

Why Expert Predictions Fail and Why We Believe Them Anyway

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INTRODUCTION

"The end of everything we call life is close at hand and cannot be evaded."

H.G. Wells, 1946

George Edward Scott, my mother's father, was born in an English village near the city of Nottingham. It was 1906. We can be sure that anyone who took notice of George's arrival in the world agreed that he was a very lucky baby.

There was the house he lived in, for one thing. It was the work of his father, a successful builder, and it was, like the man who built it, correct, confident, and proudly Victorian. Middle-class prosperity was evident throughout, from the sprawling rooms to the stained-glass windows and the cast-iron bathtub with a pull-cord that rang a bell downstairs. A maid carrying a bucket of hot water would arrive in due course.

And there was the country and the era. Often romanticized as the "long Edwardian summer," Britain at the beginning of the twentieth century was indeed a land of peace and prosperity, if not strawberries and champagne. Britain led the world in industry, science, education, medicine, trade, and finance. Its empire was vaster than any in history, its navy invincible. The great and terrible war with Napoleon's France was tucked away in dusty history books and few worried that its like would ever come again.

It was a time when "Progress" was capitalized. People were wealthier. They ate better and lived longer. Trade, travel, and communication steadily expanded, a process that would be called, much later, globalization. Science advanced briskly, revealing nature's secrets and churning out technological marvels, each more wonderful than the last, from the train to the telegraph to the airplane. The latest of these arrived only four years before George Scott was born, and in 1912, when George was six, his father gathered the family in a field to witness the miracle of a man flying through the air in a machine. The pilot waved to the gawkers below. "Now I've seen it," George's grandmother muttered. "But I still don't believe it."

And the future? How could it be anything but grand? In 1902, the great American economist John Bates Clark imagined himself in 2002, looking back on the last hundred years. He pronounced himself profoundly satisfied. "There is certainly enough in our present condition to make our gladness overflow" and to hope that "the spirit of laughter and song may abide with us through the years that are coming," Clark wrote. The twentieth century had been a triumph, in Clark's imagining. Technology had flourished, conflict between labour and capital had vanished, and prosperity had grown until the slums were "transformed into abodes of happiness and health." Only trade had crossed borders, never armies, and in the whole long century not a shot had been fired in anger. Of course this was only to be expected, Clark wrote, even though some silly people in earlier generations had actually believed war could happen in the modern world – "as if nations bound together by such economic ties as now unite the countries of the world would ever disrupt the great industrial organism and begin fighting."¹

At the time, Clark's vision seemed as reasonable as it was hopeful, and it was widely shared by eminent persons. "We can now look forward with something like confidence to the time when war between civilized nations will be as antiquated as the duel," wrote the esteemed British historian, G.P. Gooch, in 1911.² Several years later, the celebrated *Manchester*

Guardian journalist H.N. Norman was even more definitive. "It is as certain as anything in politics can be, that the frontiers of our modern national states are finally drawn. My own belief is that there will be no more wars among the six Great Powers."³

One day, a few months after H.N. Norman had declared the arrival of eternal peace, George Scott fetched his father's newspaper. The top story was the latest development in the push for Irish home rule. Below that was another headline. "War Declared," it read.

It was August 1914. What had been considered impossible by so many informed experts was now reality. But still there was no need to despair. It would be "the war to end all wars," in H.G. Wells's famously optimistic phrase. And it would be brief. It has to be, wrote the editors of the *Economist*, thanks to "the economic and financial impossibility of carrying out hostilities many more months on the present scale."⁴

For more than four years, the industry, science, and technology that had promised a better world slowly ground millions of men into the mud. The long agony of the First World War shattered empires, nations, generations, and hopes. The very idea of progress came to be scorned as a rotten illusion, a raggedy stage curtain now torn down and discarded.

In defeated Germany, Oswald Spengler's dense and dark *Decline of the West* was the runaway best-seller of the 1920s. In victorious Britain, the Empire was bigger but the faith in the future that had sustained it faded like an old photograph left in the sun. The war left crushing debts and the economy staggered. "Has the cycle of prosperity and progress closed?" asked H.G. Wells in the foreword to a book whose title ventured an even bleaker question: *Will Civilisation Crash?* Yes to both, answered many of the same wise men who had once seen only peace and prosperity ahead. "It is clear now to everyone that the suicide of civilization is in progress," declared the physician and humanitarian Albert Schweitzer in a 1922 lecture at Oxford University. It may have been "the Roaring Twenties" in the United States – a time of jazz, bathtub gin, soaring stocks, and real estate speculation – but it was a decade of gloom in Britain. For those

who thought about the future, observes historian Richard Overy, "the prospect of imminent crisis, a new Dark Age, became a habitual way of looking at the world."⁵

My grandfather's fortunes followed Britain's. His father's business declined, prosperity seeped away, and the bathtub pull-cord ceased to summon the downstairs maid. In 1922, at the age of fifteen, George was apprenticed to a plumber. A few years later, bowing to the prevailing sense that Britain's decline was unstoppable, he decided to emigrate. A coin toss – heads Canada, tails Australia – settled the destination. With sixty dollars in his pocket, he landed in Canada. It was 1929. He had arrived just in time for the Great Depression.

A horror throughout the industrialized world, the Great Depression was especially savage in North America. Half the industrial production of the United States vanished. One-quarter of workers were unemployed. Starvation was a real and constant threat for millions. Growing numbers of desperate, frightened people sought salvation in fascism or communism. In Toronto, Maple Leaf Gardens was filled to the rafters not for a hockey game but a Stalinist rally, urging Canadians to follow the glorious example of the Soviet Union. Among the leading thinkers of the day, it was almost a truism that liberal democracy and free-market capitalism were archaic, discredited, and doomed. Even moderates were sure the future would belong to very different economic and political systems.

In 1933, the rise to power of the Nazis added the threat of what H.G. Wells called the "Second World War" in his sci-fi novel *The Shape of Things to Come*. Published the same year Adolf Hitler became chancellor of Germany, *The Shape of Things to Come* saw the war beginning in 1940 and predicted it would become a decade-long mass slaughter, ending not in victory but the utter exhaustion and collapse of all nations. Military analysts and others who tried to imagine another Great War were almost as grim. The airplanes that had been so wondrous to a young boy in 1912 would fill the skies with bombs, they agreed. Cities would be pulverized. There would be mass psychological breakdown and social disintegration.

In 1934, Britain began a rearmament program it could not afford for a war that, it increasingly seemed, it could not avoid. In 1936, as Nazi Germany grew stronger, the program was accelerated.

A flicker of hope came from the United States, where economic indicators jolted upward, like a flat line on a heart monitor suddenly jumping. It didn't last. In 1937, the American economy plunged again. It seemed nothing could pull the world out of its death spiral. "It is a fact so familiar that we seldom remember how very strange it is," observed the British historian G.N. Clark, "that the commonest phrases we hear used about civilization at the present time all relate to the possibility, or even the prospect, of its being destroyed."⁶

That same year, George Scott's second daughter, June, was born. It is most unlikely that anyone thought my mother was a lucky baby.

The Second World War began in September 1939. By the time it ended in 1945, at least forty million people were dead, the Holocaust had demonstrated that humanity was capable of any crime, much of the industrialized world had been pounded into rubble, and a weapon vastly more destructive than anything seen before had been invented. "In our recent history, war has been following war in ascending order of intensity," wrote the influential British historian Arnold Toynbee in 1950.⁷ "And today it is already apparent that the War of 1939–45 was not the climax of this crescendo movement." Ambassador Joseph Grew, a senior American foreign service officer, declared in 1945 that "a future war with the Soviet Union is as sure as anything in this world."⁸ Albert Einstein was terrified. "Only the creation of a world government can prevent the impending self-destruction of mankind," declared the man whose name was synonymous with genius.⁹ Some were less optimistic. "The end of everything we call life is close at hand and cannot be evaded," moaned H.G. Wells.¹⁰

Happily for humanity, Wells, Einstein, and the many other luminaries who made dire predictions in an era W.H. Auden dubbed "The Age of Anxiety" were all wrong. The end of life was not at hand. War did not

come. Civilization did not crumble. Against all reasonable expectation, my mother turned out to be a very lucky baby, indeed.

Led by the United States, Western economies surged in the post-war decades.¹¹ The standard of living soared. Optimism returned, and people expressed their hope for a brighter future by getting married earlier and having children in unprecedented numbers. The result was a combination boom – economic and baby – that put children born during the Depression at the leading edge of a wealth-and-population wave. That's the ultimate demographic sweet spot. Coming of age in the 1950s, they entered a dream job market. To be hired at a university in the early 1960s, a professor once recalled to me, you had to sign your name three times "and spell it right twice." Something of an exaggeration, to be sure. But the point is very real. Despite the constant threat of nuclear war, and lesser problems that came and went, children born in the depths of the Great Depression – one of the darkest periods of the last five centuries – lived their adult lives amid peace and steadily growing prosperity. There has never been a more fortunate generation.

Who predicted that? Nobody. Which is entirely understandable. Even someone who could have foreseen that there would not be a Third World War – which would have been a triumph of prognostication in its own right – would have had to correctly forecast both the baby boom and the marvellous performance of post-war economies. And how would they have done that? The baby boom was caused by a post-war surge in fertility rates that sharply reversed a downward trend that had been in place for more than half a century. Demographers didn't see it coming. No one did. Similarly, the dynamism of the post-war economies was a sharp break from previous trends that was not forecast by experts, whose expectations were much more pessimistic. Many leading economists even worried that demobilization would be followed by mass unemployment and stagnation.¹² One surprise after another. That's how the years unfolded after 1945. The result was a future that was as unpredictable as it was delightful – and a generation born at what seemed

to be the worst possible time came to be a generation born at the most golden of moments.

The desire to know the future is universal and constant, as the profusion of soothsaying techniques in human cultures – from goats' entrails to tea leaves – demonstrates so well. But certain events can sharpen that desire, making it fierce and urgent. Bringing a child into the world is one such force. What will the world be like for my baby? My great-grandfather undoubtedly asked himself that question when his little boy was born in 1906. He was a well-read person, and so he likely paid close attention to what the experts said. George Edward Scott was a very lucky baby, he would have concluded. And any intelligent, informed person would have agreed. Thirty-one years later, when my grandfather held his infant daughter in his arms, he surely asked himself the same question, and he, too, would have paid close attention to what the experts said. And he would have feared for her future, as any intelligent, informed person would have.

My great-grandfather was wrong. My grandfather was wrong. All those intelligent, informed people were wrong. But mostly, the experts were wrong.

They're wrong a lot, those experts. History is littered with their failed predictions. Whole books can be filled with them. Many have been.

Some failed predictions are prophecies of disaster and despair. In the 1968 book *The Population Bomb*, which sold millions of copies, Stanford University biologist Paul Ehrlich declared "the battle to feed all of humanity is over. In the 1970s, the world will undergo famines – hundreds of millions of people will starve to death in spite of any crash programs embarked upon now." But there weren't mass famines in the 1970s. Or in the 1980s. Thanks to the dramatic improvements in agriculture collectively known as "the Green Revolution" – which were well underway by the time Ehrlich wrote his book – food production not only kept up with population growth, it greatly surpassed it. Ehrlich thought that was utterly impossible. But it happened. Between 1961 and 2000, the world's

population doubled but the calories of food consumed per person increased 24 per cent. In India, calories per person rose 20 per cent. In Italy, 26 per cent. In South Korea, 44 per cent. Indonesia, 69 per cent. China had experienced a famine that killed some 30 million people in the dark years between 1959 and 1961, but in the 40 years after that horror China's per capita food consumption rose an astonishing 73 per cent. And the United States? In the decades after *The Population Bomb* was published, fears that people would not get enough to eat were forgotten as American waistlines steadily expanded. The already-substantial consumption of the average American rose 32 per cent, and the United States became the first nation in history to struggle with an epidemic of obesity.¹⁵

In 1977, President Jimmy Carter called for the "moral equivalent of war" to shift the American economy off oil because, he said, the production of oil would soon fail to keep up with demand. When that happened, oil prices would soar and never come down again – the American economy would be devastated and the American dream would turn brown and die like an unwatered suburban lawn. Eight years later, oil prices fell through the floor. They stayed low for two decades.

A small library could be filled with books predicting stock market crashes and economic disasters that never happened, but the giant of the genre was published in 1987. The hardcover edition of economist Ravi Batra's *The Great Depression of 1990* hit the top spot on the *New York Times* best-seller list and spent a total of ten months on the chart; the paperback stayed on the list for an astonishing nineteen months. When the American economy slipped into recession in 1990, Batra looked prophetic. When the recession proved to be mild and brief, he seemed less so. When the 1990s roared, he looked foolish, particularly when he spent the entire decade writing books predicting a depression was imminent.

In 1990, Jacques Attali – intellectual, banker, former adviser to French president François Mitterrand – published a book called *Millennium*, which predicted dramatic change on the other side of the year 2000. Both the United States and the Soviet Union would slowly lose their superpower

status, Attali wrote. Their replacements would be Japan and Europe. As for China and India, they "will refuse to fall under the sway of either the Pacific or the European sphere," but it would be hard for these desperately poor countries to resist. Catastrophic war was "possible, even probable." However, Attali cautioned, this future isn't quite chiselled in stone. "If a miracle were to occur" and China and India were to be "integrated into the global economy and market, all strategic assumptions underpinning my prognostications would be overturned. That miracle is most unlikely." Of course, that "miracle" is precisely what happened. And almost nothing Attali predicted came true.

Even economists who win Nobel Prizes have been known to blow big calls. In 1997, as Asian economies struggled with a major currency crisis, Paul Krugman – *New York Times* columnist and winner of the Nobel in 2008 – worried that Asia must act quickly. If not, he wrote in *Fortune* magazine, "we could be looking at a true Depression scenario – the kind of slump that 60 years ago devastated societies, destabilized governments, and eventually led to war." Krugman's prescription? Currency controls. It had to be done or else. But mostly, it wasn't done. And Asia was booming again within two years.

Pessimists have no monopoly on forecasting flops, however. Excited predictions of the amazing technologies to come – Driverless cars! Robot maids! Jet packs! – have been dazzling the public since the late nineteenth century. These old forecasts continue to entertain today, though for quite different reasons. And for every bear prophesying blood in the stock markets, there is a bull who is sure things will only get better. The American economist Irving Fisher was one. "Stock prices have reached what looks like a permanently high plateau," the esteemed economist assured nervous investors. "I do not feel there will soon be, if ever, a 50 or 60 point break from present levels, such as they have predicted. I expect to see the stock market a good deal higher within a few months." That was October 17, 1929. The market crashed the following week. But that crash was none of Britain's concern, the legendary John Maynard Keynes