

CHAPTER ONE

THE CREATIVE ANIMAL

THE IMPULSE TO INVENT AND INNOVATE IS AN
INTEGRAL PART OF BEING HUMAN

*“Creativity is the art of
combining a little idea
with another little idea,
you may have another
little idea, and so on . . .
at the end maybe a
great idea will come up.”*

—**Serge Bloch**

Bloch is a French illustrator whose iconic work has appeared in newspapers and magazines around the world—and appears at left. He has also illustrated and written several books and received two gold medals from the Society of Illustrators.

human of qualities. It is, in fact, “the unique and defining trait of our species,” writes the Pulitzer Prize-winning biologist Edward O. Wilson in his book *The Origins of Creativity*. As Wilson frames it, creativity is “an innate quest for originality,” driven by the enduring human passion for novelty, “the discovery of new entities and processes, the solving of old challenges and disclosure of new ones, the aesthetic surprise of unanticipated facts and theories, the pleasure of new faces, the thrill of new worlds.”

University of Notre Dame anthropologist Agustín Fuentes, author of *The Creative Spark: How Imagination Made Humans Exceptional*, puts it this way. “In a nutshell,” he says, “the essence of creativity is to look at the world around us, see how it is and imagine other possibilities that are not immediately present or based on our immediate personal experience. Creativity is seeing the possibilities and then trying to make those imaginings into material reality.”

To be sure, no other species can lay claim to our capacity to devise something new and original, from the sublime to the sublimely ridiculous. Other animals do build things—birds assemble their intricate nests, beavers construct dams, and ants dig elaborate networks of tunnels. “But airplanes, strangely tilted skyscrapers and Chia Pets, well, they’re pretty impressive,” Fuentes says, adding that from an evolutionary standpoint, “creativity is as much a part of our tool kit as walking on two legs, having a big brain and really good hands for manipulating things.” For a physically unprepossessing primate, without great fangs or claws or wings or other obvious physical advantages, creativity has been the great equalizer—and more—ensuring, for now, at least, the survival of *Homo sapiens*.

Still, even if we acknowledge that creativity and innovation are uniquely human, people tend to think creators—or “creatives,” as they’re now known in the professional world—are, if not divine, then members of a special rarefied class. Even more narrowly, creativity is often stereotyped as the province of artists. Painters, from Giotto to Leonardo and Michelangelo to Rembrandt and Vermeer, the French Impressionists, Picasso, Pollock, Basquiat, Banksy. Or poets and writers from Homer to Shakespeare, to Dickens, George Eliot, Proust and Borges. Or the great com-

posers, filmmakers, actors and dancers. Flamboyant figures, perhaps, passionate, dramatic, bohemian in dress and attitude.

That’s the caricature, at least. But some of the world’s most illustrious “creatives” wore lab coats or never picked up a brush or pen except to scrawl numbers and formulas. Copernicus, Galileo, Newton, Einstein, Nash, Hawking, who all saw the universe in some new way; Darwin, Mendel, Curie, Watson and Crick—who mapped human evolution, discovered new elements and cracked the genetic code. Or the inventors, from Archimedes to Gutenberg, Watt, Whitney, Bell, Edison, Tesla and Jobs, along with untold researchers who labored obscurely in the employ of large companies and industrial labs. Indeed, although the concept of creativity conjures all-star lineups stacked with historical heavyweights, it’s a mistake to become wedded to the Great Man or Woman theory of human innovation.

“People pigeonhole creativity as belonging to a single individual or a group of geniuses,” Fuentes says. “They don’t realize that each and every human has this incredible capacity to imagine and to change things. Auto mechanics can be amazingly creative—so can people trying to stretch a paycheck to the end of a month.” In a business context, think of a publication like this one—or maybe a website or an ad agency. The design and editorial teams may reap all the creative

kudos and cachet—but let’s put in a good word for Mary Ellen in Finance, who figured out novel ways to make all that spellbinding prose and imagery come in under budget without sacrificing quality.

Some of humankind’s most creative achievements have served seemingly quotidian, utilitarian ends—beginning, perhaps, with stone tools discovered in Africa that date back some 1.8 million years. “No living thing on the planet has ever thought to take a rock and modify it in certain ways so that it becomes a successful tool,” Fuentes says. “You look at these old stone artifacts and you can see them as the iPhones of 2 million years ago.” Several hundred thousand years later, societies were grinding up ochre and painting themselves as well as their tools—and, eventually, adorning the walls of their caves with figures and scenes—the origins of art and the peculiarly human drive to create purely

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