

DAVID  
AND  
GOLIATH



UNDERDOGS, MISFITS, AND  
THE ART OF BATTLING GIANTS

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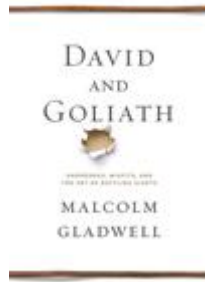
# DAVID AND GOLIATH

UNDERDOGS, MISFITS, AND  
THE ART OF BATTLING GIANTS

MALCOLM GLADWELL



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*For A.L. and for S.F., a real underdog*

But the Lord said to Samuel, “Do not look on his appearance or on the height of his stature, because I have rejected him; for the Lord does not see as mortals see; they look on the outward appearance, but the Lord looks on the heart.”

1 Samuel 16:7

# Introduction

## Goliath

“Am I a dog that you should come to me with sticks?”

### 1.

At the heart of ancient Palestine is the region known as the Shephelah, a series of ridges and valleys connecting the Judaeen Mountains to the east with the wide, flat expanse of the Mediterranean plain. It is an area of breathtaking beauty, home to vineyards and wheat fields and forests of sycamore and terebinth. It is also of great strategic importance.

Over the centuries, numerous battles have been fought for control of the region because the valleys rising from the Mediterranean plain offer those on the coast a clear path to the cities of Hebron, Bethlehem, and Jerusalem in the Judaeen highlands. The most important valley is Aijalon, in the north. But the most storied is the Elah. The Elah was where Saladin faced off against the Knights of the Crusades in the twelfth century. It played a central role in the Maccabean wars with Syria more than a thousand years before that, and, most famously, during the days of the Old Testament, it was where the fledgling Kingdom of Israel squared off against the armies of the Philistines.

The Philistines were from Crete. They were a seafaring people who had moved to Palestine and settled along the coast. The Israelites were clustered in the mountains, under the leadership of King Saul. In the second half of the eleventh century BCE, the Philistines began moving east, winding their way upstream along the floor of the Elah Valley. Their goal was to capture the mountain ridge near Bethlehem and split Saul's kingdom in two. The Philistines were battle-tested and dangerous, and the sworn enemies of the Israelites. Alarmed, Saul gathered his men and hastened down from the mountains to confront them.

The Philistines set up camp along the southern ridge of the Elah. The Israelites pitched their tents on the other side, along the northern ridge, which left the two armies looking across the ravine at each other. Neither dared to move. To attack meant descending down the hill and then making a suicidal climb up the enemy's ridge on the other side. Finally, the Philistines had enough. They sent their greatest warrior down into the valley to resolve the deadlock one on one.

He was a giant, six foot nine at least, wearing a bronze helmet and full body armor. He carried a javelin, a spear, and a sword. An attendant preceded him, carrying a large shield. The giant faced the Israelites and shouted out: "Choose you a man and let him come down to me! If he prevail in battle against me and strike me down, we shall be slaves to you. But if I prevail and strike him down, you will be slaves to us and serve us."

In the Israelite camp, no one moved. Who could win against such a terrifying opponent? Then, a shepherd boy who had come down from Bethlehem to bring food to his brothers stepped forward and volunteered. Saul objected: "You cannot go against this Philistine to do battle with him, for you are a lad and he is a man of war from his youth." But the shepherd was adamant. He had faced more ferocious opponents than this, he argued. "When the lion or the bear would come and carry off a sheep from the herd," he told Saul, "I would go after him and strike him down and rescue it from his clutches." Saul had no other options. He relented, and the shepherd boy ran down the hill toward the giant standing in the valley. "Come to me, that I may give your flesh to the birds of the heavens and the beasts of the field," the giant cried out when he saw his opponent approach. Thus began one of history's most famous battles. The giant's name was Goliath. The shepherd boy's name was David.



## 2.

*David and Goliath* is a book about what happens when ordinary people confront giants. By “giants,” I mean powerful opponents of all kinds—from armies and mighty warriors to disability, misfortune, and oppression. Each chapter tells the story of a different person—famous or unknown, ordinary or brilliant—who has faced an outsize challenge and been forced to respond. Should I play by the rules or follow my own instincts? Shall I persevere or give up? Should I strike back or forgive?

Through these stories, I want to explore two ideas. The first is that much of what we consider valuable in our world arises out of these kinds of lopsided conflicts, because the act of facing overwhelming odds produces greatness and beauty. And second, that we consistently get these kinds of conflicts wrong. We misread them. We misinterpret them. Giants are not what we think they are. The same qualities that appear to give them strength are often the sources of great weakness. And the fact of being an underdog can *change* people in ways that we often fail to appreciate: it can open doors and create opportunities and educate and enlighten and make possible what might otherwise have seemed unthinkable. We need a better guide to facing giants—and there is no better place to start that journey than with the epic confrontation between David and Goliath three thousand years ago in the Valley of Elah.

When Goliath shouted out to the Israelites, he was asking for what was known as “single combat.” This was a common practice in the ancient world. Two sides in a conflict would seek to avoid the heavy bloodshed of open battle by choosing one warrior to represent each in a duel. For example, the first-century BCE Roman historian Quintus Claudius Quadrigarius tells of an epic battle in which a Gaul warrior began mocking his Roman opponents. “This immediately aroused the great indignation of one Titus Manlius, a youth of the highest birth,” Quadrigarius writes. Titus challenged the Gaul to a duel:

He stepped forward, and would not suffer Roman valour to be shamefully tarnished by a Gaul. Armed with a legionary’s shield and a Spanish sword, he confronted the Gaul. Their fight took place on the very bridge [over the Anio River] in the presence of both armies, amid great apprehension. Thus they confronted each other: the Gaul,

according to his method of fighting, with shield advanced and awaiting an attack; Manlius, relying on courage rather than skill, struck shield against shield and threw the Gaul off balance. While the Gaul was trying to regain the same position, Manlius again struck shield against shield and again forced the man to change his ground. In this fashion he slipped under the Gaul's sword and stabbed him in the chest with his Spanish blade....After he had slain him, Manlius cut off the Gaul's head, tore off his tongue and put it, covered as it was with blood, around his own neck.

This is what Goliath was expecting—a warrior like himself to come forward for hand-to-hand combat. It never occurred to him that the battle would be fought on anything other than those terms, and he prepared accordingly. To protect himself against blows to the body, he wore an elaborate tunic made up of hundreds of overlapping bronze fishlike scales. It covered his arms and reached to his knees and probably weighed more than a hundred pounds. He had bronze shin guards protecting his legs, with attached bronze plates covering his feet. He wore a heavy metal helmet. He had three separate weapons, all optimized for close combat. He held a thrusting javelin made entirely of bronze, which was capable of penetrating a shield or even armor. He had a sword on his hip. And as his primary option, he carried a special kind of short-range spear with a metal shaft as “thick as a weaver’s beam.” It had a cord attached to it and an elaborate set of weights that allowed it to be released with extraordinary force and accuracy. As the historian Moshe Garsiel writes, “To the Israelites, this extraordinary spear, with its heavy shaft plus long and heavy iron blade, when hurled by Goliath’s strong arm, seemed capable of piercing any bronze shield and bronze armor together.” Can you see why no Israelite would come forward to fight Goliath?

Then David appears. Saul tries to give him his own sword and armor so at least he’ll have a fighting chance. David refuses. “I cannot walk in these,” he says, “for I am unused to it.” Instead he reaches down and picks up five smooth stones, and puts them in his shoulder bag. Then he descends into the valley, carrying his shepherd’s staff. Goliath looks at the boy coming toward him and is insulted. He was expecting to do battle with a seasoned warrior. Instead he sees a shepherd—a boy from one of the lowliest of all professions—who seems to want to use his

shepherd's staff as a cudgel against Goliath's sword. "Am I a dog," Goliath says, gesturing at the staff, "that you should come to me with sticks?"

What happens next is a matter of legend. David puts one of his stones into the leather pouch of a sling, and he fires at Goliath's exposed forehead. Goliath falls, stunned. David runs toward him, seizes the giant's sword, and cuts off his head. "The Philistines saw that their warrior was dead," the biblical account reads, "and they fled."

The battle is won miraculously by an underdog who, by all expectations, should not have won at all. This is the way we have told one another the story over the many centuries since. It is how the phrase "David and Goliath" has come to be embedded in our language—as a metaphor for improbable victory. And the problem with that version of the events is that almost everything about it is wrong.

### 3.

Ancient armies had three kinds of warriors. The first was cavalry—armed men on horseback or in chariots. The second was infantry—foot soldiers wearing armor and carrying swords and shields. The third were projectile warriors, or what today would be called artillery: archers and, most important, slingers. Slingers had a leather pouch attached on two sides by a long strand of rope. They would put a rock or a lead ball into the pouch, swing it around in increasingly wider and faster circles, and then release one end of the rope, hurling the rock forward.

Slinging took an extraordinary amount of skill and practice. But in experienced hands, the sling was a devastating weapon. Paintings from medieval times show slingers hitting birds in midflight. Irish slingers were said to be able to hit a coin from as far away as they could see it, and in the Old Testament Book of Judges, slingers are described as being accurate within a "hair's breadth." An experienced slinger could kill or seriously injure a target at a distance of up to two hundred yards.<sup>1</sup> The Romans even had a special set of tongs made just to remove stones that had been embedded in some poor soldier's body by a sling. Imagine standing in front of a Major League Baseball pitcher as he aims a baseball at your head. That's what facing a slinger was like—only what

was being thrown was not a ball of cork and leather but a solid rock.

The historian Baruch Halpern argues that the sling was of such importance in ancient warfare that the three kinds of warriors balanced one another, like each gesture in the game of rock, paper, scissors. With their long pikes and armor, infantry could stand up to cavalry. Cavalry could, in turn, defeat projectile warriors, because the horses moved too quickly for artillery to take proper aim. And projectile warriors were deadly against infantry, because a big lumbering soldier, weighed down with armor, was a sitting duck for a slinger who was launching projectiles from a hundred yards away. “This is why the Athenian expedition to Sicily failed in the Peloponnesian War,” Halpern writes. “Thucydides describes at length how Athens’s heavy infantry was decimated in the mountains by local light infantry, principally using the sling.”

Goliath is heavy infantry. He thinks that he is going to be engaged in a duel with another heavy-infantryman, in the same manner as Titus Manlius’s fight with the Gaul. When he says, “Come to me, that I may give your flesh to the birds of the heavens and the beasts of the field,” the key phrase is “come to me.” He means come right up to me so that we can fight at close quarters. When Saul tries to dress David in armor and give him a sword, he is operating under the same assumption. He assumes David is going to fight Goliath hand to hand.

David, however, has no intention of honoring the rituals of single combat. When he tells Saul that he has killed bears and lions as a shepherd, he does so not just as testimony to his courage but to make another point as well: that he intends to fight Goliath the same way he has learned to fight wild animals—as a projectile warrior.

He *runs* toward Goliath, because without armor he has speed and maneuverability. He puts a rock into his sling, and whips it around and around, faster and faster at six or seven revolutions per second, aiming his projectile at Goliath’s forehead—the giant’s only point of vulnerability. Eitan Hirsch, a ballistics expert with the Israeli Defense Forces, recently did a series of calculations showing that a typical-size stone hurled by an expert slinger at a distance of thirty-five meters would have hit Goliath’s head with a velocity of thirty-four meters per second—more than enough to penetrate his skull and render him unconscious or dead. In terms of stopping power, that is equivalent to a fair-size modern handgun. “We find,” Hirsch writes, “that David could have slung and hit

Goliath in little more than one second—a time so brief that Goliath would not have been able to protect himself and during which he would be stationary for all practical purposes.”

What could Goliath do? He was carrying over a hundred pounds of armor. He was prepared for a battle at close range, where he could stand, immobile, warding off blows with his armor and delivering a mighty thrust of his spear. He watched David approach, first with scorn, then with surprise, and then with what can only have been horror—as it dawned on him that the battle he was expecting had suddenly changed shape.

“You come against me with sword and spear and javelin,” David said to Goliath, “but I come against you in the name of the Lord Almighty, the God of the armies of Israel, whom you have defied. This day the Lord will deliver you into my hands, and I’ll strike you down and cut off your head....All those gathered here will know that it is not by sword or spear that the Lord saves; for the battle is the Lord, and he will give all of you into our hands.”

Twice David mentions Goliath’s sword and spear, as if to emphasize how profoundly different his intentions are. Then he reaches into his shepherd’s bag for a stone, and at that point no one watching from the ridges on either side of the valley would have considered David’s victory improbable. David was a slinger, and slingers beat infantry, hands down.

“Goliath had as much chance against David,” the historian Robert Dohrenwend writes, “as any Bronze Age warrior with a sword would have had against an [opponent] armed with a .45 automatic pistol.”<sup>2</sup>

## 4.

Why has there been so much misunderstanding around that day in the Valley of Elah? On one level, the duel reveals the folly of our assumptions about power. The reason King Saul is skeptical of David’s chances is that David is small and Goliath is large. Saul thinks of power in terms of physical might. He doesn’t appreciate that power can come in other forms as well—in breaking rules, in substituting speed and surprise for strength. Saul is not alone in making this mistake. In the pages that follow, I’m going to argue that we continue to make that error today, in

ways that have consequences for everything from how we educate our children to how we fight crime and disorder.

But there's a second, deeper issue here. Saul and the Israelites think they know who Goliath is. They size him up and jump to conclusions about what they think he is capable of. But they do not really *see* him. The truth is that Goliath's behavior is puzzling. He is supposed to be a mighty warrior. But he's not acting like one. He comes down to the valley floor accompanied by an attendant—a servant walking before him, carrying a shield. Shield bearers in ancient times often accompanied archers into battle because a soldier using a bow and arrow had no free hand to carry any kind of protection on his own. But why does Goliath, a man calling for sword-on-sword single combat, need to be assisted by a third party carrying an archer's shield?

What's more, why does he say to David, "Come to me"? Why can't Goliath go to David? The biblical account emphasizes how slowly Goliath moves, which is an odd thing to say about someone who is alleged to be a battle hero of infinite strength. In any case, why doesn't Goliath respond much sooner to the sight of David coming down the hillside without any sword or shield or armor? When he first sees David, his first reaction is to be insulted, when he should be terrified. He seems oblivious of what's happening around him. There is even that strange comment after he finally spots David with his shepherd's staff: "Am I a dog that you should come to me with sticks?" Sticks plural? David is holding only one stick.

What many medical experts now believe, in fact, is that Goliath had a serious medical condition. He looks and sounds like someone suffering from what is called acromegaly—a disease caused by a benign tumor of the pituitary gland. The tumor causes an overproduction of human growth hormone, which would explain Goliath's extraordinary size. (The tallest person in history, Robert Wadlow, suffered from acromegaly. At his death, he was eight foot eleven inches, and apparently still growing.)

And furthermore, one of the common side effects of acromegaly is vision problems. Pituitary tumors can grow to the point where they compress the nerves leading to the eyes, with the result that people with acromegaly often suffer from severely restricted sight and diplopia, or double vision. Why was Goliath led onto the valley floor by an attendant? Because the attendant was his visual guide. Why does he move so slowly? Because the world around him is a blur. Why does it

take him so long to understand that David has changed the rules? Because he doesn't see David until David is up close. "Come to me, that I may give your flesh to the birds of the heavens and the beasts of the field," he shouts out, and in that request there is a hint of his vulnerability. *I need you to come to me because I cannot locate you otherwise.* And then there is the otherwise inexplicable "Am I a dog that you come to me with sticks?" David had only one stick. Goliath saw two.

What the Israelites saw, from high on the ridge, was an intimidating giant. In reality, the very thing that gave the giant his size was also the source of his greatest weakness. There is an important lesson in that for battles with all kinds of giants. The powerful and the strong are not always what they seem.

David came running toward Goliath, powered by courage and faith. Goliath was blind to his approach—and then he was down, too big and slow and blurry-eyed to comprehend the way the tables had been turned. All these years, we've been telling these kinds of stories wrong. *David and Goliath* is about getting them right.

1 The modern world record for slinging a stone was set in 1981 by Larry Bray: 437 meters. Obviously, at that distance, accuracy suffers.

2 The Israeli minister of defense Moshe Dayan—the architect of Israel's astonishing victory in the 1967 Six-Day War—also wrote an essay on the story of David and Goliath. According to Dayan, "David fought Goliath not with inferior but (on the contrary) with superior weaponry; and his greatness consisted not in his being willing to go out into battle against someone far stronger than he was. But in his knowing how to exploit a weapon by which a feeble person could seize the advantage and become stronger."