

THE DAEDALUS PROJECT

BY WILLIAM MAZANITIS

*The human mind evolved to believe in the gods. It did not
evolve to believe in biology.*

Edward O. Wilson

CHAPTER 1

TOBY WILDER TOOK one last look around his office, packed his few personal belongings—a picture of his older brother Max and his parents from long ago, his laptop, a few papers—and bolted out of the room.

Within minutes he reached the chimp habitat. Taking an armful of bananas from the storehouse in the antechamber, he approached the wall of bars lining the artificial jungle. He heard the chimps stir deep inside the darkness and knew they'd quickly gather to receive their treats. Each chimp would approach him, take a banana from his hand, and retreat to a favorite place, the order determined by rank. First Brutus, the alpha male, then Cicero, Octavius, and so on. Then the females would approach according to their own rank.

He waited. His mind was in such turmoil that it took him a few moments to realize that the order had changed. All the chimps stood back as Cassandra approached first. She watched Toby as she held out a hand through the bars.

“So you're the alpha chimp now, Cassandra,” he said, trying to keep the quaking from his voice. “Good girl. It's about time.” He showed her a

banana but held it out of her reach. “You know what to do.”

Cassandra made a cooing sound then lifted her index finger. Toby felt the banana stir, then saw it rise in the air and float several yards into Cassandra’s hand. Though he’d witnessed her telekinetic powers countless times, it still filled him with awe. She showed him the familiar Mona Lisa smile, then jumped to a nearby rock to eat it.

What was he doing here? He should be preparing his escape, if escape was still possible. Still he couldn’t leave without saying a last goodbye to these chimps that he loved as if they were his own children.

His attention was brought back by Brutus who was standing at the metal bars waiting patiently for his banana. Brutus’ new genes had already been a major success. He’d had three surgeries to remove limbs—each arm and a leg had been completely severed—and each had grown back perfectly within weeks. Each chimp had its own particular abilities. Cicero’s ESP was extraordinary. In countless experiments, such as picking objects on a screen chosen by a technician on a similar screen in another room, he’d achieved perfect scores. Demosthenes was still trying to make sense of his ability to see in the UV spectrum. Diana could solve complex mathematical equations though she knew nothing of their meaning. Phaedra could reproduce a Rembrandt though she had no desire to paint a picture of her own. Diogenes showed no signs of aging and Apollo could view a heat signature through a brick wall. These were all rudimentary capabilities. The full power of these human genes could not be expressed by inserting them into chimp genomes. Still, it proved the model worked.

Toby gave Brutus the banana, and Brutus ran off into a tree with joyful howls. The rest of the chimps followed in the usual pecking order. Finally, only Cassandra remained on the nearby rock, calmly savoring her banana while watching Toby.

“I have to do it, Cassandra. If you had a few more human genes you

might even understand why.”

Cassandra approached the bars and he inserted his hand to stroke her. She made her usual gurgling sounds but then she focused on his chest. Or rather his gold cross, which he usually wore underneath his shirt. He touched the cross and said, “It’s beautiful, isn’t it? My mother gave an identical one to my brother when we were young.” He lifted it to show her.

She pointed to it with her index finger, and he felt a tug.

“No, Cassandra, I can’t give this to you.”

But the tug on the chain intensified, pulling Toby forward until his body was flush against the metal bars. Cassandra let out a cheerful howl.

A flash of fear passed over him. He didn’t want to let go of his mother’s gift, the one thing that had kept him safe all these years, but he knew Cassandra could overpower him by simply lifting a finger.

“All right,” he said, “you can have it. Let’s call it a parting gift.”

He took off the gold cross and handed it to her. She placed the chain over her head and let out a satisfied whimper. As Toby left the habitat his last vision was that of Cassandra’s cupped hands cradling the gold cross.

Now to Max, and my last chance at redemption. He hoped it wasn’t too late.

CHAPTER 2

MAX WILDER STARED down at the research paper spread on his desk and reviewed once more the assumptions, the logical steps of the argument, the inevitable conclusion. He saw no obvious flaws, but still he was unwilling to accept the implications. No matter how much he tried he couldn't intuitively grasp the math. It didn't matter that his whole life his father had told him that this branch of math was inherently counterintuitive. He thought he should be able to feel it if the solution were right. His instincts now told him the opposite: it not only felt wrong, but obscenely wrong.

He heard his father's words: "Math was created for the human mind to comprehend that which is not intuitive. Just follow the math and you won't lose your way, no matter where it leads you." His father, William Wilder, a revered Harvard professor of mathematics, had been a religious zealot about numbers. "Unlike your dog, your best friend, or God, math will never let you down."

Both his sons had let him down. Neither Max nor Toby had ever liked the higher dimensions of math their father delved into so easily. As Columbia's Goldfarb Professor of Genomics, Max needed some math. He

was adept at statistics, probability theory, even calculus, but not this chaos theory that made no inherent sense.

He ambled to a bookshelf crammed with thick tomes, reluctantly picked out a worn volume, and brought it to his desk. Under the light of the desk lamp he peered at the title and felt a chill run down the back of his neck. *Chaos Theory and Its Applications* by Professor William Wilder. Why did the subject cause him such anxiety? He was an adult now, he'd published hundreds of papers, earned numerous accolades, was sought for speaking engagements all over the world. Still, he trembled at the sight of his father's textbook.

All right, Dad, I'll give it one more try. But he knew it was a lost cause the moment he started rifling through the first few pages. His eyes began to glaze over. What was he thinking? There were mathematicians who couldn't follow chaos theory. Some didn't even believe in it. Still, he needed to make a decision on whether to present Rockford's paper at the Venice conference.

He remembered his last talk with Rockford in which Max had reluctantly agreed to present the paper even though he didn't believe the math. Allan Rockford, The Rock, the leader of his twelve graduate students—the “twelve apostles” as they called themselves—sat in Max's office last month with his unruly red hair, the stubbly chin, the intelligent eyes.

“Do you really believe any of this?” Max remembered asking, indicating the paper.

“There's a pattern. That's all I'm saying.” Rockford shifted in his seat.

“A pattern, even if it does exist, may not mean anything. And this is no ordinary pattern; it can't be seen by any computer models. Only by you.”

“No computer model uses fractals this way,” Rockford said. “I admit it's a little funky. But if true...”

They remained silent, staring at each other. It wasn't until Sheila—Max's secretary and mother hen to all the graduate students—walked in and said, "Go ahead, Max, let Allan have his day," that he agreed.

"All right, but you're presenting it. I want you there to defend it."

The Rock agreed, even though Max knew it would be his own name that would attract the heavy hitters at the Venice conference. In scientific circles pedigree mattered.

He now eyed the chess board on the side table, the pieces frozen in bellicose poses, awaiting orders that would never be issued. A patina of dust had accumulated on them over the ten years. The last game he'd played with his father. The last game he'd ever play.

On the bare living room floor he began his Tai Chi routine, his refuge whenever the insipid poisons of nostalgia and regret infiltrated his mind. The focus required for performing each slow-motion move with precision left no room for any other thought, especially nostalgia. Mountain climbers who depend on finding the next foothold or extreme skiers who plunge themselves from helicopters into unmapped virgin powder all answer with similar sentiments whenever asked why they do it: *It focuses the mind and, in doing so, gives me peace.*

He'd been studying the Yang style of Tai Chi since his teenage years, when his six-foot-two-inch frame had left him awkward and self-conscious. It had been his father who'd suggested that both brothers develop their bodies as well as their minds, a classical Greek model which William Wilder, himself, had never followed. The subtle grace and soft power of Tai Chi appealed to Max, while his brother Toby had chosen the more flashy Tae Kwon Do. But Tai Chi, contrary to popular notions, was the most powerful of all martial arts. While most people practiced it for its meditative and health benefits, a few, like Max, found masters who could teach the more arcane combat forms of this most revered of the internal

martial arts. His younger brother, with his outwardly violent Tae Kwon Do, had never been a match.

Having completed his routine, he poured himself a cup of coffee and sat in his favorite chair to watch the dawn make its furtive appearance. The anemic rays of the February sun were just beginning to penetrate the vast Soho apartment, one of those lofts that no one could find even if one could afford it. It had been handed down from his grandfather who'd bought it when Soho lofts were cheap and illegal. It formed the top floor of a six-story cast iron building built in the 1880s. Max had left much of the space open except for the walls separating the bedrooms and bathrooms. The weight-bearing pillars, which had been transformed into white Corinthian columns, gave the space the feeling of a temple.

He returned to the copy of the *Meditations* of Marcus Aurelius that lay on the side table and opened it where he'd left off. Max admired the *Meditations*, and not simply because it had been his father's favorite book. Max believed in the same approach to life as the writer, a man who took neither the pleasures nor the pains of existence seriously. Even with the best years of the Roman Empire behind him, Aurelius the Stoic still believed that all was just as the gods had intended. Max believed in the same equanimity toward life but parted company with his Roman friend as to the cause. Max had no belief in God. He simply dealt with what life had to offer, knowing that there was no rhyme or reason for anything. He wondered what old Marcus would think of the genome, the helter-skelter amalgamation of genes that cared nothing for the individual but only for their own propagation. Would he still believe in a world imbued with purpose? The *Meditations* inferred an intelligence behind it all, even an aesthetic—one Max was hard-pressed to find. Where was the aesthetic in the imperfections of the human body? You only had to look closely, and the design errors were right there, staring right at you: *Homo sapiens'* evolution to an

upright position, with a birth canal too narrow, caused the curse of Eve, the agonies of childbirth; the mouth, shared by both the respiratory and the alimentary tract, led to frequent choking; the chambers of the heart, arranged in series rather than in parallel, made the heart more vulnerable to failure. The list went on.

And then there were the myriad genetic diseases, errors in the DNA code. The genome was a palimpsest of vestigial genes, newly mutated genes with dubious benefit, redundancies, misprints, dormant viruses, ancient echoes of a checkered past. And the biggest joke of all: Over ninety-five percent of the genome, so-called “junk” DNA, didn’t code for any genes at all. Parts of this region contained the “switches” that controlled the expression of genes. But there were still large swathes of DNA whose function was totally unknown. By the laws of evolution this “junk” should have been discarded long ago. Random DNA with long stretches of repeating code that had no obvious purpose—how could anyone believe that God had created man in His divine image?

Max couldn’t think of the exact time that he’d rejected God and had started regarding humans as nothing more than randomly evolved DNA. It had been a gradual process. As a child his anxiety grew the more he learned of the mechanical nature of life. Even emotions—love, altruism, fear—were shown to be beneficial genetic adaptations explained by evolution. He wasn’t surprised that his love life had been a disaster. He was suspicious of all emotions, believing them to be simply his genes manipulating him to procreate and pass on the genetic code.

Despite Max’s mechanistic view of life, Aurelius’ words comforted him, partly because they offered an alternate world in which God might have a place, and partly because they had comforted his father before him.

Regard the universe often as one living being, having one substance and one soul, he read Aurelius’ words.

A clicking sound. He held his breath and listened. He now heard the creaking of a door, which he recognized as the door to his terrace, and he felt a rush of adrenaline. He looked up and spotted a man standing before the open terrace door holding a leather satchel.

“It’s like you,” Max said. “Not a peep for over a year and then you show up on the fire escape like a cat burglar.” Max spoke a little too flipantly, he knew from the start, but the pained expression on Toby’s face brought his error home. Toby’s normally feline features and dewy eyes, the genetic inheritance from their mother, were now drawn and gaunt. And he seemed thinner, less substantial.

“It must be nice to cocoon yourself in your ivory tower and toss your pearls to the adoring crowds,” Toby said morosely by way of a greeting. “What’s that you’re reading?” He picked up the book and scowled. “Marcus Aurelius, of course. Dad’s favorite. Why am I not surprised.” He dropped his satchel on the parquet floor and poured himself some coffee.

“Put the cup down and defend yourself,” Max said as he stood. It had been a tradition for as long as Max could remember. Whenever the brothers got together they sparred, Max using his Tai Chi and Toby his Tae Kwon Do, a battle which Toby usually lost.

“I’m not in the mood,” Toby murmured.

“C’mon, what are you, a Mama’s boy?” Max knew this would get Toby’s juices flowing. He got into his fighting stance and was about to start his slow motion movements as a tease when he saw a swirl of activity, then felt the force of Toby’s heel pound his chest. He flew backward and landed hard on the parquet floor.

“I told you, I’m not in the mood,” Toby said.

Max lay on his back for a moment, trying to catch his breath. He couldn’t remember the last time Toby had been able to surprise him, and with such force.

“So what’s got you in such a funk? One of your zillion dollar patents gone sour?” Max’s dig was motivated by his own inability to patent any of his gene discoveries. Unlike Toby, who was a partner at Janus, a private biotech company, Max’s discoveries belonged to Columbia University.

“Max Wilder, the good son who followed in his father’s footsteps and joined the ranks of academia demigods,” Toby said expansively. “Are you souring on your role?”

“I never sought that role. Just followed my instincts.”

“Well, maybe your instincts were right after all,” Toby murmured. He gathered his cup of coffee and sank into the couch.

“What’s this, a change of heart? Have you found religion?” Max asked.

“No, but maybe something just as good.”

“Ah, it must be love, then. Religion and love, the two opiates of the masses.”

“You should try it. The life of a monk doesn’t suit you.”

“It suits me fine. I simply choose not to succumb to a chemical reaction of the brain intended to perpetuate the species. A distraction at best, a catastrophe at worst.”

The two brothers sat in silence for a moment.

“You still blame mother for the accident?” Toby asked.

“The fact is, little brother, that they wouldn’t have gone sailing if it hadn’t been for her. They wouldn’t have even owned a sailboat. But let’s not rehash old arguments. What’s the name of your latest damsel and what wisdom has she brought you?”

“Never mind her name. Let’s just say she’s opened my eyes to the consequences of what I’m doing.”

Max whistled. “What the hell are you working on, biological weapons?”

“Something even more powerful.”

“Yeah? Like what?”

“You know I can’t tell you. But it’s been successful beyond anyone’s dreams.”

“Depends on how high you dream,” Max scowled. “But why aren’t you celebrating?”

“I should, shouldn’t I?” Toby smiled bitterly. “The thing is, I believe the knowledge is too powerful to belong to one man.”

“You mean Caine?”

“Tiberius Caine, our beloved leader.” Toby laughed. “The funny thing is that I suspect there’s more to The Daedalus Project that I’m supposed to know about.”

“Caine has a flair for Greek mythology,” Max said. “Mother would have loved that. So what if you don’t know everything? There must be hundreds of projects at a company the size of Janus.”

Toby threw Max a look of disgust. “You don’t get it. Your little brother is a senior partner. I’m supposed to know all the major projects at Janus.” His face grew dark. “There’s another thing. Caine found a security breach. Someone downloaded the computer program the entire project is based on, someone on the inside. So he shut the project down.”

“You have a spy among your midst,” Max said jovially. “What’s so special about this program, anyway?”

“The computer program? It’s everything.” Toby waived his hand as if to erase the thought. “I came here because I saw on the itinerary that you’re presenting a paper at the Venice conference.”

The question caught Max off guard. What the hell did The Rock’s paper have to do with anything?

“Suggestions of Non-Randomness in Junk DNA,” Max said. “It’s a trial balloon. One of my graduate students has a doctorate in math and

thinks he sees a pattern. I think it's all bunk. So what?"

"So I'm here to tell you not to present it. In fact, don't go to Venice at all." Toby's hand trembled as he wiped the sweat off his brow. "It may even be too late. The title may be enough."

"Enough for what?"

"Withdraw the paper, say you've found fatal flaws in your analysis, that it was a silly idea to begin with."

Max knew Toby to be the emotional type, but he'd never seen him hysterical.

"Is that what you guys found in your project, a pattern in junk DNA?" Max asked. "We know there's a pattern in some of it. It contains areas which control the expression of genes, the switches of the genome. The rest of it is just what the name says: eons of accumulated trash, a dead end."

"That's what we all thought." Through Toby's moroseness now appeared what looked like a superior smirk. "We've all been saying how illogical it is for junk DNA to even exist because it serves no purpose. I'm here to tell you it's not illogical, it has a purpose."

"You're dreaming."

Toby shrugged.

"What is this model? What are you hiding? Tell me, damn it, if you want my help."

"I'm not here for help," Toby said. "I'm here to warn you. There's more to junk DNA than just switches, more than you can imagine. For once listen to your crazy kid brother. Don't go to the conference. Retract the paper. Disappear for a while."

"Disappear?" Not since Max first told Toby about their parents' drowning over ten years ago had he seen Toby so panic-stricken. Max had the urge to put his arm around his kid brother but he checked himself. What was Toby hiding?

“Look, they might think I told you about the project,” Toby said. “They might even think I gave you the computer program. You don’t know these people.”

“What people? Caine?”

“No, there are others.” He stood. “I came here to warn you. I’ve done that. My conscience is clear.”

“Are you going to the conference?”

Toby nodded. “I’ve got one more thing to do in Venice and then I’ll disappear. You won’t hear from me for a while. Maybe a long while.” He picked up his satchel and strode back toward the patio door to leave the way he’d entered.

“Like I’d even notice,” Max said. “What’s so important in Venice?”

Toby turned to face Max. “I’m the one who downloaded the program. In Venice I’m going to hand it over to someone for safekeeping.”

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