

1. (Quiet library setting)

Hello. I'm Joel Barker and I am about to tell you a tale, a tale is about wealth, innovation and diversity. Now, as soon as you hear the word "diversity" you may find yourself wondering: What does a 55 year old white male know about diversity? That's a good question. I hope you will find that I have an equally good answer. You see, about eight years ago I began doing research on the creation of new wealth and its relationship to innovation. At that time, I had no interest in questions about diversity. But in the course of my research I made a startling discovery about diversity. And the more I explored, the more powerful that discovery became. I am going to share with you what I found. And I am willing to bet you will find it significant on many levels of your life. When this tale is done, you will find yourself confronting a very important choice. One so important that it will help determine the direction of the 21st century.

2. (Ireland deserted farm)

We begin with two stories from two different sides of the world. The first is the recitation of a tragedy. It occurred in the mid-1800s on this emerald isle that is Ireland. When the potato was brought back from the New World, the Irish embraced it and steadily built more and more of their food resources around this cheap and plentiful tuber. But, while they were doing this, they also made a horrific mistake. Slowly but surely, over two centuries of growing potatoes, they bred out all the differences, so that, in the end, almost their entire potato crop had the same genetic makeup. In 1845, the Potato Blight struck. And since all the potatoes were essentially identical, they were all equally vulnerable. The blight wiped out the entire crop for two years running. The result was a Great Famine from 1845 to 1850. It caused 1.7 million people to flee this beautiful country and ultimately starved another one million Irish to death!

3. (Peru)

Here on the harsh slopes of the Andes Mountains in what we know today as Peru, we find our second story. You may not realize it, but the people in this part of the world domesticated the potato starting almost 2000 years ago. Their work reached its full flower during the reign of the Inca between the 12th and 16th centuries. Like the Irish, they made the potato their main calorie source. But instead of growing just one variety, they cultivated more than 200 varieties of potatoes. Some varieties flourished in dry times; some in wet; some were resistant to one kind of pest; some to others. Some grew best in cloudy conditions; some in intense sun. And, every year, they planted many of these varieties. As a result of this potato diversity, they were guaranteed that no matter what happened, they were likely to have a successful harvest and enough to eat.

4. (Peru)

Why are these two stories important to us as we begin our journey through the 21st century? Because they are symbolic of a great choice we have to make. One culture chose to maximize the advantage of sameness. And, even though they received substantial short-term advantages, in the end, they paid a terrible price. The other culture worked hard to maximize the advantages of diver-

sity. And, under very difficult conditions, they benefited from that diversity for more than 15 centuries. Simply put, all of us—east and west—north and south—have to choose between these two pathways. And this choice has to be made at every level and in every organization of your society. One way leads us back to homogeneous societies where sameness is rewarded and differences are demonized. The other way is toward heterogeneous societies where diversity, variety and difference are prized. It is my contention that sameness, in the long run, leads down a pathway toward impoverishment, in every sense of the word. And diversity leads upwards toward a new level and kind of wealth which the world has never seen before. It is also my contention that diversity is directly connected to innovation and innovation is directly connected to wealth. You cannot have the benefits of one without also enlisting the energy of the others.

5. (TV studio)

The Inca were destroyed by a European culture that believed there was only one right way to do things. Today, we still have many groups who believe in and practice that.

6. (In front of TV monitors)

They are saying, in so many words, “If you aren’t just like me, go away!” Or even worse. It’s been happening all over the world: In Serbia—In Japan—In Afghanistan—In Africa—In Germany—In the United States of America. No matter what their outward appearances are, all these groups have one characteristic in common: a deep fear of differences. And these people can show up anywhere: in your workplace; in your neighborhood; in your place of worship. Rather than appreciating all the advantages that diversity can bring, they choose, instead, to sing the siren song of homogeneity, to rally around mirror images of themselves, and let their fear manifest itself as hate.

7. (TV room)

Of course, it would be easy to brush these people off as crazy or stupid or “sick.” But that would be a mistake. Instead, we need to pause a minute and try to understand why these people are so afraid of difference.

8. (Day care center)

Scientist and author George Land offers a powerful explanation in his book, *Grow or Die*. It is his contention that all things, grow and develop within the same three stage pattern: These babies are in the first stage of growth. Land calls this stage, “accretion.” The focus at this stage is on the growth and development of the single individual so these babies are seeking food and love and security so they can survive and flourish. This stage takes us from birth to adolescence.

9. (in a high school hallway)

Once the first stage is accomplished, then the second stage of growth can begin. Land calls this second stage “Replication.” Growth now focuses on creating or joining with other elements as much alike the original as possible. Bacteria do this by splitting in two. Aspen trees do this by sending out shoots to grow more Aspen trees. Children do it by becoming “teenagers.” In the Replicative stage, sameness is sought after and celebrated! So we see our children form groups and clubs and gangs where they talk the same, and dress the same, and act the same. To put it in George Land’s terms, all groups that form around self-similarity are replicating themselves and are in the 2nd stage of growth.

10. (High School courtyard)

Now, it is very important to understand the advantages of this second stage. Here are four to consider: One: As a group you can accomplish things that can't be done by a single individual, no matter how talented or strong. Two: your personal existence is validated by others who have chosen to be just like you. Three: since everyone talks alike, and thinks alike, it is easier to communicate and make decisions. And four: all of these similarities increase the level of predictability within the group! We see equivalent patterns of replication in many of today's organizations. For the very same reasons.

11. (Eastern Washington Wheat fields)

But while there are those benefits to consider, there are also several inherent risks in the second stage of growth. First, from agriculture, we have learned that any homogeneous crop is extremely vulnerable to a single threat. That's what happened to the Irish with their potato crop. And that's what can happen to wheat fields like this. As long as all the conditions are right, this field will produce prodigious amounts of grain. But all it takes is one infection, and every bit of this can be wiped out in the blink of an eye. To put it another way, if one shaft of wheat is vulnerable, then all are vulnerable. And if your organization lacks diversity in its people? Imagine the great vulnerability you face with just a single, unpredictable threat arising from the global marketplace of the 21st century! A second risk? In an environment of sameness, it is almost impossible to be innovative, because no one thinks differently. And, if you dare to—well... there is an old Japanese saying that describes what will happen: "The nail that sticks up gets hammered down." It is dangerous to offer new ways of thinking in a homogeneous society. And without new ideas there can be no progress or improvement in the world.

12. (Eastern Washington)

To wrap this up, any system-biological, organizational, cultural—based on similarity, sameness, purity, homogeneity—however you want to say it—will ultimately lead to stagnation and stagnation to collapse. Not the stuff on which to build a long term future.

13. (Mount Rainier)

To climb to a more enduring future, we need use a pathway built on differences, not similarities. A future based on differences, on diversity, has the capacity to sustain us, not just for decades, but for centuries, even millennia. Because diversity brings with it the opportunity for ongoing innovation and increasing abundance for everyone. Those societies and organizations that most creatively incorporate diversity will reap the rewards of innovation, growth, wealth and progress.

14. (Cedar Creek Long Term Eco Site)

We are walking next to one of the finest ecological experiments in the world. It is located at the University of Minnesota's Cedar Creek Long Term Ecology Research site, 50 Kilometers north of Minneapolis. Its director, Dr. David Tilman, and his colleagues have been running ecological experiments since 1982. This is one area of his research—a series of more than 100 squares—each 2 meters by 2 meters. In each of the plots, Dr. Tilman's team planted varying numbers of 24 prairie species in different combinations. So some of these plots have only one or two kinds of plants growing on them; and others have as many as 24 different plants. The goal of his research was to uncover the effects of bio-diversity. After more than 10 years of research, here are some of his key findings: One: highly diverse ecosystems are much more capable of dealing with large-scale shocks

like drought and floods than simpler systems. And they recover from any damage faster than simple systems. Two: the plots with greater diversity utilize available resources more efficiently than homogeneous plots. To put it another way, complex ecosystems waste less. Three: high diversity ecosystems withstand attack from predators and disease much better than simple ecosystems. That means they are healthier over the long run. Four: ecosystems with high diversity are more productive than low diversity ecosystems. You get higher pay back from your investment. (You get more bang for your buck.) And, five, all those different species, all that diversity, makes the more complex ecosystem much more stable, much more predictable, across a greater variation of change! Just look at these two plots: the difference is extraordinary! In a very real sense, the variety, the heterogeneity, stabilizes the entire system, even in times of great stress, thus increasing the likelihood of its long term success. What Dr. Tilman and his team have teased out with this wonderful research are some of the profound advantages Mother Nature has gained from diversity. And more and more, organizational theorists are looking exactly here, at complex ecosystems, to find lessons for enterprises of all kinds. I say the lessons are already coming clear. What we are seeing is part of the new definition of wealth: The wealth of sustainability; The wealth of efficient resource utilization; The wealth of lowered risks and increased predictability and improved productivity. We need to listen well to these lessons.

15. (Library)

Imbedded in this new ecological research is a simple but powerful message: The world is becoming more complex. The proof of that statement won Belgium scientist, Ilya Prigogine, the Nobel Prize for his ground-breaking work on complexity. According to Prigogine, all systems become more complex just as long as one condition is met: excess energy on which to grow. And with increasing complexity always comes increasing diversity. So, how can we cope with all the added complexity and diversity? Where can we go to find solutions to the problems this new complexity creates for us? And, how can we access the wide range of opportunities that accompanies this complexity?

16. (Library)

We return to George Land to get the answer. Remember that Land described three stages of growth. The first stage was accretion, an individual pulling together the resources it needs to sustain its existence; The second stage, Replication, was the joining of multiple individuals, with a high degree of similarity, to work together as a group; Land's Third stage of growth, the most mature stage, is where individual elements that are very different from one another join together to create new combinations that are beneficial for the whole group and for each individual. This stage is called "Mutualism," because each element in the new combination mutually benefits. In a very real and mathematical sense, the process of mutualism can generate an almost infinite set of possible combinations using the differences available. And we can choose appropriate solutions from all of those combinations to deal with the problems and access the opportunities created by our increasingly complex world. Now, let's see how mutualism works.

17. (Pine forest)

In a forest very much like this one, north of Vancouver, Canada, a wonderful examination of mutualism has been underway. Researchers lead by Suzanne Simard of the British Columbia Ministry of Forests, have been exploring the relationship between fungi and the trees. Fungi forms an underground net that is everywhere in the forest soil and connects to everything. If you could unravel all the fungal threads in just a single ounce of this soil, you would find more than two miles of fila-

ments. The fungi and the trees have developed a mutualistic relationship. You see, the fungi are very good at liberating certain nutrients from the soil that the trees need. The trees are very good at making sugars that the fungi needs. Neither is good at doing the other's work. So they cooperate, they collaborate, they work mutualistically, using their differences to help one another. So comprehensive is this cooperation that research has discovered the following: The fungi has the power to borrow excess carbon from these deciduous trees over here where they are getting plenty of sunlight, and move that carbon down through its filaments, underground, to those fir seedlings over there which are short of carbon because they are not getting enough sunlight. Keep in mind, that these trees have no "family" connections. There are no immediate benefits for the deciduous trees to give up excess carbon. But this exchange, mediated by the fungi, guarantees the seedlings' survival. And helps keep the forest diverse and healthy over the long term. In a sense, the fungi are acting as brokers and are making sure the elements necessary for growth get to those who need it for the benefit of the whole forest. The lesson of the day? Collaboration between very different species is necessary in order for everyone to do well. No one species can survive, for long, all by themselves. That's mutualism.

18. (Henry Ford Museum)

In our world of organizations this same lesson holds true. There is a great story about the design of a car that perfectly illustrates human mutuality. In the early '80's, Ford was struggling to compete with the Japanese. They were losing billions of dollars each year. To save themselves, they decided to build the best passenger car in the world for the money. But, they knew, if they did it the old way, using only their designers, they would fail. So, they assembled a mutualistic team of more than 100 people from all over the landscape to define and refine this new world class car. They picked people from the assembly line and people from marketing and people from sales within Ford. They invited mechanics who worked on Fords at the dealerships and housewives who drove Ford cars and travelling salesmen. They invited people who only drove foreign cars and they even invited people who didn't like Fords. The designers, of course, were distraught because what did these people know about designing a car? But as they sat and listened to these people talk about what a car really should be, they learned the power of mutuality built on diversity. Again and again they gained insights which they never would have had by themselves! The result was the magnificent 1986 Ford Taurus. Let me show you just one of the many insights of the group—this door. It was a revolutionary design in its day. It's called a shingle door from the way it overlaps. Someone from the assembly line pointed out to the designers their door design would be very difficult to align. "So what would you do?" asked the designers. This was the answer. Much simpler. Much easier to align. Great looking. This one idea alone saved Ford millions of dollars. And the end result of all the diverse input from "people who didn't know anything about designing cars," was the Taurus which dominated the industry for the next 10 years and changed the very way Ford went about designing cars.

19. (Singapore downtown)

Not only does mutualism work for forests and for Ford, it also works for nations. When Singapore gained its independence in 1965, it had the potential for major cultural problems, because its population was a diverse mixture of Chinese, Malay, Anglo and Indian. But their new elected Leader, Lee Kuan Yew, turned a potential problem of cultural diversity into an extraordinary strength. How did he do that? He simply made mutualism the bridge between the cultures! As part of his vision for Singapore, he made multi-racialism, multi-culturalism and multi-religion key components of the new Singapore society. Everyone, no matter what their background, was invited to participate

in building the new nation. To make sure everyone had the necessary training and preparation, Singapore proceeded to build a world class public education system.

20. (Harbor vista)

And, as Singaporeans learned to collaborate with each other, building on the strength of their differences, they were becoming adept at working with all cultures around the world. As a result of those measures, Singapore has not had a race riot since its independence. It has grown, in the past 35 years, to become the most trusted nation in the world, the second most competitive nation in the world, and the fifth wealthiest nation, per capita, in the world. And they're not done yet. In 1999, the leaders of Singapore realized that it would take more than cultural diversity to compete successfully in the 21st century. So, as part of their new vision, they have started to roll back the strong controls on the flow of information into their country and have begun to establish an environment where freedom of expression, artistic diversity and intellectual diversity can flourish.

21. (Singapore Gardens)

So the magic of mutualism is in the combining of elements that are very different to create new ideas that offer great advantage for all the participants. In a very real way, it is like combining flowers in a garden. The result of all those differences can be wonderful! Now listen very carefully. Mutualism is a process that converts diversity into wealth. The wealth of the forest is the direct result of mutualism. The wealth created by the Ford Taurus—the direct result of mutualism. And Singapore's wealth, is profoundly influenced by mutualism. And your organization? How successful is it in taking advantage of this extraordinary opportunity for growth? Don't ever forget: without diversity, mutualism is impossible! But, if you don't know how to behave mutualistically, if you can't collaborate with individuals and enterprises that are different from yourself, then you will never be able to reap the benefits of diversity! So, let me say it again. Mutualism is the process that converts the inventory of diversity into wealth.

22. (Henry Ford Museum)

Now it is time to begin to connect Wealth, innovation and diversity more clearly. We've seen how diversity sets the stage for new ideas and how mutualism manifests those ideas into new combinations. Another way to describe these new ideas is as innovations. And successful innovations add new value to the world. New value creates new wealth. And, according to the Economist magazine, as much as 40% of all the increased wealth in the world each year comes from innovation. So ongoing innovation enlarges the economic pie from which the whole world can dine. While there are several kinds of innovations, I have found that one kind, in particular, adds the most new value and the most new wealth. I have labeled these "paradigm-shifting" innovations.

23. (Street corner)

One example of paradigm shift innovation is the cellular phone. It didn't "just improve" the old paradigm like touch tone dialing did. Instead, it created a new paradigm by changing the basic rules: No wires; Carry it in your pocket; Minute by minute billing all the time; The phone number travels with the customer. This new telephone paradigm—clearly a revolution—has opened up a whole new territory of communications with huge growth opportunities: And it is creating new wealth all over the world not in percentages but in multiples: 10 times, 50 times, 1000 times. So those people who create paradigm-shifting innovations are the most powerful generators of new wealth on earth. Now, what's the connection of between these wealth generating innovators and diversity?

24. (Ellis Island)

This is the final piece of the puzzle. These people, the ones most likely to discover a new paradigm—the ones that create all that opportunity for new wealth—are almost always outsiders, someone who knows little or nothing about the normal way of doing things. To put it another way, it is people unlike ourselves who bring to us the source for new wealth! How many of these “outsiders” have you overlooked? And you can only access these people if you are open to diversity, because, by definition, these people must be different from you and me.

25. (Ellis Island)

Here at Ellis Island, America officially opened its doors to more immigrants than any other nation in history. They came from all over the world, from many different cultures and every level of social and economic status. What did America gain by being so open to all these people? More diversity—therefore more innovation—just look at all the revolutionary ideas we’ve had—and therefore more wealth than any other nation in history! Do you think this is just coincidence? I think not. America is the living proof of how wealth, innovation and diversity are connected.

26. (Noisy highway interchange)

So America is a meeting place for differences. And anywhere differences can meet and interact, something powerful can occur. Let me put it this way: At the intersection of differences lies the opportunity for innovation. And this is true at every level of every enterprise, every community, every country: See how it all fits? New wealth is the result of innovation. And innovation is driven by diversity. They are all connected. They cannot be separated. They move together in an ever-upward spiral.

27. (Courtyard in Cusco)

We have traveled up a long pathway in our exploration. And we have found some important things about diversity which are true ecologically, culturally and economically: Diversity Gives us long term vigor and the ability to survive large scale trauma diversity dramatically increases the number of options we have for problem solving diversity is the natural direction of the universe diversity creates, through growing complexity, the need for new paradigms to understand and interact with that complexity. And, in a very neat loop, the source of those new paradigms to deal with the growing complexity, are outsiders, who, themselves, are the result of diversity. We have found that diversity is the key that opens the door to the new wealth of the 21st century.

28. (Peru - ending)

The world has crossed the threshold of the new Millennium. And much of what is ahead is unfamiliar to all of us. The easy response to all that unfamiliarity, might be to turn around and go back down the pathway to “where we belong.” But that would be wrong because our true nature has never been about staying “where we belong” but going “where we become!” Ahead of us, up the pathway, around the curve, the new world is beginning to flower: new ideas, new technology, new music, new art, new businesses, new industries, new friendships, new cultures, new opportunities for growth, await us all. And they are richer and deeper and more diverse than any one of us can imagine. So we need to begin the climb—together. And we must climb with a common vision, one that will form the foundation of the 21st century: to build a world, on the strength of our differences, where all of us can be happy and healthy at the expense of no one else. So, let’s get started. After all, we don’t want to keep the new Millennium waiting.

There is a pathway up the mountain
To where a thousand flowers grow

Each one different each one special
With its gifts, its seeds to sow.

Chorus

So let a thousand different flowers bloom,
Across the planet, there is always room.

So let a thousand different flowers be
One is like you, my friend, one like me.

So let a thousand different flowers grow
In the gentle wind, they bend and blow

The strength of difference is our guide star
Which we follow from day to day

And when we find our next great pathway
Our differences will blaze the way.

Chorus

Walking together up the mountain
Is heavy work and takes some time

But when we get there and see the splendor
We will know, it's worth the climb

Chorus