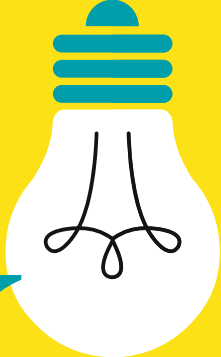


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Roberto Manzocco

Genius

Theory, History and Technique



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Roberto Manzocco
Department of Anthropology
John Jay College of Criminal Justice
New York City, NY, USA

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Genius is 1% inspiration and 99% perspiration

—*Thomas A. Edison*

Chance favours the prepared mind

—*Louis Pasteur*

This book is dedicated to Pietro Greco

Introduction

It Doesn't Take a Genius

Who knows how Einstein must have felt—a man literally capable of lifting, even if only slightly, the veil that separates us from full knowledge of reality and, in so doing, shattering the world of physics—during his daily interactions with other people, during his daily tasks, and so on? More generally, what does it mean to penetrate an area of reality and knowledge to such an extent that you become capable of going beyond it? And how does it change you to entertain, for days, years, and decades, a relationship with a phenomenon, a concept, or a work of art that absorbs you completely, to the point of identifying it with your very existence? What does it mean, in essence, to be a genius?

Fortunately, writing a book on genius does not require one to be a genius, because, among other things, we can apply the famous advice of Newton, who famously said in a letter to his rival Robert Hooke in 1676: “If I have seen a little further it is by standing on the shoulders of giants.” When we began the preparatory work for the book you are about to read, we certainly did not expect to discover the exaggerated amount of literature produced over the years—indeed, centuries—on this subject, and especially the high quality of many of the contributions we found ourselves reading. In short, we have at our disposal many sets of shoulders of giants who, before us, have dealt with these things on a technical level, deducing and identifying all kinds of conceptual subtleties in the study of genius. Without the work of these scholars, this

book—which serves as a popular introduction to these issues—would not have been possible.

Among the outstanding authors who have lent their shoulders to our pen, we would like to mention, first and foremost, Dean Keith Simonton, a scholar who has not only developed a very original perspective of genius, but has also systematized and analyzed in detail all of the scholarly literature relating to this subject; Nacy Andreasen, who has explored the neuroscience of genius; and K. Anders Ericsson, who sought to identify the winding path that greats in every field must pursue to achieve excellence.

In Chap. 1, we will deal with the history of the concept of genius, i.e., how this idea was born and how it has been transformed over the centuries. In Chap. 2, we will examine some psychological constructs akin to genius, i.e., intelligence, creativity, charisma, and whatnot—the perspective we will try to follow on the subject of genius will, in fact, always be related to neuroscience and psychology, rather than philosophy. In Chap. 3, we will explore the Darwinian theory on the origin of genius elaborated by Simonton, Campbell, and other authors; in Chap. 4, we will attempt to examine what happens in the brains of genius people. In Chap. 5, we will review all of the open questions related to genius, focusing, in particular, on the combination of genius-madness and nature-nurture. In Chap. 6, we will explore genius in the specific domain of the natural sciences, while in Chap. 7, we will explore Ericsson's work and, more generally, the path one has to take in order to rise to the level of genius. Chapter 8, which is shorter, will be devoted to machines and the speculation concerning the possibility of creating synthetic genius minds. As you may have guessed, this is an introductory text, born with the hope of enticing you to dive into the concluding bibliography and delve deeper into these fascinating topics, in the knowledge that it is a path without end.

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1

Clearing Up the Sky. Sages, Heroes, Saints, and Geniuses

1.1 The Source. Rome and Greece

Imhotep—‘he who comes in peace’—was an official of Pharaoh Djoser, and the architect who built the Step Pyramid of Saqqara. He was also high priest of the Sun-God Ra at Heliopolis. Given that he lived towards the end of the twenty-seventh century BC, not much is known about him from a historical point of view, except that he was later deified over a period of time. Imhotep is probably the first genius that we can historically identify. Not that the term ‘genius’ was applied at the time. For that to happen, we have to wait for the Roman era, but for the word to take on its modern meaning, we have to wait for the era from which this adjective derives—‘modern’ indeed.

The Modern Age, for its part, has done away with a whole series of intermediaries that traditional culture offered us common mortals in order to bring us closer to the divine. Demigods, demons, angels, spectres, as well as saints, the blessed, martyrs and magicians. Heaven therefore remained empty, but not for long. What took the place of these characters, real and fictional, was a new type of figure, a set of exceptional men and women who coagulated around themselves a kind of informal religion, which we could define as ‘the cult of genius’. Supporting this interesting thesis is a historian from Dartmouth College (Hanover, New Hampshire), Darrin M. McMahon, who has

devoted an excellent book to the subject in question that we highly recommend, *Divine Fury*.¹ In the course of this chapter, we will rely heavily—albeit with a few distinctions—on McMahon’s work.

The contemporary use of the label ‘genius’ dates back only a few centuries, but the fascination with human eminence is as old as humanity itself. In this first chapter, then, let us take a look at how this idea of genius developed and how we arrived at the present definition.

As far as classical literature is concerned, the term ‘genius’² appears officially for the first time in a work by Plautus, a Roman playwright who lived between the third and second centuries before Christ; in the work *Captivii*, the author narrates, among other things, the story of a very miserly character who officiates at a sacrifice of little value to his own personal genius. Yes, because, in the ancient Roman religion, this is what genius is: an individual spirit present in every person—a bit like the guardian angel in the Christian tradition, who would follow us from birth to death-, but also in things and, especially, places (the so-called ‘genius loci’). Originally, the ‘genius,’ somewhat like the ‘mana’ dear to anthropologists, constitutes a kind of elemental force that penetrates the world, a sacred power analogous to what the Romans called ‘numen’. We do not know, however, when this primal force was transformed into a series of individual spirits acting as protectors. Be that as it may, the genius, or rather the geniuses, became, at some point, personal protectors associated with human beings from birth and responsible for the temperament of the latter, so much so that, in statuary representations, the geniuses are depicted with the features of their protectors. Another word associated with this one is ‘ingenium,’ which can be translated as ‘natural disposition’ or ‘talent.’ And the two concepts manifest a tendency to merge.

After all, the figure of the genius has something profoundly religious about it, even in modern times; just think of Einstein’s well-known desire to know God’s thoughts. Einstein, the secular saint capable of understanding transcendental truths. It is precisely for this reason that we are fascinated by genius in its contemporary sense: for the fact that it can grant some of us, and therefore, by derivation, all of us, direct access to the more obscure mechanisms that preside over the workings of the world. In other words, the genius can peer through the curtain that separates superficial reality from what lies behind it, revealing a world far more complex and strange than we expected.

One thinks, for example, of the work of the American critic Harold Bloom, who, in *Genius. A Mosaic of 100 Exemplary Creative Minds*, describes precisely a hundred geniuses as cabalistic representations of God.

¹ McMahon, Darrin, *Divine Fury: A History of Genius*, Basic Books, New York 2013.

² *Genius*, from the Latin verb *gigno, gignere*, meaning ‘to generate’. Of obscure origin.

Even earlier, in 1931, the German psychiatrist Wilhelm Lange-Eichbaum, in *Das Genie-Problem*, speaks clearly of the tendency of the time to deify the figure of the genius. The author, however, is not particularly eager to submit to this cult, for that is what it is; and declaring this in the same year is the American historian and philosopher Will Durant, in his *Adventures in Genius*, according to which the religion of genius is the “final religion.” In short: all holders of genius, of whatever kind—scientific, artistic, military or whatever else—have taken the place, traditionally belonging to the saints, of mediators between the human and the divine, a transition that took place around the eighteenth century, in the European West.

Despite the growing faith in the equality of all human beings from the eighteenth century onwards, despite the French and American Revolutions, the idea of an inequality based on intellect and creation was manifested in this era. Thomas Jefferson himself spoke of a ‘natural aristocracy’ that included people endowed with intellect, creative ability and talent. Precisely an aristocracy of genius, a concept that would persist to this day, and that ends up being confused with a different concept, that of celebrity, which will lead us to speak of genius in fashion, business, sport, and so on.

Admittedly, the concept of genius is a product of Western modernity, but this has not prevented other cultures from celebrating the mental abilities of, for instance, Brahmins, Buddhist monks, rabbis, and so on. Genius is a label that we tend today, therefore, with a certain degree of legitimacy, to apply retroactively to people from other eras and other cultures. With the risk of committing attribution errors, however: be careful not to confuse genius, whose main attribute is originality, with the figure of the sage, dear to many cultures—the Chinese, for example.

The cult that modern Europe reserves for the almost blasphemous originality of genius does not mean, of course, that there was no creation, innovation or imagination before now; however, previous eras, and, in particular, the Greek tradition of *hybris* and the Judeo-Christian tradition of a single creator God, caused originality to be somewhat sidelined, promoting the idea that there is nothing new under the Sun and that everything is an imitation of something else. Since to disagree with this view entails an accusation of hubris, arrogance and blasphemy, one can understand how courageous the new vision of human creativity that has emerged in modern Europe is. The modern cult of genius is, in some respects, a direct attack on God.

Since, then, willingly or unwillingly, we are forced to trace this history of genius before the current use of the term in question, from what or whom do we begin? From the wisest of mortals, McMahon suggests, from that Athenian philosopher who proclaims he knows nothing: Socrates, indeed. Right

now, though, we are not so much interested in his philosophy as in another aspect of his life. That is, his *daimonion*, that entity of divine origin that, according to him, holds him back from doing something he set out to do. The *daimonion*, diminutive of *daimon*, from which we derive our ‘demon’.

It is not such a strange idea. After all, in that era, the idea of minor spirits acting as guardians was quite widespread among ordinary people. These demons represented a kind of intermediary between the world of humans and that of the gods proper, and werew also used to explain insights and abilities beyond the ordinary. In fact, these demons also acted as possessors of people with poetic and artistic abilities, which would therefore not be considered innate, but to have come from “elsewhere.” And the poet would therefore simply be a passive receptor of the messages of the Muses, who possess him or her—an idea supported, for example, by Plato himself, in dialogues such as *Ion* and *Phedrus*, which were very influential on the later interpretation of the nature of genius. In short, the Platonic idea would only come to settle into later thought, coagulating into the Latin idea of ‘*furor poeticus*.’ Socrates’ disciple thus rails against the earlier Greek idea of ‘*technê*,’ of practical skill in need of cultivation, a trait that contemporaries also attributed, at least in part, to poetry. For philosophy, history is different: it can be learned, that is, one can be trained to be a philosopher. The concept of poetic fury would be opposed by Plato’s most famous disciple, Aristotle, who saw the mind as the source of his own imaginative abilities.

If, a hundred years before Plato, the poet Pindar had compared innate capacities with acquired capacities and argued in favour of the former—identifying nature and inspiration, thus not seeing them as opposites—, Aristotle, in his *Poetics*, rather tries precisely to distinguish natural capacities and inspiration. In particular, the Stagirite contrasts poetry as a gift of nature with that which is instead produced by a “strain of madness” that drags the poet “out of his proper self.”

1.2 The Christian Era and Modernity

In any case, in the Christian era, these intermediary figures are replaced by characters of a different type: first of all, the martyrs, and later the saints, who thus assume the role that belonged to the Roman *genii*, as witnessed by art and iconography, as well as popular devotion.

But if there is one figure that, in the Christian era—and particularly from the Renaissance onwards—will influence the later figure of the genius, it is that of the magician. Take, for instance, the Germanic myth of Faust,

who sells his soul in exchange for knowledge—inspired by a real-life magician from the fifteenth century, the legend later inspired famous works by authors such as Johann Wolfgang von Goethe and Christopher Marlowe. Myths about magicians and their sometimes fatal fate represent a warning about the dangers inherent in the quest for ultimate knowledge.

To remain in the Renaissance, let us also mention Marsilio Ficino, for whom the only intermediary between humanity and God is the soul. Humanity is, in essence, the median point of the Universe, and, given this role, they can choose whether to live vegetatively, like a plant, sensually, like an animal, or intellectually, like an angel. Not only that: poets and intellectuals would be inspired by God Himself, and could use this inspiration to ascend directly to His level.

As far as the sixteenth century is concerned, we must at least mention Juan Huarte, who dedicated a treatise to the subject of genius, *Examen de Ingenios* (1575). Taking up the poetic fury described by Plato, the scholar denies its divine origin and tries to develop a physiological explanation for it, using the conceptual tools available at the time, in particular, by referring to the classical theory of humours. Not that Huarte considers genius to be something original: only God can be that, and all human work is but imitation. This fact, however, did not prevent Huarte's contemporaries, or rather, his immediate predecessors, from sanctifying, for example, an eminent artist such as Michelangelo, upon whose death rumours began to circulate concerning the incorruptibility of the body and its alleged thaumaturgic virtues.

This is not the first time that the label 'divine' had been used for an artist: just think of Dante, Petrarch, Brunelleschi. The idea that these figures should be seen as geniuses, however, dates back to Romanticism, which reinterpreted them as 'geniuses'. It must be said, however, that the Renaissance began the process of cleansing celestial space that would free Western civilisation of all of the intermediaries already named, leaving room for geniuses. The humanist Julius Caesar Scaliger, for example, speaks of the poet as an 'alter Deus,' another God, while in the sixteenth century, Torquato Tasso argues that there are two creators, God and the poet.

In the 1650s, the English philosopher Thomas Hobbes criticised the idea that artistic and intellectual ability derives from God, the Muses or some other form of supernatural possession, as if the creator subject was actually a kind of bagpipe—a Hobbesian metaphor—played by external forces. In short, for Hobbes, the source of his writings are his personal meditations, not 'enthusiasm'—being 'full of God,' a term derived precisely from the Greek 'en' and 'theos,' coined there in that period and since having become very popular, in a pejorative sense, however, often used to indicate religious fanaticism.

The seventeenth century also means John Locke and the empiricist philosophy derived from him, and thus the doubt cast by it on the concept of divine inspiration. Empiricism and criticism of enthusiasm thus give rise to a systematic attack on the mystery of genius. Among the most prominent critics—and, by now, we are already in the eighteenth century—are two intellectuals influenced by Locke's empiricist psychology and epistemology, the Anglican cleric William Sharpe—*Dissertation upon Genius*, 1755—and the French philosopher Claude Adrien Helvétius—in several sections of *On the Mind*, 1758. For Sharpe, the mind being a 'blank slate', everything is the product of education, which is imprinted on it, and this includes genius, which is not the product of nature, but of the vicissitudes of life. According to Helvétius, all human beings are endowed with sufficient memory to enable them to acquire the highest human abilities. It follows that the origin of excellence lies not in birth, but in what happens afterwards, education, the vicissitudes of life, training, luck, and so on. What is important here is that both Sharpe and Helvétius try to eliminate the mystery of genius by showing that genius people have nothing that is qualitatively different from what other people have. French philosophers such as Condillac, Turgot, d'Alembert, and Condorcet also promoted this conception, not coincidentally at a time when a profound faith in human equality was also affirmed.

These authors and this era were not exactly comfortable with the definition of the concept of genius, which was elitist by nature. This difficulty was expressed in 1711 by the English scholar Joseph Addison in an article published in the *London Spectator*. In it, Addison distinguished between two types of genius: natural geniuses, who, by nature, break the rules and produce great works—Homer, Shakespeare, and so on—and imitative geniuses, who become such through study and effort and submit to the rules of the Art they serve—e.g., Aristotle, Virgil, Milton.

And the poet Edward Young, in his work *Conjectures on Original Composition* of 1759, distinguishes between what is acquired through learning and what is produced by supernatural inspiration, an anticipation of the distinction made later between natural talent, developed through learning, and genius, granted by nature to a privileged few. This brings us all the way to the philosopher Arthur Schopenhauer, with his famous distinction—in *The World as Will and Representation*—between talent, as the ability to hit a target that others cannot reach, and genius, as the ability to reach a target that others cannot even see. These authors therefore work in the opposite direction to those who seek to 'naturalise' genius and reduce it to mere training. In short, the eighteenth century witnessed a gradual shift from a naturalised