

# SCIENTIFIC AMERICAN™

Permanent Address: <http://blogs.scientificamerican.com/streams-of-consciousness/2013/01/04/how-to-think-like-sherlock-holmes-the-value-of-creativity-and-imagination-excerpt/>

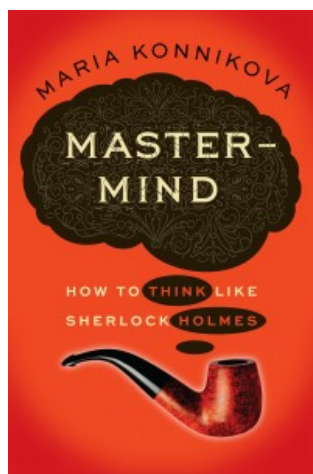
## How to Think Like Sherlock Holmes: The Value of Creativity and Imagination [Excerpt]

By Ingrid Wickelgren | January 4, 2013

By Maria Konnikova

ADVERTISEMENT

*Editor's note: The following is an excerpt from Mastermind: How to Think Like Sherlock Holmes. Reprinted by arrangement with Viking, a member of Penguin Group (USA) Inc., Copyright © 2013 by Maria Konnikova.*



“It is surprising that people do not believe that there is imagination in science,” Nobel-winning physicist Richard Feynman once told an audience. Not only is that view patently false, but “it is a very interesting kind of imagination, unlike that of the artist. The great difficulty is in trying to imagine something that you have never seen, that is consistent in every detail with what has already been seen, and that is different from what has been thought of; furthermore, it must be definite and not a vague proposition.”

Imagination takes the stuff of observation and experience and recombines them into something new.

In 1968, the high jump was a well-established sport. You would run, you would jump, and you would make your way over a pole in one of several ways. In older days you’d likely use the scissors, scissoring out your legs as you glided over, but by the sixties you’d probably be using the straddle or the belly roll, facing down and basically rolling over the bar. Whichever style you used, you’d be facing forward when you made your jump. Imagine trying to jump backward. That would be ridiculous.

Dick Fosbury, however, didn’t think so. All through high school, he’d been developing a backward-facing style, and now, in college, it was taking him higher than it ever had. He wasn’t sure why he did it. He didn’t care what anyone else was doing. He just jumped with the feeling of the thing. People joked and laughed. Fosbury looked just as ridiculous as they thought he would (and his inspirations sounded a bit ridiculous, too. When asked about his approach, he told *Sports Illustrated*, “I don’t even think about the high jump. It’s positive thinking. I just let it happen”). Certainly, no one expected him to make the U.S. Olympic team—let alone win the Olympics. But win he did, setting American and Olympic records with his 7-foot-4.25-inch (2.24-meter) jump, only 1.5 inches short of the world record.

With his unprecedented technique, dubbed the Fosbury Flop, Fosbury did what many other more traditional athletes had never managed to accomplish: he revolutionized, in a very real way, an entire sport. Even after his win, expectations were that he would remain a lone bird, jumping in his esoteric style while the rest of the world looked on. But since 1978 no world record has been set by anyone other than a flopper; and by 1980, thirteen of sixteen Olympic finalists were flopping across the bar. To this day, the flop remains the dominant high jump style. The straddle looks old and cumbersome in comparison. Why hadn’t anyone thought of replacing it earlier?

Fosbury wasn’t even a particularly talented jumper. It was all in the approach. Imagination allows us to see things that aren’t so, be it a dead man who is actually alive or a way of jumping that, while backward, couldn’t be more forward looking.

### Keep Your Distance

One of the most important ways to facilitate imaginative thinking is through distance. In “The Adventure of the Bruce-Partington Plans,” a case that comes quite late in the Holmes-Watson partnership, Watson observes:

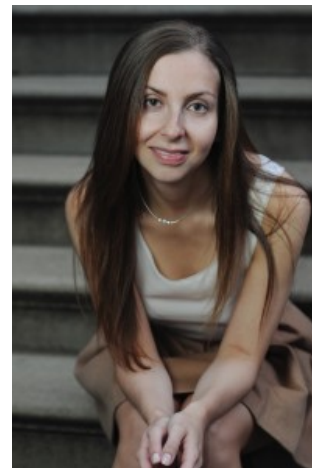
One of the most remarkable characteristics of Sherlock Holmes was his power of throwing his brain out of action and switching all his thoughts on to lighter things whenever he had convinced himself that he could no longer work to advantage. I remember that during the whole of that memorable day he lost himself in a monograph which he had undertaken upon the Polyphonic Motets of Lassus. For my own part I had none of this power of detachment, and the day, in consequence appeared to be interminable.

Forcing your mind to take a step back is a tough thing to do. It seems counterintuitive to walk away from a problem that you want to solve. But in reality, the characteristic is not so remarkable either for Holmes or for individuals who are deep thinkers. The fact that it is remarkable for Watson (and that he self-admittedly lacks the skill) goes a long way to explaining why he so often fails when Holmes succeeds.

Psychologist Yaacov Trope argues that psychological distance may be one of the single most important steps you can take to improve thinking and decision-making. It can come in many forms: temporal, or distance in time (both future and past); spatial, or distance in space (how physically close or far you are from something); social, or distance between people (how someone else sees it); and hypothetical, or distance from reality (how things might have happened). But whatever the form, all of these distances have something in common: they all require you to transcend the immediate moment in your mind. They all require you to take a step back.

Trope posits that the further we move in distance, the more general and abstract our perspective and our interpretation become; and the further we move from our own perspective, the wider the picture we are able to consider. Conversely, as we move closer once more, our thoughts become more concrete, more specific, more practical—and the closer we remain to our egocentric view, the smaller and more limited the picture that confronts us. Our level of construal influences, in turn, how we evaluate a situation and how we ultimately choose to interact with it. It affects our decisions and our ability to solve problems.

In essence, psychological distance accomplishes one major thing: it engages System Holmes. It forces quiet reflection. Distancing has been shown to improve cognitive performance, from actual problem solving to the ability to exercise self-control. Children who use psychological distancing techniques (for example, visualizing marshmallows as puffy clouds) are better able to delay gratification and hold out for a larger later reward. Adults who are told to take a step back and imagine a situation from a more general perspective make better judgments and evaluations, and have better self-assessments and lower emotional reactivity. Individuals who employ distancing in typical problem-solving scenarios emerge ahead of their more immersed counterparts. And those who take a distanced view of political questions tend to emerge with evaluations that are better able to stand the test of time.



Author Maria Konnikova. Courtesy of Margaret Singer and Max Freeman.



**About the Author:** Ingrid Wickelgren is an editor at Scientific American Mind, but this is her personal blog at which, at random intervals, she shares the latest reports, hearsay and speculation on the mind, brain and behavior. Follow on Twitter [@iwickelgren](#).

[More >](#)

*The views expressed are those of the author and are not necessarily those of Scientific American.*

## TRY A RISK-FREE ISSUE

**YES!** Send me a free issue of Scientific American with no obligation to continue the subscription. If I like it, I will be billed for the one-year subscription.

Email Address

Scientific American is a trademark of Scientific American, Inc., used with permission

© 2013 Scientific American, a Division of Nature America, Inc.

All Rights Reserved.

[Advertise](#)

[Special Ad Sections](#)

[Science Jobs](#)

[About Scientific American](#)

[Press Room](#)

[Site Map](#)

[Subscribe](#)

[Renew Your Subscription](#)

[Buy Back Issues](#)