

*Introduction*  
*The Statue That Didn't*  
*Look Right*

In September of 1983, an art dealer by the name of Gianfranco Becchina approached the J. Paul Getty Museum in California. He had in his possession, he said, a marble statue dating from the sixth century BC. It was what is known as a kouros — a sculpture of a nude male youth standing with his left leg forward and his arms at his sides. There are only about two hundred kouros in existence, and most have been recovered badly damaged or in fragments from grave sites or archeological digs. But this one was almost perfectly preserved. It stood close to seven feet tall. It had a kind of light-colored glow that set it apart from other ancient works. It was an extraordinary find. Becchina's asking price was just under \$10 million.

The Getty moved cautiously. It took the kouros on loan and began a thorough investigation. Was the statue consistent with other known kouros? The answer appeared to be yes. The style of the sculpture seemed reminiscent of the Anavyssos kouros in the National Archaeological Museum

of Athens, meaning that it seemed to fit with a particular time and place. Where and when had the statue been found? No one knew precisely, but Becchina gave the Getty's legal department a sheaf of documents relating to its more recent history. The kouros, the records stated, had been in the private collection of a Swiss physician named Lauffenberger since the 1930s, and he in turn had acquired it from a well-known Greek art dealer named Rousсос.

A geologist from the University of California named Stanley Margolis came to the museum and spent two days examining the surface of the statue with a high-resolution stereomicroscope. He then removed a core sample measuring one centimeter in diameter and two centimeters in length from just below the right knee and analyzed it using an electron microscope, electron microprobe, mass spectrometry, X-ray diffraction, and X-ray fluorescence. The statue was made of dolomite marble from the ancient Cape Vathy quarry on the island of Thasos, Margolis concluded, and the surface of the statue was covered in a thin layer of calcite — which was significant, Margolis told the Getty, because dolomite can turn into calcite only over the course of hundreds, if not thousands, of years. In other words, the statue was old. It wasn't some contemporary fake.

The Getty was satisfied. Fourteen months after their investigation of the kouros began, they agreed to buy the statue. In the fall of 1986, it went on display for the first time. The *New York Times* marked the occasion with a front-page story. A few months later, the Getty's curator of antiquities, Marion True, wrote a long, glowing account of the museum's acquisition for the art journal *The Burlington Magazine*. "Now standing erect without external support,

his closed hands fixed firmly to his thighs, the kouros expresses the confident vitality that is characteristic of the best of his brothers." True concluded triumphantly, "God or man, he embodies all the radiant energy of the adolescence of western art."

The kouros, however, had a problem. It didn't look right. The first to point this out was an Italian art historian named Federico Zeri, who served on the Getty's board of trustees. When Zeri was taken down to the museum's restoration studio to see the kouros in December of 1983, he found himself staring at the sculpture's fingernails. In a way he couldn't immediately articulate, they seemed wrong to him. Evelyn Harrison was next. She was one of the world's foremost experts on Greek sculpture, and she was in Los Angeles visiting the Getty just before the museum finalized the deal with Becchina. "Arthur Houghton, who was then the curator, took us down to see it," Harrison remembers. "He just swished a cloth off the top of it and said, 'Well, it isn't ours yet, but it will be in a couple of weeks.' And I said, 'I'm sorry to hear that.' What did Harrison see? She didn't know. In that very first moment, when Houghton swished off the cloth, all Harrison had was a hunch, an instinctive sense that something was amiss. A few months later, Houghton took Thomas Hoving, the former director of the Metropolitan Museum of Art in New York, down to the Getty's conservation studio to see the statue as well. Hoving always makes a note of the first word that goes through his head when he sees something new, and he'll never forget what that word was when he first saw the kouros. "It was 'fresh' — 'fresh,' " Hoving recalls. And "fresh" was not the right reaction to

have to a two-thousand-year-old statue. Later, thinking back on that moment, Hoving realized why that thought had popped into his mind: "I had dug in Sicily, where we found bits and pieces of these things. They just don't come out looking like that. The kouros looked like it had been dipped in the very best caffè latte from Starbucks."

Hoving turned to Houghton. "Have you paid for this?" Houghton, Hoving remembers, looked stunned.

"If you have, try to get your money back," Hoving said. "If you haven't, don't."

The Getty was getting worried, so they convened a special symposium on the kouros in Greece. They wrapped the statue up, shipped it to Athens, and invited the country's most senior sculpture experts. This time the chorus of dismay was even louder.

Harrison, at one point, was standing next to a man named George Despinis, the head of the Acropolis Museum in Athens. He took one look at the kouros and blanched. "Anyone who has ever seen a sculpture coming out of the ground," he said to her, "could tell that that thing has never been in the ground." Georgios Dontas, head of the Archaeological Society in Athens, saw the statue and immediately felt cold. "When I saw the kouros for the first time," he said, "I felt as though there was a glass between me and the work." Dontas was followed in the symposium by Angelos Delivorias, director of the Benaki Museum in Athens. He spoke at length on the contradiction between the style of the sculpture and the fact that the marble from which it was carved came from Thasos. Then he got to the point. Why did he think it was a fake? Because when he first laid eyes on it, he said, he felt a wave of "intuitive repulsion." By the

time the symposium was over, the consensus among many of the attendees appeared to be that the kouros was not at all what it was supposed to be. The Getty, with its lawyers and scientists and months of painstaking investigation, had come to one conclusion, and some of the world's foremost experts in Greek sculpture — just by looking at the statue and sensing their own "intuitive repulsion" — had come to another. Who was right?

For a time it wasn't clear. The kouros was the kind of thing that art experts argued about at conferences. But then, bit by bit, the Getty's case began to fall apart. The letters the Getty's lawyers used to carefully trace the kouros back to the Swiss physician Lauffenberger, for instance, turned out to be fakes. One of the letters dated 1952 had a postal code on it that didn't exist until twenty years later. Another letter dated 1955 referred to a bank account that wasn't opened until 1963. Originally the conclusion of long months of research was that the Getty kouros was in the style of the Anavyssos kouros. But that, too, fell into doubt: the closer experts in Greek sculpture looked at it, the more they began to see it as a puzzling pastiche of several different styles from several different places and time periods. The young man's slender proportions looked a lot like those of the Tenea kouros, which is in a museum in Munich, and his stylized, beaded hair was a lot like that of the kouros in the Metropolitan Museum in New York. His feet, meanwhile, were, if anything, modern. The kouros it most resembled, it turned out, was a smaller, fragmentary statue that was found by a British art historian in Switzerland in 1990. The two statues were cut from similar marble and sculpted in quite similar ways.

But the Swiss kourou didn't come from ancient Greece. It came from a forger's workshop in Rome in the early 1980s. And what of the scientific analysis that said that the surface of the Getty kouros could only have aged over many hundreds or thousands of years? Well, it turns out things weren't that cut and dried. Upon further analysis, another geologist concluded that it might be possible to "age" the surface of a dolomite marble statue in a couple of months using potato mold. In the Getty's catalogue, there is a picture of the kouros, with the notation "About 530 BC, or modern forgery."

When Federico Zeri and Evelyn Harrison and Thomas Hoving and Georgios Dontas — and all the others — looked at the kouros and felt an "intuitive repulsion," they were absolutely right. In the first two seconds of looking — in a single glance — they were able to understand more about the essence of the statue than the team at the Getty was able to understand after fourteen months.

*Blink* is a book about those first two seconds.

### 1. *Fast and Frugal*

Imagine that I were to ask you to play a very simple gambling game. In front of you are four decks of cards — two of them red and the other two blue. Each card in those four decks either wins you a sum of money or costs you some money, and your job is to turn over cards from any of the decks, one at a time, in such a way that maximizes your winnings. What you don't know at the beginning, however, is that the red decks are a minefield. The rewards are high, but when you lose on the red cards, you lose a

lot. Actually, you can win only by taking cards from the blue decks, which offer a nice steady diet of \$50 payouts and modest penalties. The question is how long will it take you to figure this out?

A group of scientists at the University of Iowa did this experiment a few years ago, and what they found is that after we've turned over about fifty cards, most of us start to develop a hunch about what's going on. We don't know why we prefer the blue decks, but we're pretty sure at that point that they are a better bet. After turning over about eighty cards, most of us have figured out the game and can explain exactly why the first two decks are such a bad idea. That much is straightforward. We have some experiences. We think them through. We develop a theory. And then finally we put two and two together. That's the way learning works.

But the Iowa scientists did something else, and this is where the strange part of the experiment begins. They hooked each gambler up to a machine that measured the activity of the sweat glands below the skin in the palms of their hands. Like most of our sweat glands, those in our palms respond to stress as well as temperature — which is why we get clammy hands when we are nervous. What the Iowa scientists found is that gamblers started generating stress responses to the red decks by the tenth card, *forty* cards before they were able to say that they had a hunch about what was wrong with those two decks. More important, right around the time their palms started sweating, their behavior began to change as well. They started favoring the blue cards and taking fewer and fewer cards from the red decks. In other words, the gamblers figured

the game out before they realized they had figured the game out: they began making the necessary adjustments long before they were consciously aware of what adjustments they were supposed to be making.

The Iowa experiment is just that, of course, a simple card game involving a handful of subjects and a stress detector. But it's a very powerful illustration of the way our minds work. Here is a situation where the stakes were high, where things were moving quickly, and where the participants had to make sense of a lot of new and confusing information in a very short time. What does the Iowa experiment tell us? That in those moments, our brain uses two very different strategies to make sense of the situation.

The first is the one we're most familiar with. It's the conscious strategy. We think about what we've learned, and eventually we come up with an answer. This strategy is logical and definitive. But it takes us eighty cards to get there. It's slow, and it needs a lot of information. There's a second strategy, though. It operates a lot more quickly. It starts to kick in after ten cards, and it's really smart, because it picks up the problem with the red decks almost immediately. It has the drawback, however, that it operates — at least at first — entirely below the surface of consciousness. It sends its messages through weirdly indirect channels, such as the sweat glands in the palms of our hands. It's a system in which our brain reaches conclusions without immediately telling us that it's reaching conclusions.

The second strategy was the path taken by Evelyn Harrison and Thomas Hoving and the Greek scholars. They didn't weigh every conceivable strand of evidence. They considered only what could be gathered in a

glance. Their thinking was what the cognitive psychologist Gerd Gigerenzer likes to call "fast and frugal." They simply took a look at that statue and some part of their brain did a series of instant calculations, and before any kind of conscious thought took place, they *felt* something, just like the sudden pricking of sweat on the palms of the gamblers. For Thomas Hoving, it was the completely inappropriate word "fresh" that suddenly popped into his head. In the case of Angelos Delivorrias, it was a wave of "intuitive repulsion." For Georgios Dontas, it was the feeling that there was a glass between him and the work. Did they know why they knew? Not at all. But they *knew*.

## 2. *The Internal Computer*

The part of our brain that leaps to conclusions like this is called the adaptive unconscious, and the study of this kind of decision making is one of the most important new fields in psychology. The adaptive unconscious is not to be confused with the unconscious described by Sigmund Freud, which was a dark and murky place filled with desires and memories and fantasies that were too disturbing for us to think about consciously. This new notion of the adaptive unconscious is thought of, instead, as a kind of giant computer that quickly and quietly processes a lot of the data we need in order to keep functioning as human beings. When you walk out into the street and suddenly realize that a truck is bearing down on you, do you have time to think through all your options? Of course not. The only way that human beings could ever have survived as a species for as long as we have is that we've developed another kind

of decision-making apparatus that's capable of making very quick judgments based on very little information. As the psychologist Timothy D. Wilson writes in his book *Strangers to Ourselves*: "The mind operates most efficiently by relegating a good deal of high-level, sophisticated thinking to the unconscious, just as a modern jetliner is able to fly on automatic pilot with little or no input from the human, 'conscious' pilot. The adaptive unconscious does an excellent job of sizing up the world, warning people of danger, setting goals, and initiating action in a sophisticated and efficient manner."

Wilson says that we toggle back and forth between our conscious and unconscious modes of thinking, depending on the situation. A decision to invite a co-worker over for dinner is conscious. You think it over. You decide it will be fun. You ask him or her. The spontaneous decision to argue with that same co-worker is made unconsciously — by a different part of the brain and motivated by a different part of your personality.

Whenever we meet someone for the first time, whenever we interview someone for a job, whenever we react to a new idea, whenever we're faced with making a decision quickly and under stress, we use that second part of our brain. How long, for example, did it take you, when you were in college, to decide how good a teacher your professor was? A class? Two classes? A semester? The psychologist Nalini Ambady once gave students three ten-second videotapes of a teacher — with the sound turned off — and found they had no difficulty at all coming up with a rating of the teacher's effectiveness. Then Ambady cut the clips back to five seconds, and the ratings were the same.

They were remarkably consistent even when she showed the students just *two* seconds of videotape. Then Ambady compared those snap judgments of teacher effectiveness with evaluations of those same professors made by their students after a full semester of classes, and she found that they were also essentially the same. A person watching a silent two-second video clip of a teacher he or she has never met will reach conclusions about how good that teacher is that are very similar to those of a student who has sat in the teacher's class for an entire semester. That's the power of our adaptive unconscious.

You may have done the same thing, whether you realized it or not, when you first picked up this book. How long did you first hold it in your hands? Two seconds? And yet in that short space of time, the design of the cover, whatever associations you may have with my name, and the first few sentences about the kouros all generated an impression — a flurry of thoughts and images and preceptions — that has fundamentally shaped the way you have read this introduction so far. Aren't you curious about what happened in those two seconds?

I think we are innately suspicious of this kind of rapid cognition. We live in a world that assumes that the quality of a decision is directly related to the time and effort that went into making it. When doctors are faced with a difficult diagnosis, they order more tests, and when we are uncertain about what we hear, we ask for a second opinion. And what do we tell our children? Haste makes waste. Look before you leap. Stop and *think*. Don't judge a book by its cover. We believe that we are always better off gathering as much information as possible and spending as

much time as possible in deliberation. We really only trust conscious decision making. But there are moments, particularly in times of stress, when haste does not make waste, when our snap judgments and first impressions can offer a much better means of making sense of the world. The first task of *Blink* is to convince you of a simple fact: decisions made very quickly can be every bit as good as decisions made cautiously and deliberately.

*Blink* is not just a celebration of the power of the glance, however. I'm also interested in those moments when our instincts betray us. Why, for instance, if the Getty's kouros was so obviously fake — or, at least, problematic — did the museum buy it in the first place? Why didn't the experts at the Getty also have a feeling of intuitive repulsion during the fourteen months they were studying the piece? That's the great puzzle of what happened at the Getty, and the answer is that those feelings, for one reason or another, were thwarted. That is partly because the scientific data seemed so compelling. (The geologist Stanley Margolis was so convinced by his own analysis that he published a long account of his method in *Scientific American*.) But mostly it's because the Getty desperately wanted the statue to be real. It was a young museum, eager to build a world-class collection, and the kouros was such an extraordinary find that its experts were blinded to their instincts. The art historian George Ortiz was once asked by Ernst Langlotz, one of the world's foremost experts on archaic sculpture, whether he wanted to purchase a bronze statuette. Ortiz went to see the piece and was taken aback; it was, to his mind, clearly a fake, full of contradictory and slipshod elements. So why

was Langlotz, who knew as much as anyone in the world about Greek statues, fooled? Ortiz's explanation is that Langlotz had bought the sculpture as a very young man, before he acquired much of his formidable expertise. "I suppose," Ortiz said, "that Langlotz fell in love with this piece; when you are a young man, you do fall in love with your first purchase, and perhaps this was his first love. Notwithstanding his unbelievable knowledge, he was obviously unable to question his first assessment."

That is not a fanciful explanation. It gets at something fundamental about the way we think. Our unconscious is a powerful force. But it's fallible. It's not the case that our internal computer always shines through, instantly decoding the "truth" of a situation. It can be thrown off, distracted, and disabled. Our instinctive reactions often have to compete with all kinds of other interests and emotions and sentiments. So, when should we trust our instincts, and when should we be wary of them? Answering that question is the second task of *Blink*. When our powers of rapid cognition go awry, they go awry for a very specific and consistent set of reasons, and those reasons can be identified and understood. It is possible to learn when to listen to that powerful onboard computer and when to be wary of it.

The third and most important task of this book is to convince you that our snap judgments and first impressions can be educated and controlled. I know that's hard to believe. Harrison and Hoving and the other art experts who looked at the Getty kouros had powerful and sophisticated reactions to the statue, but didn't they bubble up unbidden from their unconscious? Can that kind of mysterious reaction be controlled? The truth is that it can. Just

as we can teach ourselves to think logically and deliberately, we can also teach ourselves to make better snap judgments. In *Blink* you'll meet doctors and generals and coaches and furniture designers and musicians and actors and car salesmen and countless others, all of whom are very good at what they do and all of whom owe their success, at least in part, to the steps they have taken to shape and manage and educate their unconscious reactions. The power of knowing, in that first two seconds, is not a gift given magically to a fortunate few. It is an ability that we can all cultivate for ourselves.

### 3. *A Different and Better World*

There are lots of books that tackle broad themes, that analyze the world from great remove. This is not one of them. *Blink* is concerned with the very smallest components of our everyday lives — the content and origin of those instantaneous impressions and conclusions that spontaneously arise whenever we meet a new person or confront a complex situation or have to make a decision under conditions of stress. When it comes to the task of understanding ourselves and our world, I think we pay too much attention to those grand themes and too little to the particulars of those fleeting moments. But what would happen if we took our instincts seriously? What if we stopped scanning the horizon with our binoculars and began instead examining our own decision making and behavior through the most powerful of microscopes? I think that would change the way wars are fought, the kinds of products we see on the shelves, the kinds of movies that get made,

the way police officers are trained, the way couples are counseled, the way job interviews are conducted, and on and on. And if we were to combine all of those little changes, we would end up with a different and better world. I believe — and I hope that by the end of this book you will believe it as well — that the task of making sense of ourselves and our behavior requires that we acknowledge there can be as much value in the blink of an eye as in months of rational analysis. “I always considered scientific opinion more objective than esthetic judgments,” the Getty’s curator of antiquities Marion True said when the truth about the kouros finally emerged. “Now I realize I was wrong.”