightning. There was a whirring sound and then, remarkably, a picture popped out of the little box. I had heard about cameras before but didn't know there was a camera that developed pictures right away. It was like magic! The boy looked at me with big eyes, and I looked at him with even bigger eyes. That was the first photograph I had ever seen in my life. Unfortunately, it faded over time—I thought I wore out the image by looking at it too often. I kept it in a special box and looked at it again and again, even after the image was gone.

After the US soldiers left the school, there were many changes, especially among the boys. They came to school early every day to play Ping-Pong before and after classes. They started studying because they realized that getting good grades could result in receiving money and Ping-Pong tables. The boy who got the other scholarship eventually went to the best military college and has been working at the Blue House, the home of the president of South Korea. He was inspired and had a vision of becoming like the US soldiers who had given us scholarships and Ping-Pong tables.

The experience was a life-changing event for me too. My parents invested all of the scholarship money—about $300 at that time—to improve my academic opportunities. They bought things for me that I had never imagined owning. They purchased an almost-new bicycle so that I didn't have to waste two hours a day walking to school. The extra time I gained would enable me to study longer each day. All of the villagers smiled and waved as I rode by, because they knew that the bicycle had been purchased with scholarship money. Next, my parents bought me a single bed and mattress so that I could sleep better and learn better. Normally, Koreans would sleep on their floors with thick blankets. From then on, I slept in my bed above the floor. That wasn't all. My parents also bought a cassette player, English cassettes, and English textbooks so I could learn to *speak* English better. With the leftover money, they bought five little pigs. We sold the pigs' babies countless times to pay for high-school tuition.

I don't think the US soldiers had any idea how much their gifts inspired my whole village. My teachers started encouraging me to study even harder to escape the poverty of my village so that someday I could

help more people like me. I became attuned to other examples from the news and history that showed how noble passions can improve everyday life. Today, each time I guide a student, a teacher, a parent, or anyone, I've made a difference.

However, even as I became inspired and empowered to succeed *academically*, I struggled to envision my future *identity*. When I was little, people complained that I was too curious. Even in graduate school, I wasn't allowed to ask so many questions, because it was considered disrespectful to teachers or professors. I was different from other Korean women—a square peg in a round hole. When I became a teacher, I liked students who asked a lot of unexpected or unusual questions, even *troublemakers*. But my preference for those kinds of questions conflicted with Confucian principles. It took me a long time to understand the conflict between cultural values and creativity. It was only after I moved to America and studied creativity that I realized why the conflict existed.

After teaching English for ten years, I escaped from Korea with my two small children (ages four and nine). Every day was a tragicomedy of adventure, discovery, and improvisation. I struggled to raise my children in a very different environment than I was raised in. I made many mistakes as I discovered new approaches to foster their creativity. For this reason, I want to share my experience and research with those who face similar challenges and share similar desires.

I've spent my adult years studying creativity and innovators. For years I've researched and written extensively on various aspects of creativity for a specialized academic audience. This book, however, is about much more than just statistics and analysis. It is about surprising influences and factors in innovators' lives that everybody can understand and use to encourage creativity to flourish. I have developed three practical steps that produce innovation. The steps are:

Step 1: Cultivate Creative Climates
Step 2: Nurture Creative Attitudes
Step 3: Apply Creative-Thinking Skills

The Creativity Challenge is designed to empower three groups of people with skills and tools for creativity: parents and educators, organizations, and creative adults and students.

For parents and educators: The primary group this book is designed for is parents and educators. Although they can't control what children achieve, they *can* control many inputs for children's creative climates and creative attitudes. The development of creativity in individuals varies. My more than twenty years of creativity research suggests that this variation is due to differences in individuals' life experiences, not their inborn abilities/talents or even IQ. I look closely at how parents and educators cultivate creative climates and nurture creative attitudes in children and how children apply creative-thinking skills. My extensive research is coupled with real-world examples that are easy to integrate into the plans and efforts parents and educators already make. They can help academic achievers become innovators. They can also help turn troublemakers around by understanding similar disruptive or distracted behaviors in the early lives of the innovators: Albert Einstein, Steve Jobs, Nelson Mandela, Georgia O'Keeffe, and Marie Curie.

For organizations including schools, governments, and businesses: This book provides background and courses of action to make organizations more efficient, effective, and capable of developing unique and useful ideas, services, or products.

For adults and students studying creativity or facing their own creativity challenges: I've used drafts of this book in my graduate courses. It's been successful for my students to understand creativity and improve their own. This book also provides insights and steps for individuals who want or need to break writers' block, pursue an artistic vision, fulfill their entrepreneurial dream, break out of a square-peg life, or simply move out of their parents' basement. It shows how they can improve their creativity by finding and/or growing an interest and turning it into a passion.

Helping individuals reach their full creative potential is very much like growing plants. I use original gardening metaphors to show the steps to innovation by cultivating creative climates, nurturing creative attitudes, and applying creative-thinking skills.

This book consists of four parts:

PART 1: WHAT IS CREATIVITY?

Chapter 1, "The Creativity Crisis," describes my research into what I have dubbed America's "creativity crisis," which spurred an explosive *Newsweek* cover story in 2010. This research has gained notoriety in the media because it revealed that American creativity has been declining since 1990. A brief description of the results of the study; the causes of, reactions to, and consequences of the creativity crisis; and the trend of American education *toward* test-centric climates—*against* creative climates—are presented.

Chapter 2,"The Creativity Solution," reveals the nature of creativity and presents my creative CATs (climate, attitude, and thinking skills) to achieve innovation. It starts with cultivating creative climates that nurture creative attitudes that enable creative-thinking skills, which are then applied to achieve innovation.

PART 2: WHAT ARE CREATIVE CLIMATES AND ATTITUDES?

Because I was raised in a farming village, I know what makes plants grow strong and productive: diverse soil, bright sun, fierce storms, and free space. Similarly, what I call "4S" climates are needed for children's creativity to flourish: Diverse resources and experiences (soil), inspiration and encouragement (sun), high expectations and challenges (storms), and freedom to be alone and unique (space). These climates emerged from my syntheses and factor-analyses of empirical creativity studies and great innovators' life stories.

In chapters 3 through 6, each chapter starts with an introduction about an early-life story of an innovator and how his or her early creative climates nurtured his or her creative attitudes and creative-thinking skills. In each chapter, step 1 shows research findings about how to cultivate creative climates:

Chapter 3, "The Soil Climate That Nurtures the Soil Attitudes": This chapter features Albert Einstein, who changed the way we see the universe; and it shows how parents and teachers of innovators (PTIs) cultivate the soil climates (diverse resources and experiences).

Chapter 4, "The Sun Climate That Nurtures the Sun Attitudes": Here

we learn about Apple cofounder Steve Jobs, who made computers a part of everyday human experience; and how PTIs cultivate the sun climates (inspiration and encouragement).

Chapter 5, "The Storm Climate That Nurtures the Storm Attitudes": In this chapter we meet Nelson Mandela, who created democratic South Africa from a community that existed only in his imagination; and we see how PTIs cultivate the storm climates (high expectations and challenges).

Chapter 6, "The Space Climate That Nurtures the Space Attitudes": Here we study Georgia O'Keefe, who separated American modernism from imitative European art and pioneered a woman's artistic career in a man's world; and we see how PTIs cultivate the space climates (freedom to be alone and unique).

In chapters 3 through 6, step 2 is about nurturing creative attitudes: Step 2 starts with a brief anecdote from my life, illustrating how my own creative attitudes were encouraged or discouraged, or how I encouraged or discouraged these attitudes within my children. Then I summarize what research says about each of the attitudes and how each can contribute to creative-thinking skills. Finally, the end of each chapter presents examples from the innovators' lives to show how each of the attitudes seems negative.

PART 3: HOW DO CULTURAL CLIMATES AFFECT CREATIVITY?

Chapter 7, "Are Men Really More Creative Than Women Are?" shows the impact of gender bias on women's creativity. I use the life stories of Marie Curie (the first woman to win a Nobel Prize) and Mileva Marić (Albert Einstein's first wife) to understand its complexities and impacts. I compare how Curie's 4S climates nurtured her creativity and how Marić's patriarchal climates stifled her creativity. This can explain why Curie won two Nobel prizes while Marić's creativity was trampled, despite the fact that both were bright and rare female physicists with high creative potentials and early achievements.

Chapter 8, "Are Jews Really More Creative Than Asians Are?" explores how parenting/teaching in different cultures impacts creativity. I consider two specific parenting/teaching styles: Confucian (including "tiger-mother" parenting) and Jewish. I show how Confucian 4P parenting/

teaching affects Asians' creativity and how Jewish 4S parenting/teaching influences Jews' creativity. The differences between the two parenting/teaching styles explain why Jews have won a Nobel Prize 625 times more than Asians have.

PART 4: WHAT ARE CREATIVE-THINKING SKILLS?

Chapter 9, "ION Thinking Skills (Inbox, Outbox, and Newbox) within the ACP (Apple-Tree Creative Process),": focuses on creative process and creative-thinking skills. I present my Apple-tree Creative Process (ACP) that consists of four seasons (with eight stages):

1. Winter (stage 1: expertise development; and stage 2: needs identification)
2. Spring (stage 3: idea generation; stage 4: subconscious processing; and stage 5: idea evaluation)
3. Summer (stage 6: synthesis; and stage 7: transformation); and
4. Autumn (stage 8: promotion). I also present my ION thinking skills: inbox, outbox, and newbox. Both ACP and ION thinking skills emerged from my extensive analyses of creativity-test scores and empirical studies and theories of creativity and intelligence.

I believe this book can reverse the creativity crisis and recapture American innovation.