

# Mental Illness and Creativity: A Neurological View of the “Tortured Artist”

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As advances in science bring us closer than ever to understanding ourselves, we are forced to reexamine the canon ancient folk wisdom regarding human nature. Our culture is full of assumptions and stereotypes about how the mind works, perhaps none so enduring as the legend of the “tortured artist”. The contradiction of the genius who creates great artwork despite (or because of) mental illness has been part of Western legend for thousands of years.

The image is durable, but science has not yet been able to conclusively verify or disprove it. However, while the final verdict is still out on the issue, both the folk and the scientific evidence provide tantalizing clues that this legend may be fact. A large number of studies in the past few decades support a link between creativity and mental illnesses, particularly manic depressive disorder and schizophrenia. Although the support is tentative, it forces us to reexamine our attitudes towards the mental states that we call “diseased”, and when (and if) treatment is appropriate. If mental illness can produce powerful and important art, then perhaps, instead of trying to eliminate them by medication, we should embrace these mental states as valuable in their own right.

A possible link between mental illness and creative output has been documented throughout history. As far back as the 4th century B.C., the connection between “divine” inspiration and altered mental state had already been made, prompting



## “The Scream”

Edvard Munch painted “The Scream” in 1893. He once said, “Sickness, insanity and death were the angels that surrounded my cradle and they have followed me throughout my life.”

Credit: [http://www.students.sbc.edu/kitchin04/artandexpression/edvard\\_munch\\_the\\_scream590%5B1%5D.jpg](http://www.students.sbc.edu/kitchin04/artandexpression/edvard_munch_the_scream590%5B1%5D.jpg)

Plato to expound in the dialogue the Phaedrus: “Madness, provided it comes as the gift of heaven, is the channel by which we receive the greatest blessings... Madness comes from God, whereas sober sense is merely human.” The association gained strength in the popular imagination throughout time, as scores of famous “mad geniuses” provided fuel for the stereotype. The idea was especially powerful for the Romantic artists, who self-consciously embraced the image. Lord Byron expressed this self-created cult of the “tortured artist”: “We of the craft are all crazy. Some are affected by gaiety, others by melancholy, but all are more or less

touched”. As Byron’s declaration attests, at this point the association between diseases of the mind and artistic merit was so pervasive that it became almost a self-fulfilling prophecy. To be a serious artist, one needed to be “touched”, spurring some artists to actually mimic madness or eccentricity in order to be more respected for their creative work. Such tricks of self-presentation are anomalies, however, compared to the genuinely sick.

The list of afflicted artists is staggering, and spans all areas of art. Many of the most iconic figures in the modern Western canon, including the poet T.S. Eliot, the composer Irving Berlin, and the painter Georgia O’Keeffe were formally institutionalized at some point in their careers. Others, including the writer Virginia Woolf and the artist Vincent van Gogh, actually ended their own lives because of mental illness. It seems almost impossible that so many central figures in the arts could be connected in such a specific way serendipitously – merely listing the artists who have suffered from mental illness suggests that mere chance isn’t responsible, that a scientific explanation for the link must exist.

Some of the first research in this area focused on simple correlation studies, looking for quantifiable evidence that mental illness is more common among creative people. In a 1987 study, Dr. Nancy Andreasen of the University of Iowa found that a sample of creative writers had significantly higher levels of bipolar disorder than a control group

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of similar intelligence levels. Andreason discovered that the writers' first-degree relatives were also more likely both to be creative and to be predisposed to mental illness, implying that the two traits are genetically linked.

A later study, by Dr. Arnold Ludwig, a professor of Psychiatry at the University of Kentucky, did not look at a clinical measure of "creativity", but rather examined how mental illness associates with cultural influence. Ludwig examined the lives of 1004 "eminent" individuals throughout history (Subjects were declared "eminent" if a biography had been written about them and reviewed in the *New York Times*). This test confirmed that there was a significantly higher prevalence of mental illness in individuals involved in creative pursuits (poets, fiction writers, visual artists, musicians and composers, and those involved in theatre) than in other professions, such as business, exploration, public office, natural science, or the military. The trend spanned all mental illnesses studied, including depression, mania, severe anxiety, and suicide.

Other studies and reviews have been more reserved in their claims, but many acknowledge a connection. A 2004 meta-survey by the Finnish psychologist Erika Lauronen found that of 13 published correlation studies, all but one of them support some sort of connection between mental illnesses and creative temperaments.

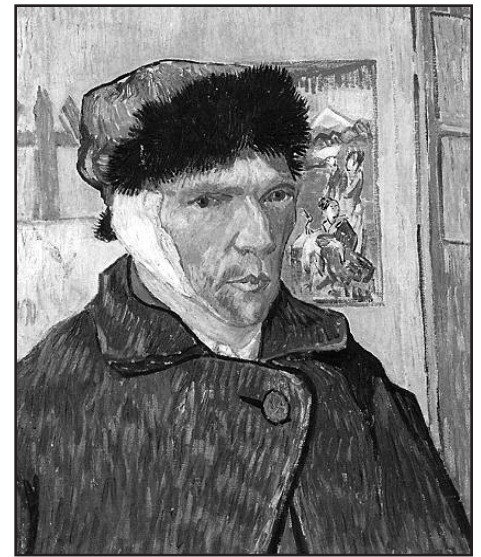
Unfortunately, these studies are limited in their scope, as measures of "creativity", "output", and even "mental illness" are by definition vague. Because the terms are so unclear, it is difficult to distinguish a significant correlation. Several authors, including Daniel Nettle of the *Psychology in Behavior* and

Evolution Research Group at Newcastle University, have concluded that the supposed link is only an artifact - while creative thinking may sometimes be superficially similar to psychotic thinking, the two are not the same. Nettle emphasizes a distinction between psychosis, or "actual madness" and psychotism, "the personality dimension which predicts, among other things, the predisposition to psychosis." He explains that predisposition to psychosis exists on a continuum, like height or weight, and that individuals on the higher-risk end of the scale may also have certain creative tendencies.

Nettle and his fellow skeptics highlight a valid point: that while a connection may exist between these two traits, it is not necessarily causal. Great creativity can exist without mental illness, and vice versa; the fact that both are likely to occur together means that they are indirectly linked, either by similar neurological mechanisms or genetically.

For more concrete evidence of how the two traits might be related, researchers have attempted to identify the neurological similarities between mental illnesses like manic depression and schizophrenia and the creative mind. Such studies have produced some persuasive evidence that the connection is real.

The biological support invokes the frontal lobe of the brain - the main connection between the temporal and parietal lobes, where knowledge and concepts are stored. Unusual activity in the frontal lobe, and in particular the prefrontal cortex, is characteristic of both schizophrenia and manic depression. Hyperactivity in this region may cause a person to draw unusual connections between seemingly unrelated items or ideas, resulting in the delu-



**"Self-Portrait with Bandaged Ear"**

Vincent Van Gogh painted this self-portrait after he cut off his left earlobe when getting into an argument with friend and artist Paul Gauguin. Historians speculate that Van Gogh may have had schizophrenia.

*Credit: vggallery.com*

sions of the paranoid schizophrenic or mania. Activity in this area of the brain is also tied to the neurotransmitter imbalances characteristic of these illnesses. Schizophrenia has been linked to high levels of dopamine in the prefrontal cortex, leading to delusions, hallucinations, and disorganized thought processes. On the other hand, manic depression may involve cycling levels of norepinephrine in the frontal lobe; high levels may be responsible for the depressive symptoms, while low levels result in novel connectivity within the frontal lobe, and creative or bizarre ideas.

It is not hard to see how these symptoms might be loosely analogous to creative processes - drawing unusual connections or thinking in a unique way are hallmarks of the artistic mind. But the traits of creativity are not only descriptively similar to some of the side-effects of mental illness - the neurological brain states are actually the same.



**"Untitled (Vivian Girls)" (detail)**

Henry Darger spent some of his childhood in an asylum and lived most of his adult life as a recluse. It was only after his death that his watercolor paintings and manuscripts were discovered by his landlord.

*Credit: [hammergallery.com](http://hammergallery.com)*

According to a 2005 paper by Dr. Alice Flaherty of Harvard Medical School, creative thinking, like manic depression and schizophrenia, also involves unusual frontal lobe activity. Flaherty explains that "frontal lobe deficits may decrease idea generation, in part because of rigid judgments about an idea's worth". Other research has substantiated this connection; a paper by Dr. Kenneth Heilman at the University of Florida explains that unusual activity the frontal lobe could be responsible for combining the information stored in the parietal and temporal lobes in innovative ways.

More than the same brain region, the same neurotransmitters in

that region seem to be responsible in both mental illness and creativity. Flaherty explains how atypical dopamine levels can not only cause schizophrenic symptoms, but also "[influence] novelty seeking and creative drive". In this way, both the physical and chemical evidence suggest that mental illness and creativity are extremely similar states of mind, if not identical.

It is impossible for any scientist to quantify if and how a mental illness supplies an artist with innovative ideas, but some of the effects of mental illness on the artistic process are more tangible. For example, in manic-depressive artists, periods of mania are often associated with increased excitability, inspiration, and massive output. These emotions may come across in more daring, large-scale, or uninhibited pieces. The manic artist may feel unfettered from societal expectations and norms, more confident in his most far-fetched ideas; at the same time, the energy of mania can help the artist focus and complete an enormous amount in a short period of time. Moreover, some manic-depressive artists also credit their depressed periods with giving them important insights that manifest in their work; as Jamison puts it, "many artists and writers believe that turmoil, suffering, and extremes in emotional experience are integral not only to the human condition but to their abilities as artists.

Schizophrenia can also have dramatic effects on an artist's work. As described, schizophrenia is characterized by disturbances in thought, language, emotions, and activity, often culminating in full blown delusions or hallucinations. In this way, the illness actually alters perception and cognition to such an extent that the individual experiences

life in a unique way. Some schizophrenics are able to communicate the fantastical thoughts brought on by their disease into images, music, or prose. The result is often strikingly alien and thought provoking.

The value of the innovation born of mental illness is illustrated in the rising popularity of "naïve" or "outsider" art. Pieces by painters like Henry Darger or Adolf Wolfli, two mentally ill artists dismissed as "crazy" during their own lifetimes, are now being bought at auction and displayed in museums.

What is it about these unusual works that make them valuable to us? V.S. Ramachandran of the University of San Diego has studied the neurological impact of art for years, trying to answer the question "How does the brain respond to art"? What he has found is that there are certain artistic ideals - images, such as the face, that when exaggerated and distorted are still recognizable. For these "artistic ideals", a novel presentation - as in Picasso's cubist works - can stimulate the brain in a pleasant way. Ramachandran explains: "There are specific types of distortion... the idea of art is to change the image in some way to more optimally titillate these 30 visual areas of the brain and excite visual emotions." By altering images in particular ways, art can have a more powerful impact on the visual and limbic brain areas than reality - causing an emotional resonance, a sense of meaning and beauty that the real world rarely produces. However, according to Ramachandran's theory, novelty is a crucial ingredient in this reaction, and for an artist, novelty can be difficult to achieve. In this sense, then, mental illness may be an advantage, allowing the artist access to brain connections and visions that others cannot imagine.

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Thus far, we have seen that manic depressive disorder and schizophrenia are both significantly more prevalent in artists than in the rest of the population, that neurologically they share similarities with the biology of creative thinking – in short, that these altered mental states could indeed contribute to creativity and artistic production. Knowing that this connection is scientifically supported, how are we to ethically treat these illnesses?

The mere fact that devastating mental disorders might be able to positively affect an artistic career and to create treasured works of art makes the status of the disorders more uncertain. Some scientists, like Prentky, dismiss such worries, claiming that the two conditions are only indirectly related, and that treating the disease does not affect the artistic side. However, many patients think otherwise. The painter Edvard Munch voiced the concerns of many mentally ill artists facing treatment: “[My troubles] are part of me and my art. They are indistinguishable from me, and it [treatment] would destroy my art. I want to keep those sufferings.”

Munch’s fears are not unfounded. While the debate rages as to whether illness can actually be helpful for creating art, as Munch suggests, medication does have measurably detrimental effects on artistic output. Jamison reports that manic-depressives treated with lithium often complain that life feels “flatter”, “slower”, and “more colorless”; the main reason for stopping medication is missing the hypomanic periods of intense productivity. Similarly, the antipsychotic medications used to treat schizophrenia primarily target the positive symptoms – delusions and hallucinations – but may not relieve the negative symptoms

of reduced motivation and lack of emotion. Such treatment can leave the patient feeling sedated and uninspired – and, as a result, less able to create visionary artwork. For both of these illnesses, treatment is a risk with the potential to kill creativity and stifle a career. While in the most severe cases, medication is unquestionably helpful, for many mentally ill artists, the question of whether or not to medicate is problematic.

Complicating the situation even more, for many potential patients, the treatment question is not a personal decision. Well-meaning family and friends can pressure an individual to “get help”, and many doctors are quick to medicate. Moreover, talk of legislation enforcing treatment for the severely mentally ill has been diffusing through the media since the Virginia Tech shooting. Proponents explain that untreated mental illnesses are dangerous both for the individual and the community. However, while there is no questioning that mental illness can sometimes lead to violence or self destructive behavior, the benefits of mental illness are often left out of these discussions.

If treatment of mental illness can indeed hinder artistic innovation or output, then we have a lot to lose from overmedicating future Woolfs or Munchs. Even if legislation never comes to fruition, we must be aware that the pressures of our society – a land of Prozac and Ritalin, where the motto seems to be that all heterogeneity can be fixed with a pill – make the role of the “tortured artist” ever more difficult to fulfill.

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