Synopsis

HOW TO EVOLVE AND HOW NOT TO introduces us to an entirely new way of acting in the world — one that allows us to decide where we're going as a species.

The author blends his own personal history and cutting-edge evolutionary science to tell a spellbinding story of humanity's past and future.

Until recently, evolution was a slow, relentless, and impersonal force acting over millions of years. This understanding has undergone a stunning revolution in the last two decades.

We now know we inherit far more than our genes — including culture, economics, and politics — all shaped by evolutionary forces we can direct. This allows us to articulate a new strategy for deliberately building communities harnessing the power of evolution.

The book sketches a new culture of culture, a new economics based on meeting energy needs, and a social contract for politics grounded in biological, digital, and equity rights — concluding with a new practice of evolution to get us there.

Evolution is fast becoming something we can do. We are moving from being mere spectators to players in the game of life.

How To Evolve

And How Not To

By Zaid Hassan

Without fear
Love plunges into the tyrant's fire.
Meanwhile, on a corner of the roof
Intelligence sits
Contemplating the spectacle.

– Allama Mohammed Iqbal

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Part One – Conception

Can We Deliberately Evolve?

Chapter One

The Trouble with Cyclones, Famines, Pogroms, and Wars

What my Grandparents Saw

My father, Zulfuqqar, is named after the legendary double-bladed sword of the Prophet Mohammed. He was born in Calcutta¹, in the great Indian state of Bengal, in either 1945 or 1946. We don't know the exact date as there was a lot going on at the time. He claims to have been partially raised by a monkey, who came to look after him every day.

The Imperial Japanese Army invaded Burma in the winter of 1941. By March 1942 it had conquered the entire country, in the process cutting off critical supplies to Bengal. The British, preoccupied with the war in Europe, paid little attention². That same month, the Quit India movement launched with a slogan of "do or die", aiming to drive the British out of the country after two centuries of colonial rule.

In October 1942 a huge cyclone made landfall in Midnapore, a low-lying district immediately south-west of Calcutta, close to the Bay of Bengal. The storm, and the following storm surge, killed between forty and sixty thousand people. It also destroyed the rice crop and livestock, making it one of the deadliest cyclones in history (but not the deadliest, as we shall see).

A few months later, one Sunday in December 1942, the faint sound of aircraft was heard in the streets of Calcutta, slowly getting louder. Air raid sirens suddenly sounded. Flak guns opened up into the clear sunny skies. The Japanese unexpectedly bombed Calcutta³, then a city of between two and three million people, killing many hundreds. There was widespread panic. Those first bombs fell

within hundreds of metres of my grandparents' home on Central Avenue. At some point they decamped to Champadanga, a small, rural market town just outside the city.

Far worse was coming. By the middle of 1943, famine gripped the countryside, even though there was no drought. Rice continued to be shipped out of India to aid the British war effort⁴. "Destitutes", as rural famine victims were called, flooded into Calcutta, hoping to find food and help. Thousands and thousands died of starvation in the city. Photos show emaciated bodies lying next to the dead on the streets. The British imposed a news blackout. An estimated three to four million people died in what was later called "The Great Bengal Famine⁵".

These events accelerated the end of the British Empire. As the British began their disorderly withdrawal, violence flared across India. In its long colonial history, India had seen plenty of violence, from the Great Mutiny in 1857 to the Jallianwala Bagh massacre in 1919⁶. However, the three days between 16th and 19th August 1946 gave birth to something terrible and new.

In what was later, in grim tedium, called "The Great Calcutta Killing", a pogrom unfolded. One American journalist described the scene as "Holocaust-like", with dead bodies stacked two stories high in the streets. An estimated ten thousand people were killed by mobs, Hindu mobs killing Muslims and Muslim mobs killing Hindus⁷, in a spiral of violence unfolding over just three days. My father was likely born a few months later.

Events were to repeat, amplified a hundredfold, a year later, leading to Partition⁸ in 1947 and the creation of two new nation-states: independent India and Pakistan. A million people were murdered. Tens of thousands of women were raped; many were abducted. Millions fled their ancestral homes in the largest

population displacement in recorded history.9.

My family continued to live sporadically in Calcutta for a few years after Partition. The centre of gravity for most of them had shifted east, to the newly formed country of East Pakistan, created by cleaving the state of Bengal in half. The predominantly Hindu western part of the state remained in India, while the predominantly Muslim eastern part became a part of East Pakistan.

My mother tells a story of an aunt trying to fly back to Calcutta soon after, but communal riots, mainly between Hindus and Muslims, meant the flight was cancelled. She was forced to take the train, wearing a bindi, pretending to be Hindu. As unrest persisted, my family were forced to flee intermittently, returning each time. My father remembers eating cornflakes in a refugee camp, probably in East Pakistan, before going back home to Calcutta. Then, in the early 1950s, following my paternal grandfather's death, most of the family left India for good.

What my Parents Saw

Twenty-four years after Partition, both sides of my family found themselves living in the port city of Chittagong in East Pakistan, on the Bay of Bengal, about two hundred miles east of Calcutta. The old ghosts of the subcontinent, though, were not done with them. There was another cyclone, another war, and another pogrom to survive.

The Great Bhola Cyclone made landfall on 12 November 1970, less than one hundred miles west of Chittagong. Bhola is estimated to have resulted in a staggering three hundred to five hundred thousand casualties, mostly from the storm surge that followed, and Chittagong was among the places it battered. It has been called the deadliest cyclone in history. My father recalls a single image

from the storm: a lonely ceiling fan suspended from a wooden beam. The roof of the building had blown off.

The relief effort from the Pakistani government, headquartered in West Pakistan, was disgraceful. There was an initial news blackout, such that even in the capital Dhaka, about 150 miles north of Chittagong, few people were aware of what had happened. When the authorities acted, they did so grudgingly and with disdain. Pakistani Army officers, from West Pakistan, in spotless dress whites were reported to have played badminton surrounded by waterlogged fields filled with thousands of dead bodies¹⁰.

The first national elections since Partition were held a month later. The Bengali leader, Sheikh Mujibur Rahman won by a land-slide, giving his party the Awami League an overall majority. The ruling authorities in West Pakistan, mostly Punjabi and Sindhi, who looked down on the Bengalis, refused to accept the results. The West Pakistani response to Bhola led to the Awami League's land-slide victory, which in turn led to the nullification of the elections. These factors created the conditions for civil war the following year.

The Bengalis of East Pakistan called this the 1971 War of Liberation. It resulted in the creation of Bangladesh. Soon after the elections were annulled the Pakistani Army launched pogroms against the Bengali population. This included targeting intellectuals, politicians, student leaders, and anyone deemed to be agitating against the Pakistani military junta. The Indian Army entered the war on the Bangladeshi side. Estimates of casualties vary from several hundred thousand to three million. Once again, many millions more were displaced, including both sides of my family.

A couple of summers ago, my mother's side of the family all came

together for the first time in a few decades, for a family wedding in Istanbul. Late one night, in a small alleyway outside our hotel, I convinced my younger cousins to help set up a rough circle of chairs. I told my parents, my uncles, and my aunts that I wanted them to come sit, and we would talk. Somewhat reluctantly, despite some attempts to escape, they agreed. One of my mum's sisters, my aunt, asked me what it was about. I said, "1971." "I remember nothing," she murmured softly, even as she sat with us.

By the time everyone was finally gathered, steaming cups of Turkish tea in their hands, surrounded by sleeping cats, it was late, close to midnight. Everyone was tired, defences lowered. I asked them to tell us what happened in 1971. They had not spoken about those events in the half a century since they had happened. Three generations sat listening. Their bemusement soon turned to horror.

Slowly, with some hesitation, the stories started to flow. We heard stories of witnessing murder, of weapons hidden under beds and rampaging mobs in the streets. We heard stories of neighbours standing between mobs and our family, refusing to allow entry. We heard rumours - of mass killing, of things that happened to school friends and distant family, some of whom were never heard of again. There were flashes of anger, hints of deep disagreements between those who witnessed these events. Most of all, though, there was sadness.

The stories, and the storytelling, ended with an account of the family fleeing on the last steamer out of Chittagong, the Safina-e-Arab, into the Bay of Bengal. They rounded the Southernmost tip of India, into the Arabian Sea, landing in the distant port city of Karachi, a sea voyage of over two thousand miles. Then, in the months and years following, many, including my newly married parents, continued to London and Indianapolis and Riyadh and

Toronto. Their Calcutta community became a global diaspora. I was born into this diaspora.

Later that night, I spoke to my aunt. It turned out she had the clearest and sharpest of memories. "So you remembered, huh?" She sighed and said, "Beta, ye sab baat kaun bhool saktahai," or, "Son, who can forget these things...?"

What I Saw

The first time I went to Calcutta was in the early 1980s. I was eight or nine years old. We had just moved from London, where I was born, to Bombay and then New Delhi. We were visiting relatives who had never left Calcutta. There was still a flavour of old Calcutta about, much of which has since disappeared.

I remember riding in a rickshaw pulled by a man running barefoot. He dragged us, running between two well-worn, dark wooden beams attached to the carriage we sat in. I have a vague memory of staring at the back of his head as he ran. He was an old, sunburned man with salt and pepper hair and sinewy muscles, propelling us along the crowded streets at speed. That night I remember seeing thousands of people sleeping silently out in the open, on the cooling streets.

I had absolutely no idea of how much blood had been washed from those pavements. I had no idea of what my grandparents, my uncles, and my aunts had seen when they looked out of their Calcutta windows over those undoubtedly long, difficult years. I had no idea of what my parents were born into. I had no idea of what they felt. I still have no idea of what it meant to raise a child in such times. I had no idea of what it meant to grow up surrounded by such events. I had no idea of what my family experienced. I had no idea of what, let alone how, they survived. I had no idea of

how these events profoundly shaped my own life.

Those of us who have never come close to forces like these struggle to imagine what it is and what it takes to live through their confluence. We have no idea. We live in precarious, privileged ignorance. We believe it will never happen to us. Then it happens. I've described elsewhere the scenes of communal violence I witnessed as a twelve-year-old in 1984 Delhi¹¹. The assassination of the Prime Minister Indira Gandhi by her Sikh bodyguards led to the murder of between eight thousand and seventeen thousand Sikhs. Many were targeted by roving mobs and burnt alive on the streets. "India hasn't changed," said my parents as we packed up and left for Abu Dhabi, after a scant four years in India.

The pogroms never really stopped¹². In 1964, following the theft of a relic from the Hazratbal Shrine in Srinagar, several thousand people died in a pogrom and a further eight hundred thousand Muslims (one in fifty Indian Muslims) departed India for Pakistan. Then in 2004, the Gujarat pogrom left over two thousand Muslims dead, displacing almost two hundred thousand. Just a year later, I travelled across the state overnight by bus. A friend, dropping me off at the bus station in Nashik, Maharashtra, gently suggested I tell anyone who asked that my name was Amit, hiding my Muslim identity. For all the talk of "India Shining", a nationalist slogan coined with the rise of the BJP, in very troubling ways, India had indeed not changed.

In 1984 we moved from New Delhi to Abu Dhabi. The contrast was tremendous. Despite its name, New Delhi is built around one of the oldest cities in the world, Purani Delhi¹³, or Old Delhi. Sometimes called the City of Jinns¹⁴, it is several millennia old, with a super dense network of grime-caked alleyways home to generations of legendary cooks and crooks, courtesans and musicians, poets and

royalty.

Abu Dhabi, in sharp contrast, was a newly minted, sleepy coastal petrostate of a city, barely two decades old. It had shiny new roads, glass skyscrapers covered in a molecular layer of drifting sand, and relatively few people. Prior to the discovery of oil in the 1970s, it had housed a small community of Bedouin, fishermen, and pearl divers. Some of its rulers were rumoured to drive their four-wheel-drive vehicles out from their shining new palaces into the dark desert every night to sleep under stars, where they felt more comfortable.

Saddam Hussein invaded Kuwait, about a twelve-hour drive from us. Fear gripped the city, with people saying that Saddam was going to keep going, that he was going to cut through Saudi Arabia like a knife through warm butter. The war was going to come to the Emirates. He didn't. The war did – just not by any road we imagined.

Six months later, I was witnessing preparations for war: Operation Desert Storm, later known as the First Gulf War. One morning the streets were flooded with thousands of young Marines, passing by on their way to Saudi Arabia, from which they were preparing to liberate Kuwait. They had come off US naval vessels docked in the port. We sometimes played table tennis together. Many were African American and just a few years older than me.

Late at night, from my third-floor bedroom window, I watched passing military convoys, consisting of enormous missiles, tanks, and other unidentifiable weapons on flatbed trucks covered by tarpaulin. It took hours and hours for them to pass. I tuned in to Radio Desert Sands, the official US Forces radio station, which belted out college hits to accompany the troops and the armour. Ironically, the street we lived on was called Salam Street, or "Peace" Street.

During the day we talked about rumours that an Iraqi Scud missile had landed somewhere in the city. With the certainty of teens, we scornfully dismissed Scuds as flying bathtubs, nothing to worry about. Little did we know that Desert Storm would kick off decades of regional instability, resulting in the death of hundreds of thousands of Iraqis and the displacement of several million people.

The Gulf War entered our lives, rather unexpectedly and directly, through the front door, in the form of two plain-clothed policemen. In the summer of 1991, my twin sister and I moved to London, to finish college. One night, Abu called. "I can't talk," he said, "but can you get me the number of the Middle East desk at Amnesty?" "But Abu, why?" I remember asking. He repeated that he couldn't talk and hung up.

It turned out that he had told his boss,

that he wanted to move back to London. His boss said no, we need you here. Send your family back and visit them once a year. Abu said, no, I can't do that, I have a young family. My younger sister was twelve and my brother was just one. Turns out you don't say no to

A few nights later, there was a knock on the front door of our apartment. It was two plain-clothed policemen. They took his passport.

personally took the trouble to shout down the phone that if my dad tried to leave the country, they would lock him up and throw away the key. The British Embassy staff unhelpfully explained that

This meant that they would not intervene in a dispute with

After issuing him with a fresh new passport, they reiterated they could not help. Without an entry stamp in the passport, he could not legally exit the country. He was on his own.

My twin and I flew back to Abu Dhabi for the summer of 1992. We packed up the apartment and said a final goodbye to our friends. I remember hanging out in the now-empty living room with my friends, throwing a ball off the echoing white walls. It would be decades before I saw them again.

We moved temporarily to Dubai, hoping to delay any potential police action. What followed was a few months of intense stress for the adults and intense boredom for us kids. We knew no one in Dubai, at the time a small, dusty town of about half a million people with not a lot happening. I remember sitting alone on a burning pavement in the middle of a scorching afternoon with nothing to do. Everyone else was having a siesta inside. I sat there wondering what the hell was going on.

Abu started taking long walks across the city after sunset. Sometimes these walks lasted three or four hours. Sometimes one of us kids went with him. It was cooler but still sweltering. We had to dodge drops of water dripping onto the pavement from all the external air conditioners bolted to the outside of apartments. On one of these walks, Abu ran into a friend of his on the street, a Chief of Police from Oman. After hearing what was going on, the policeman said, "Don't worry, I'll get you out."

His friend told him to put my twin sister and me on a plane to

Karachi immediately. We rapidly packed and were whisked to the airport and put on a flight. He told Abu not to tell anyone else anything. He was then to meet his friend, with my mum and my two younger siblings, the next day. That's all we knew.

At my grandmother's house in Karachi, a mere two-hour flight away, we waited silently by the phone. Hours and hours passed. I remember my mum's older brother, my uncle Mammojan, saying, "It will be ok." We had no idea what was happening. Not knowing, without saying the words, whether we would ever see Abu again.

The phone eventually rang. They were safe in Muscat. Abu's friend had bluffed them through a remote border post, yelling at some guards who wanted to know why there was no entry stamp in his passport. They had literally fled across the desert and escaped. Two days later, we met them at Karachi airport. A few days after that, we were back in South London, looking for a place to live. I was eighteen.

Footnotes For Part One

- I In 2001, after 329 years, Calcutta was renamed Kolkata in an ongoing effort to indigenise colonial-era names. The British ruled India for 190 years, between 1757 and 1947, a period referred to as the British Raj (or British "rule"). In 1905 the British decided to partition what was then called the Bengal Presidency, into West Bengal, with a predominantly Hindu population and Calcutta as its capital, and East Bengal, with a predominantly Muslim population and Dhaka as its capital. Their argument was that Bengal was too large a state to govern from a single administrative centre. There was fierce and widespread opposition to this move. It was seen as a way of fostering Hindu-Muslim conflict, but also of breaking up the power of Bengal, which was long an intellectual and cultural force in India. This move gave rise to the Swadeshi movement, which argued for "Swaraj", or home rule, and was arguably the first nationalist movement demanding Independence from British rule since the Great Mutiny of 1857. This "disastrous" partition of Bengal was reversed in 1919, when the capital was moved from Calcutta to Delhi in an attempt to draw attention away from nationalist forces in Bengal, which had, by then, become a hotbed of struggle against the British.
- 2 Churchill believed that the vast resources of the British Empire were at the service of what he called "Christian Civilisation". As such, his primary orientation during the Second World War was the question of how the territories and subjects of the British Empire could materially support the struggle against Nazi Germany and the Japanese. India was known as the "jewel in the

crown" of the Empire. Shashi Tharoor estimates that in 200 years of colonial rule, India's contribution to global GDP declined from 23% to 4%, arguing that the British Empire systematically deindustrialised India in the ultimate act of asset stripping. This asset stripping accelerated during the Second World War. 1941 and 1942 were the years that decided the outcome of the Second World War, particularly in Europe. Until 1942, it seemed that Hitler might prevail. The British were engaged in an existential struggle where troubles in the Asian theatre, including the subcontinent, were always secondary to the question of who would prevail in the European theatre. Events unfolding during 1942 ultimately decided the fate of Britain, and so of the entire British Empire. Churchill spent most of 1942 with his head deeply buried in the American trough, brown-nosing and begging for help. While the entry of the Americans was an obvious game-changer, Churchill took for granted that Indian lives could be expended without thought or consent. In this context, the death of millions of Bengalis from famine was at best an unavoidable cost. Churchill is reported to have commented when informed about the Great Bengal Famine, "I hate Indians. They are a beastly people with a beastly religion," and if there was any doubt, they were "the beastliest people in the world next to the Germans". The staggering death count may even have been a good thing in Churchill's unashamedly racist calculus. Leo Amery, The Leo Amery Diaries: The Empire at Bay, 1929–1945. Edited by John Barnes and David Nicholson. (London: Hutchinson, 1988.)

David Lockwood, *Calcutta under Fire: The Second World War Years.* (New Delhi: Rupa Publications India Pvt. Ltd., 2019.)

- 4 The causes of the famine are fiercely debated. Madhusree Mukerjee and Cormac Ó Gráda both make the case that the British and in particular Churchill were responsible, in, respectively, Madhusree Mukerjee, Churchill's Secret War: The British Empire and the Ravaging of India during World War II (New York: Basic Books, 2010 and Cormac Ó Gráda, Eating People Is Wrong, and Other Essays on Famine, its Past, and its Future (Princeton: Princeton University Press, 2015). Churchill's racism and his disdain for Indians certainly provides us with circumstantial evidence that he couldn't care less about Indian lives. The great scholar Amartya Sen disagrees with the view that the British were primarily to blame, arguing the causes were more complex. For his analysis, see Amartya Sen, Poverty and Famines: An Essay on Entitlement and Deprivation. (Oxford: Oxford University Press, 1981.)
- 5 Janam Mukherjee, *Hungry Bengal: War, Famine, and the End of Empire.* (New York: Oxford University Press, 2015.)
- 6 Kim A. Wagner, Amritsar 1919: An Empire of Fear and the Making of a Massacre. (New Haven: Yale University Press, 2019.)
- 7 Tensions emerged along politico-religious lines, ultimately leading to the Partition of India into India and Pakistan in 1947, with Pakistan being created as an Islamic Republic. Then in 1971, Pakistan split into two countries, Pakistan and Bangladesh, with this split being along not religious but ethnic lines, defined partly by language. My family are Urdu-speaking Muslims. They are not native Bengali but immigrants to Bengal from other parts of India. India's population at the time of Partition (according to the 1941 census) was about 400 million, of which

290 million were Hindu, 90 million were Muslim, 6 million were Christian, 6 million were Sikhs, and the remaining 8 million were Buddhists, Jains, Parsis, Jews, and others. The reasons for religious violence in the years leading to Indian independence from the British are complex, with multiple competing theories.

Indian public intellectual Ashis Nandy argues that religious riots in India are a modern phenomenon, planned and organized acts of political violence as opposed to spontaneous expressions of religious difference. Religious riots, in other words, are not "communal violence" as they are often referred to, but "rent a riot" political actions deliberately organised by political groups. The division of Bengal is one such example of an action taken by the British that exacerbated communal tensions.

"Colonialism succeeds," Nandy writes, "partly by creating secular hierarchies and partly by intensifying the primordial identities of the colonized. It redefines community identities by fixing them, making them rigid and non-negotiable, thus setting the stage for future conflicts." (Ashis Nandy, *The Intimate Enemy: Loss and Recovery of Self Under Colonialism.* (Oxford: Oxford University Press, 1983). P. 81.)

See also Nicholas Dirks, Castes of Mind: Colonialism and the Making of Modern India. (Princeton: Princeton University Press, 2002). Manu S. Pillai, Gods, Guns and Missionaries: The Making of the Modern Hindu Identity. (London: Allen Lane, 2025.)

8 Nisid Hajari, *Midnight's Furies: The Deadly Legacy of India's Partition.* (Boston: Houghton Mifflin Harcourt, 2016.)

- 9 Yasmin Khan, *The Great Partition: The Making of India and Pakistan.* (New Haven: Yale University Press, 2017.)
- 10 For an account of the Great Bhola Cyclone, see Scott Carney and Jason Miklian, *The Vortex: The True Story of History's Deadliest Storm and the Liberation of Bangladesh.* (Delhi: HarperCollins, 2022.)
- II Zaid Hassan, The Social Labs Revolution: A New Approach to Solving our Most Complex Challenges. (San Francisco: Berrett-Koehler Publishers, Inc., 2014.)
- 12 Pratinav Anil, Another India: The Making of the World's Largest Muslim Minority, 1947–77. (London: Hurst Publishers, 2023.)
- Old Delhi was actually a walled city called Shahjahanabad, named after the Mughal Emperor Shah Jahan (also builder of the Taj Mahal) who built it in 1638. After the British moved their capital to Delhi, it was informally known as Old Delhi to distinguish it from New Delhi, built by the British in 1931.
- 14 William Dalrymple, City of Djinns: A Year in Delhi. (London: HarperCollins, 2014.)