

On Awareness, 'Blink' (extract) – Malcolm Gladwell (2005)

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 pay-outs 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 together¹. 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 behaviour began to change as well. They started favouring 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*.

¹ This is essentially a summary of Kolb's experiential learning cycle, which we shall look at later on in the course.