

# ‘Craziness and Creativity’: a review of bipolar disorder and the artistic temperament

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## Abstract

“We of the craft [poets] are all crazy,” remarked the 18th century British romantic Lord Byron about himself and his fellow poets (1). Implied in this statement is the notion that there exists a special kind of relationship between creativity and being “crazy”. Moreover, there is a certain form of “craziness” in particular that generally tends to be associated with the arts, certainly in the public mind, and that is namely manic-depressive illness. The ancient Greek philosopher Socrates discussed artistic “madness” or possession by the Muses as follows: “If a man comes to the door of poetry untouched by the madness of the Muses... he and his sane compositions never reach perfection, but are utterly eclipsed by the performances of the inspired madman.” (4). More recent empirical research employing systematic and biographical methodologies reveals that there is an association between manic-depressive illness and the artistic temperament. Professor Kay Redfield Jamison spearheaded research on live artists and revealed that there is considerable overlap between intense creative states and hypomania (42). The purpose of this systematic review is to present historical perspectives and contemporary research evidence that supports or refutes John Dryden’s notion that: “Great wits are sure to madness near allied, and thin partitions do their bounds divide”.

Key words: manic-depression, bipolar disorder, poetry, artistic temperament, melancholia.

## Introduction

“We of the craft [poets] are all crazy,” remarked the 18th century British romantic Lord Byron about himself and his fellow poets (1). Implied in this statement is the notion that there exists a special kind of relationship between creativity and being “crazy”. Moreover, there is a certain form of “craziness” in particular that generally tends to be associated with the arts, certainly in the public mind, and that is namely manic-depressive illness. The association between ‘creativity and craziness’ is one of the oldest and most contentious of cultural notions. Given that the litany, both historical and contemporary, of eminent poets, playwrights and other artists who suffer from mental illness is substantial (2) the purpose of our investigation is to clarify if there is empirical evidence that supports that there is, indeed, an association between bipolar disorder and the artistic temperament.

## Method

A literature search on bipolar disorder and creativity was performed. Arguments that were the most compelling in supporting or refuting an association between the artistic temperament and psychopathology were extracted and coalesced.

## Historical perspectives

In Greek mythology, Dionysus, son of Zeus, and a mortal mother, was afflicted with madness while young and episodically subject to both great ecstasies and suffering. As the god of wine (3) Dionysus induced frenzied ecstasies, madness, and savage brutality in those around him. Significantly, much of the greatest poetry in Greece was written for Dionysus.

By the time of Plato and Socrates, common lore held that priests and poets communicated with the gods through inspired “madness”. Socrates discussed artistic “madness” or possession by the Muses: “If a man comes to the door of poetry untouched by the madness of the Muses, believing that technique alone will make him a good poet, he and his sane compositions never reach perfection, but are utterly eclipsed by the performances of the inspired madman.” (4).

The eighteenth century, which associated moderation with genius, was almost completely reversed by the nineteenth century Romantics, who once again emphasized not only the melancholic side, but also the more spontaneous and inspired qualities of genius.

## Defining and assessing creativity

One of the challenges faced by researchers on creativity is defining the term creativity itself. Up until the early 20th century, “creative” individuals were said to have “genius.” The landmark study of Lewis Terman, who prospectively followed a group of highly gifted children over many decades, was entitled “Genetic Studies of Genius.” (5)

In Terman’s study “genius” was defined as having a high intelligence quotient (IQ) on the TQ tests that Terman himself had pioneered. Interestingly, as Terman and his group followed these high-IQ participants longitudinally into adulthood, they observed that they were generally more successful than average, but that very few of them actually made significant creative contributions, thereby supporting the argument that having a high IQ is not the same as being creative. That is to say, strictly speaking, ‘creativity’ and ‘intelligence’ are not necessarily one and the same, albeit they may share similar features. It is thought-provoking that in a separate study, hypomania has been found to increase intellectual functioning on the Wechsler Adult Intelligence Scale (6). The relationship between intelligence, creativity and bipolar disorder is beyond the scope of this article. However, future studies in this area would be an interesting line of research.

Although there may be lack of consensus amongst those engaged in research on creativity studies, a definition that the authors favour is one that purports that creativity is the ability to produce something that is novel and also useful in a very general sense (7). In fact, most definitions of creativity emphasize novelty and originality, balanced against utility. That is, creativity can be thought of as: “The development of novel solutions that work” (8).

The literature on creativity provides a vast array of paradigms and approaches to assessing the different definitions of creativity. Scientists have conducted research on the abilities that support creative thinking and problem-solving in laboratory paradigms. At a broad level, tasks can be divided into tests of convergent thinking, in which there is one correct answer, and tests of divergent thinking, designed to measure the ability to generate unique and diverse solutions. Many of these measures are based on conceptual models of creative thought.

It is noteworthy that in a meta-analysis of 36 studies, psychopathology scores were found to be robustly related to higher scores on measures of divergent thinking,  $g=.50$  (9). Divergent thinking has been found to be positively related to mania risk, but was not found to be elevated among persons diagnosed with bipolar disorder (10).

## Autobiographical narrative

Far and away the commonest methodology utilized to understand whether bipolar disorder is associated with creativity has been to analyse biographical and/or autobiographical narratives of eminent personages with notable creative accomplishments who were suspected of having mood symptoms. In these samples bipolar disorder is clearly overrepresented, particularly when milder forms of the disorder are considered. These findings seem to be consistent across methodologies, in that similar results materialize from research that has a more direct assessment of bipolar symptoms. However, given the concerns about reliability, bias and small sample size, findings on studies of biographical and autobiographical narratives must be considered tentative at best.

## The role of psychological pain in creativity

Learning through intense, extreme, and often painful experiences, and using what has been learned to add meaning and depth to creative work, is probably the most widely accepted and written about aspect of the relationship between melancholy, madness and the artistic temperament. John Berryman, a poet and manic-depressive who eventually committed suicide, described the role of ordeal in his artistic work. "My idea is this: The artist is extremely lucky who is presented with the worst possible ordeal which will not actually kill him" (12). Poet Antonin Artaud's view - that art first heals the artist and subsequently helps to heal others - is an ancient one, inextricably bound to the belief that "madness" and the arts are causally linked.

Creative work can act not only as a means of escape from pain, but also as a way of structuring chaotic emotions and thoughts, numbing pain through abstraction and the rigors of disciplined thought, and creating a distance from the source of despair. To the extent that an artist survives, describes and then transforms psychological pain into an experience with more universal meaning, his or her own journey becomes one that others thus can better protected take (42).

## Research methodologies in bipolar disorder and creativity

In one of the most widely cited studies of creativity in bipolar disorder, Richards and her colleagues reported findings using the Lifetime Creativity Scale (13) a comprehensive structured interview for assessing lifetime creative accomplishments, as defined by major endeavours that are original and objectively recognized by others as meaningful contributions. Peak lifetime ratings of accomplishment were higher among 33 persons with bipolar disorder than among the controls with no history of mood disorders or schizophrenia (14).

Choosing a creative occupation and achieving success in that area could be the end product of many different qualities of an individual or his or her context and circumstances. In a meta-analysis of 29 studies involving a sample size of 4,397 participants on personality attributes associated with choosing artistic occupations, Feist et al. (15) discovered the largest effect sizes were for the character trait of impulsivity (mean  $d=.75$ ). An explanation for this is that impulsivity may help promote expression without constraint, fostering the creation of more unique ideas.

Several studies have documented heightened impulsivity within bipolar disorder, during manic episodes (16) as well as during remission. (17) Perhaps of most significance and importance, studies now suggest that impulsivity can predict the onset of the disorder among those with subsyndromal symptoms (18).

Beyond the personality feature of impulsivity in occupational choice, Feist (19) also found that persons in creative occupations obtained consistently higher scores on measures of Openness to Experience ( $d=.44$ ). Openness to Experience has been related to many aspects of creativity, including creative accomplishment, engagement in creative daily activities, and divergent thinking (20). Several studies have suggested that Openness to Experience is elevated among individuals with bipolar disorder compared to controls with no mood disorder (21). Openness to Experience also appears to be positively correlated with risk for mania (22).

It has been argued that commitment and effort are major predictors of success in creative efforts (23). In meta-analyses of the predictors of creative accomplishments in both science and arts, Feist et al. identified substantial evidence for the importance of ambition and drive (24). A large body of evidence indicates that bipolar disorder is related to a drive to succeed in achieving goals. A number of studies have also documented that bipolar disorder is related to self-critical attitudes about the need to attain lofty goals (25).

It is important also to add that large-scale studies have documented higher rates of accomplishment in first degree relatives of those with bipolar disorder compared to the general population (26). One idea is that family members may experience the heightened ambition but be unencumbered by

symptoms, resulting in unusual levels of success (27). Heightened levels of accomplishment also appear to be a pre-onset characteristic of bipolar disorder; a recent study found that extremely high levels of scholastic accomplishment were predictors of the onset of the disorder (28)

## **The role of the depressive dimension of bipolar disorder in creativity**

Because bipolar disorder can involve depressive episodes as well as manic symptoms, the potential role of negative affectivity and depression has been the focus of inquiry when considering if there is an association between manic-depressive illness and the artistic temperament. Indeed, Sir George Pickering has argued that, while depressed, a creative person may be in an incubation phase during which ideas may grow (29). This is then followed by a very creative period after the person emerges from the depression; he cites Charles Darwin, Marcel Proust, Sigmund Freud and Florence Nightingale as examples. Such examples are, of course, anecdotal and come with their attendant limitations.

It has been theorized that negative emotions may be useful for creativity, particularly for critical thinking (30) and perseverance (31). This idea has been a major research focus, with more than 63 studies considering the role of affect on creativity (32). The findings of two meta-analyses have identified no impact of negative affect or sadness on creativity tasks (33).

Beyond negative affective states, it has long been argued that depression might be related to higher creativity. Researchers conducting biographical studies, for example, have noted high rates of depression in authors, musicians and other artistic groups (34). Despite this, in studies with direct assessments of depression, depressive symptoms were negatively related to lifetime ratings of creativity (35), to measures of divergent thinking such as the Torrance Creativity scales (36) and to self-ratings of creativity (37). Given these findings, it would seem unlikely that the elevations of creativity within bipolar disorder would be explained by negative affectivity or depressive symptoms.

## **The role of the mania in creativity**

Positive emotional states, in contrast, may broaden attention and thinking, widening the array of percepts, thoughts, and images that come into awareness (38). Fredrickson's broaden-and-build theory of positive emotions (39) proposed that the momentarily broadened mindsets triggered by positive emotions have a range of positive consequences, including enhanced creativity and cognitive flexibility. Drawing on this literature, one would expect that positive affect would enhance performance on measures of creativity. Consistent with this postulation, positive affect is related to better performance on tests that assess creativity such as a willingness to allow more atypical exemplars on the Rosch category inclusion task (40). These results therefore suggest that positive affect enhances creativity.

One of the common symptoms of manic episodes is intense euphoria. Beyond episodes, positive affectivity is elevated for some people with bipolar disorder during remission (41). Henceforth, bipolar disorder enhances performance on measures of creativity by virtue of positive affectivity, a symptom of its clinical diagnostic criteria.

The psychologist, J.P. Guilford, who carried out a long series of systematic psychological studies into the nature of creativity, found that several factors were involved in creative thinking; many of these relate directly to the cognitive changes that take place during mild manias as well. Fluency of thinking, as defined by Guilford, is made up of several related and empirically derived concepts, measured by specific tasks:

1. Word fluency, which is the ability to produce words each, for example, containing a specific letter or combination of letters.
2. Associational fluency, which is the production of as many synonyms as possible for a given word in a limited amount of time; expressional fluency, the production and rapid juxtaposition of phrases or sentences.
3. Ideational fluency, which is the ability to produce ideas to fulfil certain requirements in a limited

amount of time.

It may be that elevations in mood such as those caused by hypomania result in more creative thought; likewise, depressed mood and thinking may well lead to periods relatively bereft of creative work.

In all these aspects of creative thought, the elements of fluidity and flexibility of cognitive processing are pronounced in hypomanic states. It can be argued that the quickening and opening up of thought in an otherwise unimaginative person will not result in creative achievement. If, however, a highly imaginative person's thinking processes are hastened and loosened by mild manic states, it is likely that a distinctive quality will be added to the creative process. The grandiosity of spirit and vision so characteristic of mania, coupled with manic drive and intensity, can add an expansiveness and boldness as well (42).

## A study on eminent British writers and artists

Professor Jamison studied a group of 47 eminent British writers and artists. She was interested in looking at rates of treatment for mood disorders within these groups, as well as the nature of intensely creative episodes, the similarities between such episodes and hypomania, and the perceived role of very intense moods in the work of the writers and the artists. Virtually all the creative writers and artists (89%) said they had experienced intense, highly productive, and creative episodes. These "intensely creative" episodes were characterized by pronounced increases in enthusiasm, energy, self-confidence, speed of mental association, fluency of thoughts and elevated mood, and a strong sense of well-being. A comparison of these changes with the DSM-III criteria for hypomania reveals that mood, energy and cognitive symptoms show the greatest degree of overlap between the intensely creative and hypomanic episodes. Several of the more behavioural changes typically associated with hypomania (increased libido, talkativeness, increased spending sprees of money) were reported by only a minority of subjects. Mood changes were profound. One-half reported a sharp increase in mood just prior to the beginning of an intensely creative period. The fact that the elevation in mood often preceded the creative periods rather than being entirely a result of them is important in understanding the relationship between moods and the creative process. When the subjects were asked specifically about the importance of very intense moods in the development and execution of their work, 60% stated that such moods were integral and necessary, and 30% stated said that it was very important. The rate of treatment for affective illness (38%) was extremely high in this sample of distinguished British writers and artists. Lifetime prevalence rates for manic-depressive and depressive illness in the general population are 1% and 5%, respectively. The proportion of individuals who actually seek or receive treatment is far smaller. Therefore, the findings of this study represent a conservative estimate of the actual rate of mood disorders in the sample (42).

These findings would suggest that mildly positive moods and energy increases may be more beneficial for creativity than full-blown manic episodes. This profile fits with case reports that lithium can increase productivity for those with severe symptoms of bipolar disorder (43). These results suggest that if manic symptoms provide an advantage for creativity, it may be the mild watered-down manic symptoms that do so. That is, positive affect and energy are beneficial, but treating severe symptoms could enhance creativity.

## Mixed states

Kraepelin, in his 1921 classic textbook about manic-depressive illness, described mixed states, in which depressive and manic symptoms coexist; he conceptualized these mixed states as primarily transitional phenomena, that is, they tended to occur when an individual was going into or out of a depressive or manic state (46). Such states represent an important link between manic-depressive illness, artistic temperament, creativity, and the rhythms and temperament of the natural world. Other studies support the suggestion that these types of shifts in affect might contribute to creative processes (47).

## Causes of diminished creativity

Creativity may decline over time for those diagnosed with bipolar disorder; the neurocognitive, psychological, and social consequences of bipolar disorder could diminish creative cognition, confidence, and motivation. In the only study to examine developmental course, preferences for complex figures were lower among those adolescents who had been ill for more years (48).

It is not known whether this pattern is observed across measures of creativity. Related to state-dependent changes, little is known about the effects of medications. Some evidence suggests that lithium can lower fluency for those with bipolar disorder. Stoll et al. described seven clients who felt that divalprolex was more protective for creativity than lithium was (49).

Mogens Schou, however, who is the person largely credited for developing lithium as a treatment for bipolar disorder (50), studied a group of 24 artists. Using measures of productivity and quality of work, he found that the artists fell into three groups. Half of the subjects (12) showed great improvement; these were people who had very severe bipolar illness and found that, treatment actually enhanced their ability to create. A second group (N=6) had unaltered productivity. A third group, 6 people or 25% of the sample, had lowered productivity, although this did not necessarily occur throughout the period of treatment. Overall, notwithstanding the small sample size, these results suggest that adequate and appropriate treatment is likely to be helpful for the majority of creative people with bipolar disorder.

## Conclusion

Most of the controversy surrounding the “mad genius” versus “healthy artist” debate arises from confusion about what is actually meant by “madness” as well as from a fundamental lack of understanding about the nature of manic-depressive illness.

Any attempt to polarize thought, behaviour, and emotion arbitrarily into clear-cut “sanity” or “insanity” is destined to fail; it is contrary to what we know about the infinite gradations of disease in general and psychiatric illness in particular. Most people with manic-depressive illness never become psychotic. Manic-depressive disorder, unlike schizophrenia or Alzheimer disease is not a dementing illness; bouts of mania are almost always temporary and periods of full remission exist between episodes of illness (51).

People often believe that the creative benefits of bipolar disorder stem from cognitive processes that emerge during mania. This belief, which may deter seeking treatment, may not be true. Several studies suggest that milder symptoms may be more crucial for creativity than severe symptoms. Other findings indicate that creativity may be common among family members and those at risk for the disorder who do not experience full-blown mania.

Mounting evidence that bipolar disorder can actually be advantageous by conferring creativity can be a step towards improving public conceptualizations of this disorder and reducing stigma. Above and beyond influencing public attitudes, research demonstrates that a focus on the strengths of bipolar disorder can enhance therapeutic outcomes (52).

The clinician who treats creative people with mood disorders must, of course, be a sensitive and supportive listener. Patients are likely to work best if the psychiatrist understands the challenges and difficulties that creative people confront in the pursuit of their art (53).

## GP Comment

### What have I learned from this paper?

This is a well-written paper, putting into context the suspicion that a clinician must often have harboured of the 'mad genius'. We may come across a patient with radical thoughts who, if given the appropriate support, would perhaps reach greatness in life. If we could be less restrictive in our concept of 'normality' we could be more embracing of potentially-gifted patients, which would encourage them to realize their full potential. This is worth considering the next time we consult with a 'bipolar' patient.

In hindsight, the patient might also be considered non-conformist and hence could be stigmatized at the time, as all too often genius is only recognized posthumously.

**Vishal Naidoo, GP.**

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