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FACTFULNESS

Ten Reasons We're Wrong About the World — and Why Things Are Better Than You Think



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 “Malaysia.” 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:

ME: Sorry, who do you mean when you say “they”?

HIM: I mean people in other countries.

ME: All countries other than Sweden?

HIM: No. I mean . . . the non-Western countries. They can’t live like us. It won’t work.

ME: Aha! (As if now I understood.) You mean like Japan?

HIM: No, not Japan. They have a Western lifestyle.

ME: So what about Malaysia? They don’t have a “Western lifestyle,” right?

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HIM: No. Malaysia is not Western. All countries that haven't adopted the Western lifestyle yet. They shouldn't. You know what I mean.

ME: No, I don't know what you mean. Please explain. You are talking about "the West" and "the rest." Right?

HIM: Yes. Exactly.

ME: Is Mexico . . . "West"?

He just looked at me.

I didn't mean to pick on him, but I kept going, excited to see where this would take us. Was Mexico "the West" and could Mexicans live like us? Or "the rest," and they couldn't? "I'm confused." I said. "You started with 'them and us' and then changed it to 'the West and the rest.' I'm very interested to understand what you mean. I have heard these labels used many times, but honestly I have never understood them."

Now a young woman in the third row came to his rescue. She took on my challenge, but in a way that completely surprised me. She pointed at the big paper in front of her and said, "Maybe we can define it like this: '*we in the West*' have few children and few of the children die. While '*they in the rest*' have many children and many of the children die." She was trying to resolve the conflict between his mind-set and my data set—in a pretty creative way, actually—by suggesting a definition for how to split the world. That made me so happy. Because she was absolutely wrong—as she would soon realize—and more to the point, she was wrong in a concrete way that I could test.

"Great. Fantastic. Fantastic." I grabbed my pen and leaped into action. "Let's see if we can put the countries in two groups based on how many children they have and how many children die."

The skeptical faces now became curious, trying to figure out what the heck had made me so happy.

I liked her definition because it was so clear. We could check it against the data. If you want to convince someone they are suffering

from a misconception, it's very useful to be able to test their opinion against the data. So I did just that.

And I have been doing just that for the rest of my working life. The big gray photocopying machine that I had used to copy those original data tables was my first partner in my fight against misconceptions. By 1998, I had a new partner—a color printer that allowed me to share a colorful bubble graph of country data with my students. Then I acquired my first human partners, and things really picked up. Anna and Ola got so excited by these charts and my idea of capturing misconceptions that they joined my cause, and accidentally created a revolutionary way to show hundreds of data trends as animated bubble charts. The bubble chart became our weapon of choice in our battle to dismantle the misconception that “the world is divided into two.”

What's Wrong with This Picture?

My students talked about “them” and “us.” Others talk about “the developing world” and “the developed world.” You probably use these labels yourself. What's wrong with that? Journalists, politicians, activists, teachers, and researchers use them all the time.

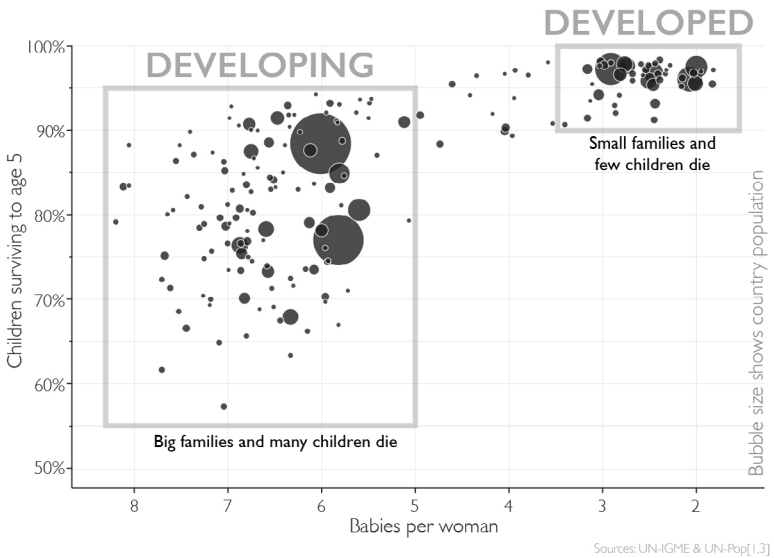
When people say “developing” and “developed,” what they are probably thinking is “poor countries” and “rich countries.” I also often hear “West/rest,” “north/south,” and “low-income/high-income.” Whatever. It doesn't really matter which terms people use to describe the world, as long as the words create relevant pictures in their heads and mean something with a basis in reality. But what pictures *are* in their heads when they use these two simple terms? And how do those pictures compare to reality?

Let's check against the data. The chart on the next page shows babies per woman and child survival rates for all countries.

Each bubble on the chart represents a country, with the size of the

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bubble showing the size of the country's population. The biggest bubbles are India and China. On the left of the chart are countries where women have many babies, and on the right are countries 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.

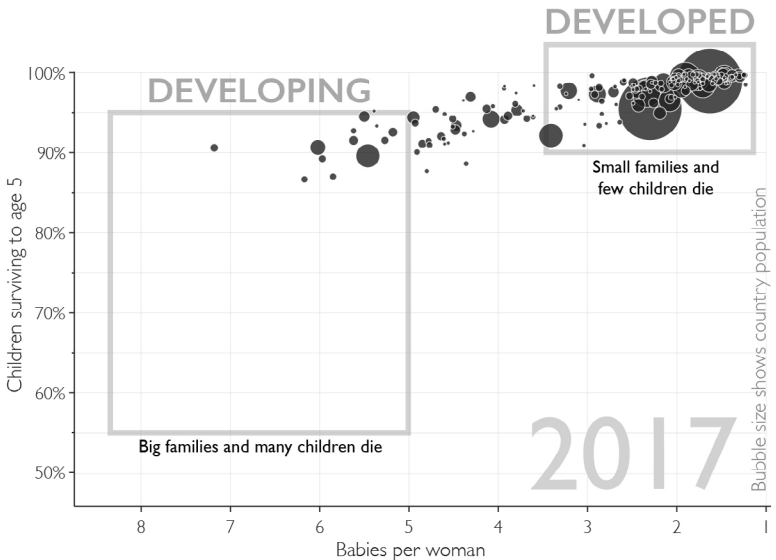


Look how nicely the world's countries fall into the two boxes: developing and developed. And between the two boxes there is a clear gap, containing just 15 small countries (including Cuba, Ireland, and Singapore) where just 2 percent of the world's population lives. In the box labeled "developing," there 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.



Sources: UN-IGME, UN-Pop[1,3] & Gapminder[6]

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.

NOTES

Child mortality. The child mortality data used in the 1995 lecture came from UNICEF[1]. In this book we have updated the examples and use the new mortality data from UN-IGME.

Bubble charts. The bubble charts on family size and child survival rates in 1965 and 2017 use data from UN-Pop[1,3,4] and UN-IGME. An interactive version of the chart is freely available here: gapm.io/voutdvw.

Low-income countries. Gapminder has asked the public in the United States and Sweden how they imagine life in “low-income countries” or “developing countries.” They systematically guessed numbers that would have been correct 30 or 40 years ago. See gapm.io/rdev.

The primary school completion rate for girls is below 35 percent in just three countries. But for all three, the uncertainty is high and the numbers are outdated: Afghanistan (1993), 15 percent; South Sudan (2011), 18 percent; Chad (2011), 30 percent. Three other countries (Somalia, Syria, and Libya) have no official number. The girls in these six countries suffer under severe gender inequality, but in total they make up only 2 percent of all girls of primary school age in the world, based on UN-Pop[4]. Note that in these countries, many boys are also missing school. See gapm.io/twmedu.

Income levels. The numbers of people on the four income levels have been defined by Gapminder[8] based on data from PovcalNet and forecasts from IMF[1]. Incomes are adjusted for Purchasing Power Parity \$ 2011 from ICP. See gapm.io/fwlevels.

The graphs showing people distributed by income, comparing incomes in Mexico and the United States in 2016, are based on the same data, slightly adjusted to align with the shape of the distributions from the latest available national income surveys. Brazil’s numbers come from World Bank[16], PovcalNet, slightly adjusted to better align with CETAD. See gapm.io/ffinex.

Throughout the book, when talking about personal income levels and countries' average incomes, we use a doubling scale. Doubling (or logarithmic) scales are used in many situations when comparing numbers across a large range, or when small differences between small numbers are as important as big differences between big numbers. It's a useful scale when it is not the size of the pay rise that matters, but the size of the rise in relation to what you had before. See gapm.io/esca.

“Developing countries.” Here is the World Bank announcing its plan to phase out the use of the term “developing world,” five months after I explicitly challenged its outdated terminology: <https://blogs.worldbank.org/opendata/should-we-continue-use-term-developing-world>. See World Bank[15].

Large parts of the UN still use the term “developing countries”, but there's no common definition. The UN Statistic Division (2017) uses it for something it calls “statistical convenience” and finds it convenient to classify as many as 184 countries as developing (including Qatar and Singapore, two of the healthiest and richest countries on the planet).

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