About the Author

Hans Rosling was a medical doctor, professor of international health, and renowned public educator. He was an adviser to the World Health Organization and UNICEF, and he cofounded Médecins Sans Frontières in Sweden and the Gapminder Foundation. His TED talks have been viewed more than thirty-five million times, and he was listed as one of Time magazine's one hundred most influential people in the world. Hans died in 2017, having devoted the last years of his life to writing this book.

Ola Rosling and Anna Rosling Rönnlund, Hans's son and daughter-in-law, are cofounders of the Gapminder Foundation, and Ola its director from 2005 to 2007 and from 2010 to the present day. After Google acquired Trendalyzer, the bubble chart tool invented and designed by Anna and Ola, Ola became head of Google's Public Data Team and Anna became the team's senior user-experience (UX) designer. They have both received international awards for their work.

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AUTHOR'S NOTE

Factfulness is written in my voice, as if by me alone, and tells many stories from my life. But please don't be misled. Just like the TED talks and lectures I have been giving all over the world for the past ten years, this book is the work of three people, not one.

I am usually the front man. I stand onstage and deliver the lectures. I receive the applause. But everything you hear in my lectures, and everything you read in this book, is the output of eighteen years of intense collaboration between me, my son Ola Rosling, and my daughter-in-law Anna Rosling Rönnlund.

In 2005 we founded the Gapminder Foundation, with a mission to fight devastating ignorance with a fact-based worldview. I brought energy, curiosity, and a lifetime of experience as a doctor, a researcher, and a lecturer in global health. Ola and Anna were responsible for the data analysis, inventive visual explanations, data stories, and simple presentation design. It was their idea to measure ignorance systematically, and they designed and programmed our beautiful animated bubble charts. Dollar Street, a way of using photographs as data to explain the world, was Anna's brainchild. While I was getting ever angrier about people's ignorance about the world, Ola and Anna instead took the analysis beyond anger and crystallized the humble and relaxing idea of Factfulness. Together we defined the practical thinking tools that we present in this book.

What you are about to read was not invented according to the "lone genius" stereotype. It is instead the result of constant discussion, argument, and collaboration between three people with different talents, knowledge, and perspectives. This unconventional, often infuriating, but deeply productive way of working has led to a way of presenting the world and how to think about it, that I never could have created on my own.

INTRODUCTION

Why I Love the Circus

I love the circus. I love to watch a juggler throwing screaming chain saws in the air, or a tightrope walker performing ten flips in a row. I love the spectacle and the sense of amazement and delight at witnessing the seemingly impossible.

When I was a child my dream was to become a circus artist. My parents' dream, though, was for me to get the good education they never had. So I ended up studying medicine.

One afternoon at medical school, in an otherwise dry lecture about the way the throat worked, our professor explained, "If something is stuck, the passage can be straightened by pushing the chin bone forward." To illustrate, he showed an X-ray of a sword swallower in action.

I had a flash of inspiration. My dream was not over! A few weeks earlier, when studying reflexes, I had discovered that of all my classmates, I could push my fingers farthest down my throat without gagging. At the time, I had not been too proud: I didn't think it was an important skill. But now I understood its value, and instantly my childhood dream sprang back to life. I decided to become a sword swallower.

My initial attempts weren't encouraging. I didn't own a sword so used a fishing rod instead, but no matter how many times I stood in front of the bathroom mirror and tried, I'd get as far as an inch and it would get stuck. Eventually, for a second time, I gave up on my dream.

Three years later I was a trainee doctor on a real medical ward. One of my first patients was an old man with a persistent cough. I would always ask what my patients did for a living, in case it was relevant, and it turned out he used to swallow swords. Imagine my surprise when this patient turned out to be the very same sword

swallower from the X-ray! And imagine this, when I told him all about my attempts with the fishing rod. "Young doctor," he said, "don't you know the throat is flat? You can only slide flat things down there. That is why we use a sword."

That night after work I found a soup ladle with a straight flat handle and immediately resumed my practice. Soon I could slide the handle all the way down my throat. I was excited, but being a soup ladle shaft swallower was not my dream. The next day, I put an ad in the local paper and soon I had acquired what I needed: a Swedish army bayonet from 1809. As I successfully slid it down my throat, I felt both deeply proud of my achievement and smug that I had found such a great way to recycle weapons.

Sword swallowing has always shown that the seemingly impossible can be possible, and inspired humans to think beyond the obvious. Occasionally I demonstrate this ancient Indian art at the end of one of my lectures on global development. I step up onto a table and rip off my professorial checked shirt to reveal a black vest top decorated with a gold sequined lightning bolt. I call for complete silence, and to the swirling beat of a snare drum I slowly slide the army bayonet down my throat. I stretch out my arms. The audience goes wild.

Test Yourself

This book is about the world, and how to understand it. So why start with the circus? And why would I end a lecture by showing off in a sparkly top? I'll soon explain. But first, I would like you to test your knowledge about the world. Please find a piece of paper and a pencil and answer the 13 fact questions below.

1. In all low-income countries across the world today, how many girls finish primary school?
   - ☐ A: 20 percent
   - ☐ B: 40 percent
   - ☐ C: 60 percent

2. Where does the majority of the world population live?
   - ☐ A: Low-income countries
   - ☐ B: Middle-income countries
   - ☐ C: High-income countries

3. In the last 20 years, the proportion of the world population living in extreme poverty has …

☐ A: almost doubled

☐ B: remained more or less the same

☐ C: almost halved

4. What is the life expectancy of the world today?

☐ A: 50 years

☐ B: 60 years

☐ C: 70 years

5. There are 2 billion children in the world today, aged 0 to 15 years old. How many children will there be in the year 2100, according to the United Nations?

☐ A: 4 billion

☐ B: 3 billion

☐ C: 2 billion

6. The UN predicts that by 2100 the world population will have increased by another 4 billion people. What is the main reason?

☐ A: There will be more children (age below 15)

☐ B: There will be more adults (age 15 to 74)

☐ C: There will be more very old people (age 75 and older)

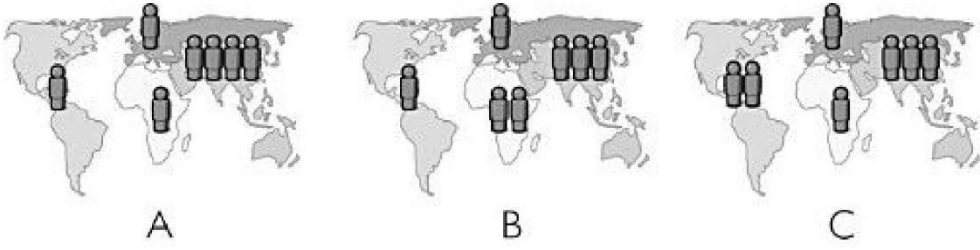
7. How did the number of deaths per year from natural disasters change over the last hundred years?

☐ A: More than doubled

☐ B: Remained about the same

☐ C: Decreased to less than half

8. There are roughly 7 billion people in the world today. Which map shows best where they live? (Each figure represents 1 billion people.)



A B C

9. How many of the world's 1-year-old children today have been vaccinated against some disease?

☐ A: 20 percent

☐ B: 50 percent

☐ C: 80 percent

10. Worldwide, 30-year-old men have spent 10 years in school, on average. How many years have women of the same age spent in school?

☐ A: 9 years
☐ B: 6 years
☐ C: 3 years

11. In 1996, tigers, giant pandas, and black rhinos were all listed as endangered. How many of these three species are more critically endangered today?

☐ A: Two of them
☐ B: One of them
☐ C: None of them

12. How many people in the world have some access to electricity?

☐ A: 20 percent
☐ B: 50 percent
☐ C: 80 percent

13. Global climate experts believe that, over the next 100 years, the average temperature will …

☐ A: get warmer
☐ B: remain the same
☐ C: get colder

Here are the correct answers:

1: C, 2: B, 3: C, 4: C, 5: C, 6: B, 7: C, 8: A, 9: C, 10: A, 11: C, 12: C, 13: A

Score one for each correct answer, and write your total score on your piece of paper.

Scientists, Chimpanzees, and You

How did you do? Did you get a lot wrong? Did you feel like you were doing a lot of guessing? If so, let me say two things to comfort you.

First, when you have finished this book, you will do much better. Not because I will have made you sit down and memorize a string of global statistics. (I am a global health professor, but I'm not crazy.)

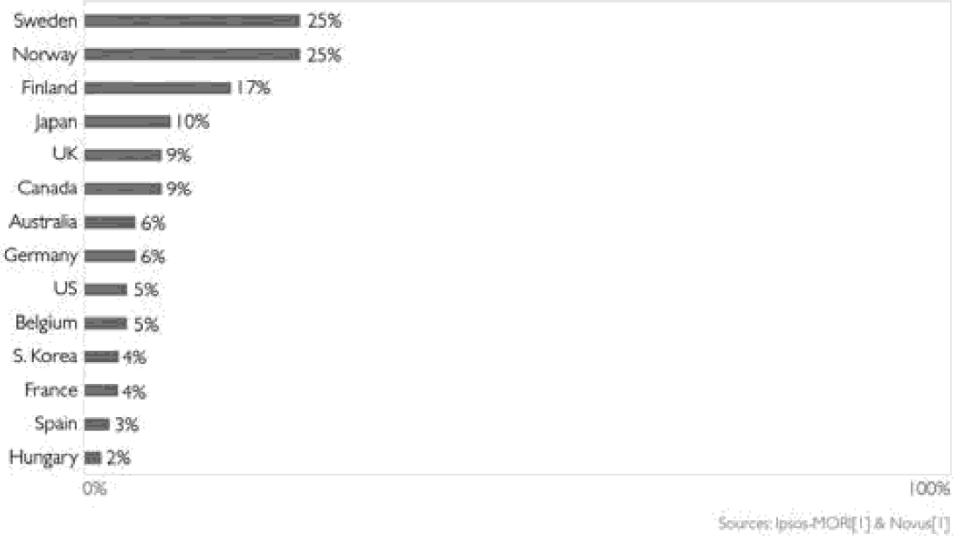
You'll do better because I will have shared with you a set of simple thinking tools. These will help you get the big picture right, and improve your sense of how the world works, without you having to learn all the details.

And second: if you did badly on this test, you are in very good company.

Over the past decades I have posed hundreds of fact questions like these, about poverty and wealth, population growth, births, deaths, education, health, gender, violence, energy, and the environment—basic global patterns and trends—to thousands of people across the world. The tests are not complicated and there are no trick questions. I am careful only to use facts that are well documented and not disputed. Yet most people do extremely badly.

Question three, for example, is about the trend in extreme poverty. Over the past twenty years, the proportion of the global population living in extreme poverty has halved. This is absolutely revolutionary. I consider it to be the most important change that has happened in the world in my lifetime. It is also a pretty basic fact to know about life on Earth. But people do not know it. On average only 7 percent—less than one in ten!—get it right.

FACT QUESTION 3 RESULTS: percentage who answered correctly.
In the last 20 years, the proportion of the world population living in extreme poverty has … ?
(Correct answer: almost halved.)



Sources: Ipsos-MORI[1] & Novus[1]

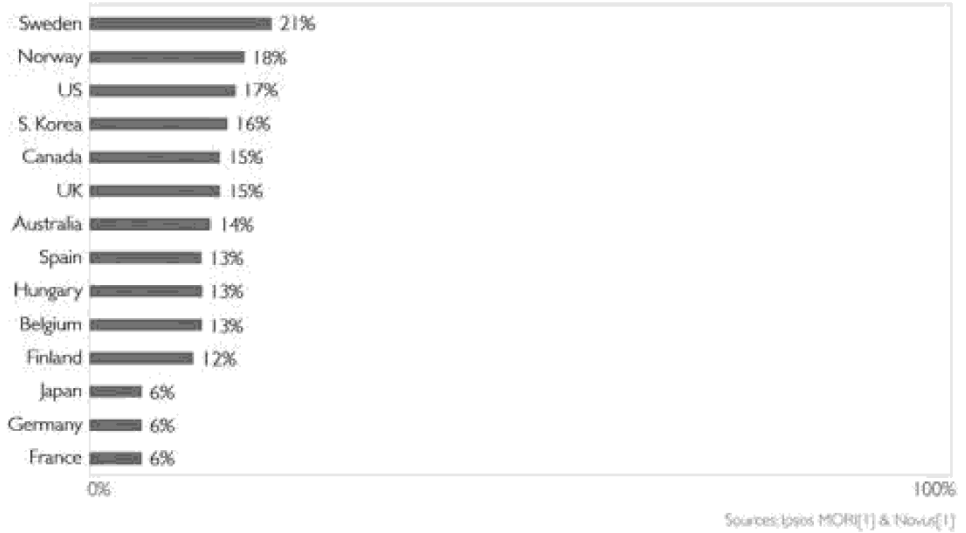
(Yes, I have been talking a lot about the decline of global poverty in the Swedish media.)

The Democrats and Republicans in the United States often claim that their opponents don't know the facts. If they measured their own knowledge instead of pointing at each other, maybe everyone could become more humble. When we polled in the United States, only 5 percent picked the right answer. The other 95 percent, regardless of their voting preference, believed either that the extreme poverty rate had not changed over the last 20 years, or, worse, that it had actually doubled—which is literally the opposite of what has actually happened.

Let's take another example: question nine, about vaccination. Almost all children are vaccinated in the world today. This is amazing. It means that almost all human beings alive today have some access to basic modern health care. But most people do not know this. On average just 13 percent of people get the answer right.

FACT QUESTION 9 RESULTS: percentage who answered correctly.

How many of the world's one-year-old children today have been vaccinated against some disease? (Correct answer: 80%.)



Sources: Ipsos MORI[1] & Novus[1]

Eighty-six percent of people get the final question about climate change right. In all the rich countries where we have tested public knowledge in online polls, most people know that climate experts are predicting warmer weather. In just a few decades, scientific findings

have gone from the lab to the public. That is a big public-awareness success story.

Climate change apart though, it is the same story of massive ignorance (by which I do not mean stupidity, or anything intentional, but simply the lack of correct knowledge) for all twelve of the other questions. In 2017 we asked nearly 12,000 people in 14 countries to answer our questions. They scored on average just two correct answers out of the first 12. No one got full marks, and just one person (in Sweden) got 11 out of 12. A stunning 15 percent scored zero.

Perhaps you think that better-educated people would do better? Or people who are more interested in the issues? I certainly thought that once, but I was wrong. I have tested audiences from all around the world and from all walks of life: medical students, teachers, university lecturers, eminent scientists, investment bankers, executives in multinational companies, journalists, activists, and even senior political decision makers. These are highly educated people who take an interest in the world. But most of them—a stunning *majority* of them—get most of the answers wrong. Some of these groups even score *worse* than the general public; some of the most appalling results came from a group of Nobel laureates and medical researchers. It is not a question of intelligence. Everyone seems to get the world devastatingly wrong.

Not only devastatingly wrong, but *systematically* wrong. By which I mean that these test results are not random. They are worse than random: they are worse than the results I would get if the people answering my questions had no knowledge at all.

Imagine I decide to head down to the zoo to test out my questions on the chimpanzees. Imagine I take with me huge armfuls of bananas, each marked either A, B, or C, and throw them into the chimpanzee enclosure. Then I stand outside the enclosure, read out each question in a loud, clear voice, and note down, as each chimpanzee's "answer," the letter on the banana she next chooses to eat.

If I did this (and I wouldn't ever actually do this, but just imagine), the chimps, by picking randomly, would do consistently better than the well-educated but deluded human beings who take my tests. Through pure luck, the troop of chimps would score 33 percent on each three-answer question, or four out of the first 12 on the whole test. Remember that the humans I have tested get on average just two out of 12 on the same test.

What's more, the chimps' errors would be equally shared between the two wrong answers, whereas the human errors all tend to be in one direction. Every group of people I ask thinks the world is more frightening, more violent, and more hopeless—in short, more dramatic—than it really is.

Why Don't We Beat the Chimpanzees?

How can so many people be so wrong about so much? How is it even possible that the majority of people score worse than chimpanzees? *Worse than random!*

When I got my first little glimpse of this massive ignorance, back in the mid-1990s, I was pleased. I had just started teaching a course in global health at Karolinska Institutet in Sweden and I was a little nervous. These students were incredibly smart; maybe they would already know everything I had to teach them? What a relief when I discovered that my students knew less about the world than chimpanzees.

But the more I tested people, the more ignorance I found, not only among my students but everywhere. I found it frustrating and worrying that people were so wrong about the world. When you use the GPS in your car, it is important that it is using the right information. You wouldn't trust it if it seemed to be navigating you through a different city than the one you were in, because you would know that you would end up in the wrong place. So how could policy makers and politicians solve global problems if they were operating on the wrong facts? How could business people make sensible decisions for their organizations if their worldview were upside down? And how could each person going about their life know which issues they should be stressed and worried about?

I decided to start doing more than just testing knowledge and exposing ignorance. I decided to try to understand why. Why was this ignorance about the world so widespread and so persistent? We are all wrong sometimes—even me, I will readily admit that—but how could so many people be wrong about so much? Why were so many people scoring worse than the chimps?

Working late one night at the university I had a eureka moment. I realized the problem couldn't simply be that people lacked the knowledge, because that would give randomly incorrect answers

—chimpanzee answers—rather than worse-than-random, worse-than-chimpanzee, systematically wrong answers. Only actively wrong "knowledge" can make us score so badly.

Aha! I had it! What I was dealing with here—or so I thought, for many years—was an upgrade problem: my global health students, and all the other people who took my tests over the years, did have knowledge, but it was outdated, often several decades old. People had a worldview dated to the time when their teachers had left school.

So, to eradicate ignorance, or so I concluded, I needed to upgrade people's knowledge. And to do that, I needed to develop better teaching materials setting out the data more clearly. After I told Anna and Ola about my struggles over a family dinner, both of them got involved and started to develop animated graphs. I traveled the world with these elegant teaching tools. They took me to TED talks in Monterey, Berlin, and Cannes, to the boardrooms of multinational corporations like Coca-Cola and IKEA, to global banks and hedge funds, to the US State Department. I was excited to use our animated charts to show everyone how the world had changed. I had great fun telling everyone that they were emperors with no clothes, that they knew nothing about the world. We wanted to install the worldview upgrade in everyone.

But gradually, gradually, we came to realize that there was something more going on. The ignorance we kept on finding was not just an upgrade problem. It couldn't be fixed simply by providing clearer data animations or better teaching tools. Because even people who loved my lectures, I sadly realized, weren't really hearing them. They might indeed be inspired, momentarily, but after the lecture, they were still stuck in their old negative worldview. The new ideas just wouldn't take. Even straight after my presentations, I would hear people expressing beliefs about poverty or population growth that I had just proven wrong with the facts. I almost gave up.

Why was the dramatic worldview so persistent? Could the media be to blame? Of course I thought about that. But it wasn't the answer. Sure, the media plays a role, and I discuss that later, but we must not make them into a pantomime villain. We cannot just shout "boo, *hiss*" at the media.

I had a defining moment in January 2015, at the World Economic Forum in the small and fashionable Swiss town of Davos. One thousand of the world's most powerful and influential political and business leaders, entrepreneurs, researchers, activists, journalists,

and even many high-ranking UN officials had queued for seats at the forum's main session on socioeconomic and sustainable development, featuring me, and Bill and Melinda Gates. Scanning the room as I stepped onto the stage, I noticed several heads of state and a former secretary-general of the UN. I saw heads of UN organizations, leaders of major multinational companies, and journalists I recognized from TV.

I was about to ask the audience three fact questions—about poverty, population growth, and vaccination rates—and I was quite nervous. If my audience *did* know the answers to my questions, then none of the rest of my slides, revealing with a flourish how wrong they were, and what they should have answered, would work.

I shouldn't have worried. This top international audience who would spend the next few days explaining the world to each other did indeed know more than the general public about poverty. A stunning 61 percent of them got it right. But on the other two questions, about future population growth and the availability of basic primary health care, they still did worse than the chimps. Here were people who had access to all the latest data and to advisers who could continuously update them. Their ignorance could not possibly be down to an outdated worldview. Yet even they were getting the basic facts about the world wrong.

After Davos, things crystallized.

Our Dramatic Instincts and the Overdramatic Worldview

So here is this book. It shares with you the conclusions I finally reached—based on years of trying to teach a fact-based worldview, and listening to how people misinterpret the facts even when they are right there in front of them—about why so many people, from members of the public to very smart, highly educated experts, score worse than chimpanzees on fact questions about the world. (And I will also tell you what you can do about it.) In short:

Think about the world. War, violence, natural disasters, man-made disasters, corruption. Things are bad, and it feels like they are getting worse, right? The rich are getting richer and the poor are getting poorer; and the number of poor just keeps increasing; and we will soon run out of resources unless we do something drastic. At least

that's the picture that most Westerners see in the media and carry around in their heads. I call it the overdramatic worldview. It's stressful and misleading.

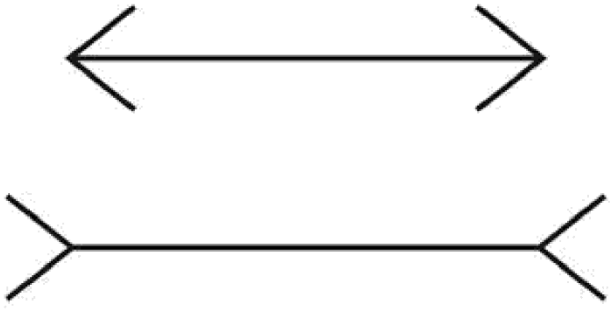
In fact, the vast majority of the world's population lives somewhere in the middle of the income scale. Perhaps they are not what we think of as middle class, but they are not living in extreme poverty. Their girls go to school, their children get vaccinated, they live in two-child families, and they want to go abroad on holiday, not as refugees. Step-by-step, year-by-year, the world is improving. Not on every single measure every single year, but as a rule. Though the world faces huge challenges, we have made tremendous progress. This is the fact-based worldview.

It is the overdramatic worldview that draws people to the most dramatic and negative answers to my fact questions. People constantly and intuitively refer to their worldview when thinking, guessing, or learning about the world. So if your worldview is wrong, then you will systematically make wrong guesses. But this overdramatic worldview is not caused simply by out-of-date knowledge, as I once thought. Even people with access to the latest information get the world wrong. And I am convinced it is not the fault of an evil-minded media, propaganda, fake news, or wrong facts.

My experience, over decades of lecturing, and testing, and listening to the ways people misinterpret the facts even when they are right in front of them, finally brought me to see that the overdramatic worldview is so difficult to shift because it comes from the very way our brains work.

Optical Illusions and Global Illusions

Look at the two horizontal lines below. Which line is longest?



Source: Müller-Lyer illusion

You might have seen this before. The line on the bottom looks longer than the line on the top. You know it isn't, but even if you already know, even if you measure the lines yourself and confirm that they are the same, you keep seeing them as different lengths.

My glasses have a custom lens to correct for my personal sight problem. But when I look at this optical illusion, I still misinterpret what I see, just like everyone else. This is because illusions don't happen in our eyes, they happen in our brains. They are systematic misinterpretations, unrelated to individual sight problems. Knowing that most people are deluded means you don't need to be embarrassed. Instead you can be curious: how does the illusion work?

Similarly, you can look at the results from the public polls and skip being embarrassed. Instead be curious. How does this "global illusion" work? Why do so many people's brains systematically misinterpret the state of the world?

The human brain is a product of millions of years of evolution, and we are hard-wired with instincts that helped our ancestors to survive in small groups of hunters and gatherers. Our brains often jump to swift conclusions without much thinking, which used to help us to avoid immediate dangers. We are interested in gossip and dramatic stories, which used to be the only source of news and useful information. We crave sugar and fat, which used to be life-saving sources of energy when food was scarce. We have many instincts that used to be useful thousands of years ago, but we live in a very different world now.

Our cravings for sugar and fat make obesity one of the largest health problems in the world today. We have to teach our children, and ourselves, to stay away from sweets and chips. In the same way, our quick-thinking brains and cravings for drama—our dramatic

instincts—are causing misconceptions and an overdramatic worldview.

Don't misunderstand me. We still need these dramatic instincts to give meaning to our world and get us through the day. If we sifted every input and analyzed every decision rationally, a normal life would be impossible. We should not cut out all sugar and fat, and we should not ask a surgeon to remove the parts of our brain that deal with emotions. But we need to learn to control our drama intake. Uncontrolled, our appetite for the dramatic goes too far, prevents us from seeing the world as it is, and leads us terribly astray.

Factfulness and the Fact-Based Worldview

This book is my very last battle in my lifelong mission to fight devastating global ignorance. It is my last attempt to make an impact on the world: to change people's ways of thinking, calm their irrational fears, and redirect their energies into constructive activities. In my previous battles I armed myself with huge data sets, eye-opening software, an energetic lecturing style, and a Swedish bayonet. It wasn't enough. But I hope that this book will be.

This is data as you have never known it: it is data as therapy. It is understanding as a source of mental peace. Because the world is not as dramatic as it seems.

Factfulness, like a healthy diet and regular exercise, can and should become part of your daily life. Start to practice it, and you will be able to replace your overdramatic worldview with a worldview based on facts. You will be able to get the world right without learning it by heart. You will make better decisions, stay alert to real dangers and possibilities, and avoid being constantly stressed about the wrong things.

I will teach you how to recognize overdramatic stories and give you some thinking tools to control your dramatic instincts. Then you will be able to shift your misconceptions, develop a fact-based worldview, and beat the chimps every time.

Back to the Circus

I occasionally swallow swords at the end of my lectures to demonstrate in a practical way that the seemingly impossible is possible. Before my circus act, I will have been testing my audience's factual knowledge about the world. I will have shown them that the world is completely different from what they thought. I will have proven to them that many of the changes they think will never happen have *already happened*. I will have been struggling to awaken their curiosity about what is possible, which is absolutely different from what they believe, and from what they see in the news every day.

I swallow the sword because I want the audience to realize how wrong their intuitions can be. I want them to realize that what I have shown them—both the sword swallowing and the material about the world that came before it—however much it conflicts with their preconceived ideas, however impossible it seems, is true.

I want people, when they realize they have been wrong about the world, to feel not embarrassment, but that childlike sense of wonder, inspiration, and curiosity that I remember from the circus, and that I still get every time I discover I have been wrong: "Wow, how is that even possible?"

This is a book about the world and how it really is. It is also a book about you, and why you (and almost everyone I have ever met) do not see the world as it really is. It is about what you can do about it, and how this will make you feel more positive, less stressed, and more hopeful as you walk out of the circus tent and back into the world.

So, if you are more interested in being right than in continuing to live in your bubble; if you are willing to change your worldview; if you are ready for critical thinking to replace instinctive reaction; and if you are feeling humble, curious, and ready to be amazed—then please read on.

CHAPTER ONE

THE GAP INSTINCT

Capturing a monster in a classroom using only a piece of paper

Where It All Started

It was October 1995 and little did I know that after my class that evening, I was going to start my lifelong fight against global misconceptions.

"What is the child mortality rate in Saudi Arabia? Don't raise your hands. Just shout it out." I had handed out copies of tables 1 and 5 from UNICEF's yearbook. The handouts looked dull, but I was excited.

A choir of students shouted in unison: "THIRTY-FIVE."

"Yes. Thirty-five. Correct. This means that 35 children die before their fifth birthday out of every thousand live births. Give me the number now for Malaysia?"

"FOURTEEN," came the chorus.

As the numbers were thrown back at me, I scribbled them with a green pen onto a plastic film on the overhead projector.

"Fourteen," I repeated. "Fewer than Saudi Arabia!"

My dyslexia played a little trick on me and I wrote "Malaisya." The students laughed.

"Brazil?"

"FIFTY-FIVE."

"Tanzania?"

"ONE HUNDRED AND SEVENTY-ONE."

I put the pen down and said, "Do you know why I'm obsessed with the numbers for the child mortality rate? It's not *only* that I care about children. This measure takes the temperature of a whole society. Like a huge thermometer. Because children are very fragile. There are so many things that can kill them. When only 14 children die out of 1,000 in Malaysia, this means that the other 986 survive. Their parents and their society manage to protect them from all the dangers that could have killed them: germs, starvation, violence, and so on. So this number 14 tells us that most families in Malaysia have enough food, their sewage systems don't leak into their drinking water, they have good access to primary health care, and mothers can read and write. It doesn't just tell us about the health of children. It measures the quality of the whole society.

"It's not the numbers that are interesting. It's what they tell us about the lives behind the numbers," I continued. "Look how different these numbers are: 14, 35, 55, and 171. Life in these countries must be extremely different."

I picked up the pen. "Tell me now how life was in Saudi Arabia 35 years ago? How many children died in 1960? Look in the second column."

"TWO HUNDRED ... and forty two."

The volume dropped as my students articulated the big number: 242.

"Yes. That's correct. Saudi Arabian society has made amazing progress, hasn't it? Child deaths per thousand dropped from 242 to 35 in just 33 years. That's way faster than Sweden. We took 77 years to achieve the same improvement.

"What about Malaysia? Fourteen today. What was it in 1960?"

"Ninety-three," came the mumbled response. The students had all started searching through their tables, puzzled and confused. A year earlier, I had given my students the same examples, but with no data tables to back them up, and they had simply refused to believe what I told them about the improvements across the world. Now, with all the evidence right in front of them, this year's students were instead rolling their eyes up and down the columns, to see if I had picked exceptional countries and tried to cheat them. They couldn't believe the picture they saw in the data. It didn't look anything like the picture of the world they had in their heads.

"Just so you know," I said, "you won't find any countries where child mortality has increased. Because the world in general is getting

better. Let's have a short coffee break."

The Mega Misconception That "The World Is Divided in Two"

This chapter is about the first of our ten dramatic instincts, the gap instinct. I'm talking about that irresistible temptation we have to divide all kinds of things into two distinct and often conflicting groups, with an imagined gap—a huge chasm of injustice—in between. It is about how the gap instinct creates a picture in people's heads of a world split into two kinds of countries or two kinds of people: rich versus poor.

It's not easy to track down a misconception. That October evening in 1995 was the first time I got a proper look at the beast. It happened right after coffee, and the experience was so exciting that I haven't stopped hunting mega misconceptions ever since.

I call them mega misconceptions because they have such an enormous impact on how people misperceive the world. This first one is the worst. By dividing the world into two misleading boxes—poor and rich—it completely distorts all the global proportions in people's minds.

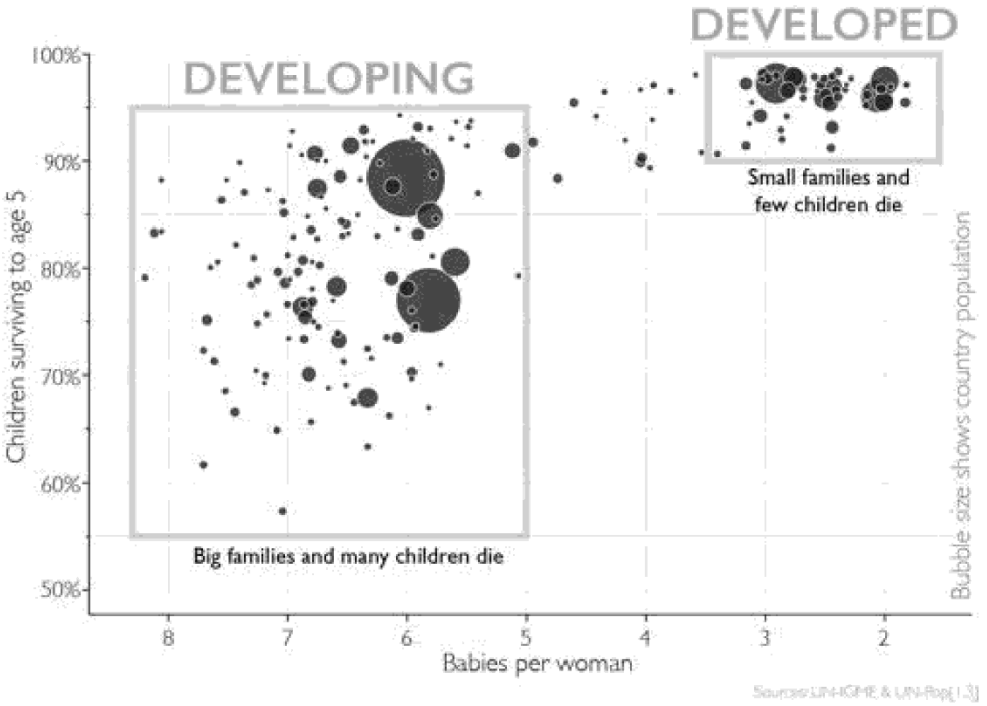
Hunting Down the First Mega Misconception

Starting up the lecture again, I explained that child mortality was highest in tribal societies in the rain forest, and among traditional farmers in the remote rural areas across the world. "The people you see in exotic documentaries on TV. Those parents struggle harder than anyone to make their families survive, and still they lose almost half of their children. Fortunately, fewer and fewer people have to live under such dreadful conditions."

A young student in the first row raised his hand. He tilted his head and said, "They can never live like us." All over the room other students nodded in support.

He probably thought I would be surprised. I was not at all. This was the same kind of "gap" statement I had heard many times before. I wasn't surprised, I was thrilled. This was what I had hoped for. Our dialogue went something like this:

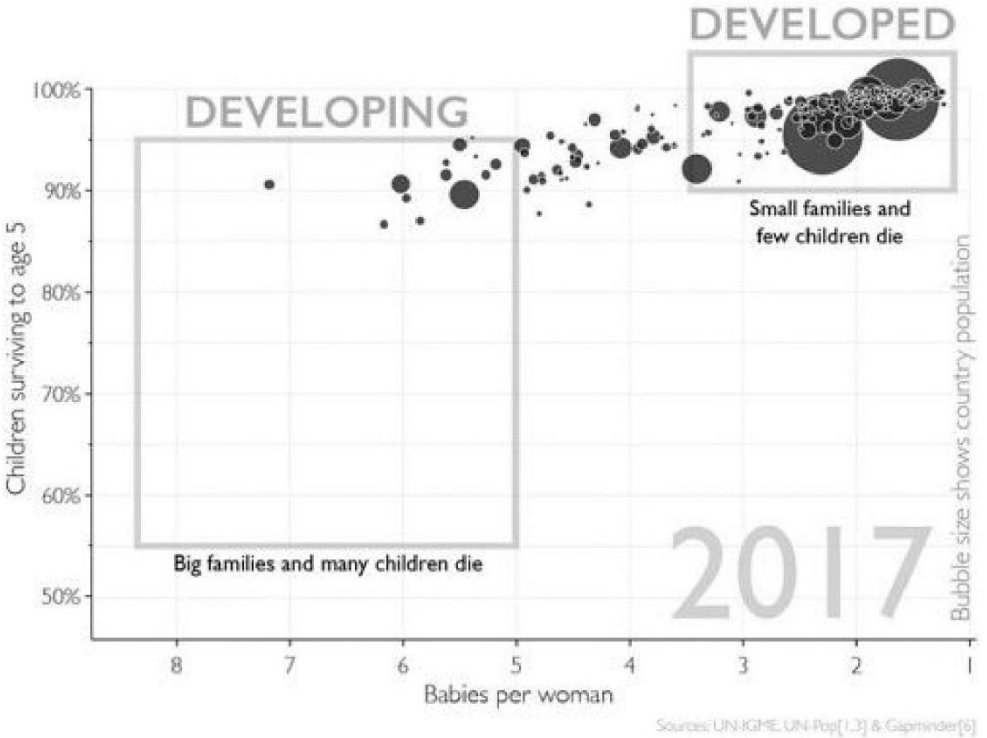
where women have few babies. The higher up a country is on the chart, the better the child survival rate in that country. This chart is exactly what my student in the third row suggested as a way of defining the two groups: "us and them," or "the West and the rest." Here I have labeled the two groups "developing and developed" countries.



Look how nicely the world's countries fall into the two boxes: developing and developed. And between the two boxes there is a clear gap, containing just 15 small countries (including Cuba, Ireland, and Singapore) where just 2 percent of the world's population lives. In the box labeled "developing," there are 125 bubbles, including China and India. In all those countries, women have more than five children on average, and child deaths are common: fewer than 95 percent of children survive, meaning that more than 5 percent of children die before their fifth birthday. In the other box labeled "developed," there are 44 bubbles, including the United States and most of Europe. In all those countries the women have fewer than 3.5 children per woman and child survival is above 90 percent.

The world fits into two boxes. And these are exactly the two boxes that the student in the third row had imagined. This picture clearly shows a world divided into two groups, with a gap in the middle. How nice. What a simple world to understand! So what's the big deal? Why is it so wrong to label countries as "developed" and "developing"? Why did I give my student who referred to "us and them" such a hard time?

Because this picture shows the world in 1965! When I was a young man. That's the problem. Would you use a map from 1965 to navigate around your country? Would you be happy if your doctor was using cutting-edge research from 1965 to suggest your diagnosis and treatment? The picture below shows what the world looks like today.



The world has completely changed. Today, families are small and child deaths are rare in the vast majority of countries, including the largest: China and India. Look at the bottom left-hand corner. The box is almost empty. The small box, with few children and high survival, that's where all countries are heading. And most countries are already there. Eighty-five percent of mankind are already inside

the box that used to be named "developed world." The remaining 15 percent are mostly in between the two boxes. Only 13 countries, representing 6 percent of the world population, are still inside the "developing" box. But while the world has changed, the worldview has not, at least in the heads of the "Westerners." Most of us are stuck with a completely outdated idea about the rest of the world.

The complete world makeover I've just shown is not unique to family size and child survival rates. The change looks very similar for pretty much any aspect of human lives. Graphs showing levels of income, or tourism, or democracy, or access to education, health care, or electricity would all tell the same story: that the world used to be divided into two but isn't any longer. Today, most people are in the middle. There is no gap between the West and the rest, between developed and developing, between rich and poor. And we should all stop using the simple pairs of categories that suggest there is.

My students were dedicated, globally aware young people who wanted to make the world a better place. I was shocked by their blunt ignorance of the most basic facts about the world. I was shocked that they actually thought there were two groups, "us" and "them," shocked to hear them saying that "they" could not live like "us." How was it even possible that they were walking around with a 30-year-old worldview in their heads?

Pedaling home through the rain that evening in October 1995, my fingers numb, I felt fired up. My plan had worked. By bringing the data into the classroom I had been able to prove to my students that the world was not divided into two. I had finally managed to capture their misconception. Now I felt the urge to take the fight further. I realized I needed to make the data even clearer. That would help me to show more people, more convincingly, that their opinions were nothing more than unsubstantiated feelings. That would help me to shatter their illusions that they knew things that really they only felt.

Twenty years later I'm sitting in a fancy TV studio in Copenhagen in Denmark. The "divided" worldview is 20 years older, 20 years more outdated. We're live on air, and the journalist tilts his head and says to me, "We still see an enormous difference between the small, rich world, the old Western world mostly, and then the large part."

"But you're totally wrong," I reply.

Once more I explain that "poor developing countries" no longer exist as a distinct group. That there is no gap. Today, most people, 75 percent, live in middle-income countries. Not poor, not rich,

but somewhere in the middle and starting to live a reasonable life. At one end of the scale there are still countries with a majority living in extreme and unacceptable poverty; at the other is the wealthy world (of North America and Europe and a few others like Japan, South Korea, and Singapore). But the vast majority are already in the middle.

"And what do you base that knowledge on?" continued the journalist in an obvious attempt to be provocative. And he succeeded. I couldn't help getting irritated and my agitation showed in my voice, and my words: "I use normal statistics that are compiled by the World Bank and the United Nations. This is not controversial. These facts are not up for discussion. I am right and you are wrong."

Capturing the Beast

Now that I have been fighting the misconception of a divided world for 20 years, I am no longer surprised when I encounter it. My students were not special. The Danish journalist was not special. The vast majority of the people I meet think like this. If you are skeptical about my claim that so many people get it wrong, that's good. You should always require evidence for claims like these. And here it is, in the form of a two-part misconception trap.

First, we had people disclose how they imagined life in so-called low-income countries, by asking questions like this one from the test you did in the introduction.

FACT QUESTION 1

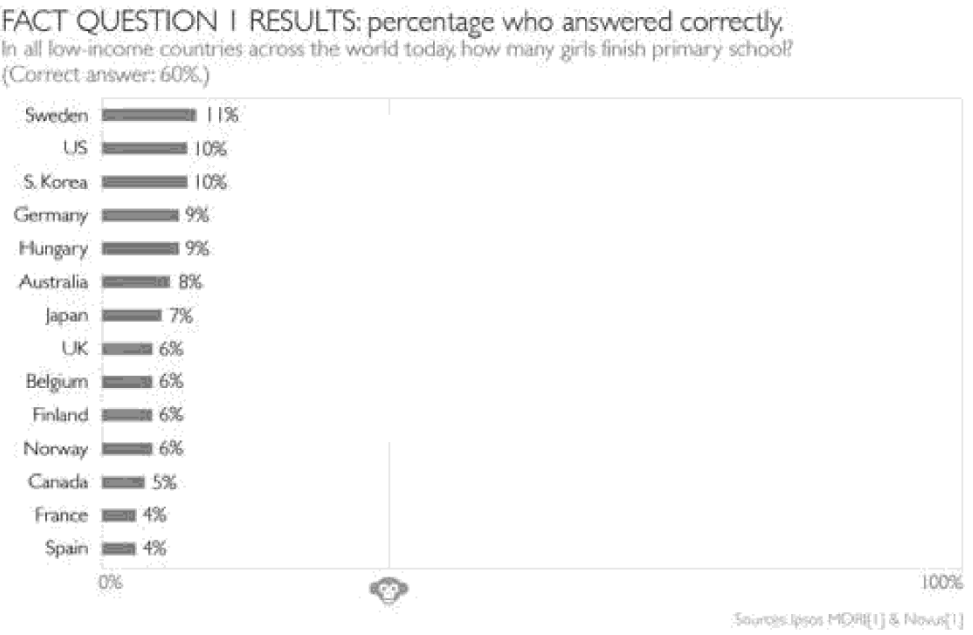
In all low-income countries across the world today, how many girls finish primary school?

- ☐ A: 20 percent
- ☐ B: 40 percent
- ☐ C: 60 percent

On average just 7 percent picked the correct answer, C: 60 percent of girls finish primary school in low-income countries. (Remember, 33 percent of the chimps at the zoo would have gotten this question right.) A majority of people "guessed" that it was just 20 percent. There are only a very few countries in the world—exceptional places like Afghanistan or South Sudan—where fewer than 20 percent of

girls finish primary school, and at most 2 percent of the world's girls live in such countries.

When we asked similar questions about life expectancy, undernourishment, water quality, and vaccination rates—essentially asking what proportion of people in low-income countries had access to the basic first steps toward a modern life—we got the same kinds of results. Life expectancy in low-income countries is 62 years. Most people have enough to eat, most people have access to improved water, most children are vaccinated, and most girls finish primary school. Only tiny percentages—way less than the chimps' 33 percent—got these answers right, and large majorities picked the worst alternative we offered, even when those numbers represented levels of misery now being suffered only during terrible catastrophes in the very worst places on Earth.



Now let's close the trap, and capture the misconception. We now know that people believe that life in low-income countries is much worse than it actually is. But how many people do they imagine live such terrible lives? We asked people in Sweden and the United States:

Of the world population, what percentage lives in low-income countries?

The majority suggested the answer was 50 percent or more. The average guess was 59 percent.

Afterward, people ask me, "So what should we call them instead?" But listen carefully. It's the same misconception: we and them. What should "we" call "them" instead?

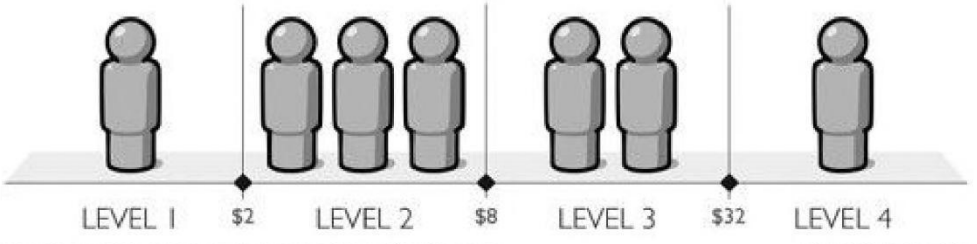
What we should do is stop dividing countries into two groups. It doesn't make sense anymore. It doesn't help us to understand the world in a practical way. It doesn't help businesses find opportunities, and it doesn't help aid money to find the poorest people.

But we need to do some kind of sorting to make sense of the world. We can't give up our old labels and replace them with ... nothing. What should we do?

One reason the old labels are so popular is that they are so simple. But they are wrong! So, to replace them, I will now suggest an equally simple but more relevant and useful way of dividing up the world. Instead of dividing the world into two groups I will divide it into four income levels, as set out in the image below.

FOUR INCOME LEVELS

The world population in 2017. Billions of people on different income.



Income per person in dollars per day adjusted for price differences. Source: Gapminder[3]

Each figure in the chart represents 1 billion people, and the seven figures show how the current world population is spread out across four income levels, expressed in terms of dollar income per day. You can see that most people are living on the two middle levels, where people have most of their basic human needs met.

Are you excited? You should be. Because the four income levels are the first, most important part of your new fact-based framework. They are one of the simple thinking tools I promised would help you to guess better about the world. Throughout the book you will see how the levels provide a simple way to understand all kinds of things, from terrorism to sex education. So I want to try to explain what life is like on each of these four levels.

Think of the four income levels as the levels of a computer game. Everyone wants to move from Level 1 to Level 2 and upward through the levels from there. Only, it's a very strange computer game, because Level 1 is the hardest. Let's play.

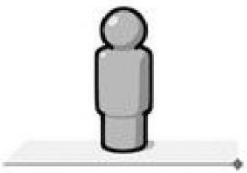
LEVEL 1. You start on Level 1 with $1 per day. Your five children have to spend hours walking barefoot with your single plastic bucket, back and forth, to fetch water from a dirty mud hole an hour's walk away. On their way home they gather firewood, and you prepare the same gray porridge that you've been eating at every meal, every day, for your whole life—except during the months when the meager soil yielded no crops and you went to bed hungry. One day your youngest daughter develops a nasty cough. Smoke from the indoor fire is weakening her lungs. You can't afford antibiotics, and one month later she is dead. This is extreme poverty. Yet you keep struggling on. If you are lucky and the yields are good, you can maybe sell some surplus crops and manage to earn more than $2 a day, which would move you to the next level. Good luck! (Roughly 1 billion people live like this today.)

Water

Transport

Cooking

Plate of food



LEVEL 1 $2

Source: Dollar Street

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