

Bipolar Disorder and Exceptional Creative Ability

Isabella Kibbey

Abstract

Throughout history, a number of accomplished artists, musicians, writers, and other creative individuals have exemplified key symptoms of bipolar disorder (BD). Even hundreds of years after these figures' lifetimes, general controversy and debate has ensued concerning the true existence of a relationship between creativity and BD. Recent studies thoroughly analyze biographical information about the life and work of these individuals, determining whether demonstrated behavioral and emotional symptoms are indicative of modern day diagnoses for BD. Genetic formation of BD is additionally scrutinized to determine the degree to which suicidal leanings, impulsiveness, and alcohol abuse—each related behaviors of the BD spectrum—may contribute to creative ability. The impact of BD episodes on highly accomplished individuals in music, art, and literature has implied that the brain may respond to emotional shifts by creatively exceptional means.

Creative Process: Stages and Self-Transformation

The creative process is a complex intertwining of several neurobiological, physiological, cultural, and practical requirements. As explained by Holm-Hadulla (2013), "Talents may be realized creatively by acting in a dynamic balance of convergent and divergent cognitions and emotions" (para 5). This allows for a freeing, yet chaotic creative thought process to then be regulated and maintained by logical, reflective contemplation—a balance made dangerous by its near impossibility to knowingly establish control over. In addition, five stages of the creative process describe an overview of creative undertaking, beginning in acquisition of coherent knowledge and concluding in the discovery of its real world significance once having converged one's own ideas (Holm-Hadulla, 2013). Two key periods within this creative process as applied to extraordinary creativity are the consecutive states of incubation and illumination. Holm-Hadulla (2013) explains the former: "After acquiring knowledge and skills driven by complex motivations, the individual... must now endure a certain degree of destabilization and incoherence" (para 10). Destabilization within the creative process is not only normal, but expected; we can conclude that it is during the incubation period in which loss of control of hyperactivity and increased goal-directed activity of a manic BD episode occurs. Following this is the illumination/transformation stage, in which realization and crises both before and after illumination lead to higher levels of self-realization within a creative work (Nusrat et al., 2021). When an individual's extraordinary works of creative prowess come to light, it is one moment of complete clarity which allows for the achievement of that individual's true creative potential. Creative individuals, in their hunger for further achievement, may not realize this peak has been reached, which may explain the unfortunate path to mental asylum that many renowned creative figures have taken. Moreover, extreme transformations of the soul and mind are intimately connected to literary, social, and therapeutic aspects of one's life (Holm-Hadulla 2010). Therefore, it is likely that the aforementioned fluctuations in mental stability and their accompanying transformation of the self may have correlated to increased artistic creativity.

The Inverted U and “Mad Genius” Hypothesis

Two prominent theories which draw conclusions on the intricacies of BD are the Inverted U and Mad Genius Hypotheses. The Inverted U relationship describes the tendency of creativity to increase with bipolar symptoms, as long as those symptoms are somewhat mild, such as mild hypomania, then decrease when symptoms become more severe, such as full mania or deep depression (Greenwood 2017). The relationship proposed by Greenwood acts as an introduction to positive traits of BD in mild cases, allowing us to investigate deeper intricacies within the spectrum of BD. In addition, this blurry line between mild and severe symptoms causes creative individuals struggling with BD to constantly be on the edge of pushing themselves to induce worse symptoms. Especially variable is the biological and genetic makeup, personality, and cognitive characteristics of a person, which may affect the likeliness of a favorable outcome of creativity (Barrantes-Vidal, 2001). In many historical cases, exemplary creative achievers have experienced traumatic childhoods, genetic tendency for alcohol addiction, and other outside factors which greatly influence likelihood of BD.

The intertwining nature of madness and genius is yet another recurring, yet elusive pattern within psychology. Philosopher Plato once paradoxically claimed that when inspired, artists were literally out of their wits. To reach the level of creative excellence and almost supernatural productivity that creative figures have produced, Plato theorizes that individuals require a certain mental instability. Similarly, Montaigne claims there is only the “twinkling of a star” between a man of peace and war, or a philosopher and a fool (Clark and De La Motto, 1992). Montaigne implies that without proper restraint, even the most advanced thinkers and creative achievers may reduce to a state of madness or mental incompetence.

Yet simultaneously, there is seemingly no difference between madness and a state of creative frenzy. According to Barrantes-Vidal (2001), “The current view is that it is not severe and acute insanity that is related to heightened creativity, but the personality roots and soft manifestations of bipolar psychoses” (para 6). Again, the Inverted U Hypothesis agrees with this theory of soft manifestations of psychoses being beneficial to creative production, as long as complete and acute insanity is not developed as a result. Though creativity is viewed as one type of compensatory advantage of BD, the same affective personality traits remain associated with cognitive failures. For example, cognitive disinhibition syndrome is a broad associative horizon and a state of defocused attention related to creativity (Greenwood, 2017). This syndrome creates a sort of genetic liability established as a fault of creativity.

Robert Schumann and Music

Exploring specific examples of unique lifetime experiences which may be correlated with an individual’s creativity reveals composer and renowned musician Robert Schumann. The investigation of Bipolar Disorder and/or Creative Bipolarity: Robert Schumann's Exemplary Psychopathology reveals a self-reported melancholy never lasting longer than 2 weeks when Schumann was experiencing extreme creative tension and enhanced productivity. The Inverted U relationship discussed earlier seems to align well to explain Schumann’s periods of melancholy, as he then is reported to have been devoted intensely to his work after the passing of his brother, and was not inhibited by his creative work in the slightest until the last 2 years of his life, which were spent in a mental asylum. Again, we witness a certain transformation of melancholic moods which is unique to creative bipolarity. Creative bipolarity is defined as “the

capacity, motivation, and resilience to transform emotional stress and cognitive inconsistency into coherent artistic products” (Bipolar Disorder and/or Creative Bipolarity: Robert Schumann's Exemplary Psychopathology, para 9). Schumann, in harnessing the emotional stress of losing a loved one, produced some of his most excellent work in this period of intense devotion to music. Schumann’s piano work *Nachtstücke*, written just one year after his brother’s passing, beautifully reflects his grief through its somber, deeply reflective melodies.

A separate study investigates the relationship between music engagement and mental health to determine genetic risks and interactions of each. In recording scores for major depression and bipolar disorder as well as musical achievement, the study found that individuals with higher scores for major depression and bipolar disorder were more likely to play music, practice more music and reach higher levels of general artistic achievements (Wesseldijk et al., 2023). While benefits of musical achievement include self-satisfaction and social connectedness, levels of burnout and anxiety centered around music and the pressures of performing arts remain prominent. Expectations and comparisons are dangerous in any context, yet especially prominent in the cutthroat world of musicians. When further investigations explored depressive and psychotic-like experiences, findings indicated that music engagement and higher levels of music achievement were associated with more self-reported psychotic-like symptoms (Wesseldijk et al., 2023). This adds more credibility to an emerging hypothesis of increased levels of anxiety and psychosis-inducing stressors specifically being attributed to music practice and related pressures.

Goethe, Nasser, and Literature

The world of literature creates more trackable progress for BD within an individual’s lifetime than music, as often a writer’s works reveal their mental status at the time of writing. J.W. Goethe, one of the most creative poets of our time, suffered from severe mood swings which alternated with periods of high productivity (Holm-Hadulla, 2010). These periods were reflected in the nature of his work and characters as intentional expressions of emotion and an output for his struggle with BD. By giving literary consequences to characters which each uniquely represent conflicted and rejected aspects of himself, Goethe attempts to resolve his own dissatisfaction with how BD acts as an interruption to his creative work. For example, his character Tasso represents the severely endangered artist which is actually able to overcome gloom through being productive, as well as mastering depression with the knowledge that surrendering to it often leads to demise (Holm-Hadulla, 2010). This unique coping mechanism for BD allowed Goethe to translate his own feelings into a character in his works, and understand more fully the dangers of both alternating phases of depression and productivity.

Poet Nasser Khosrow was a clear example of the interaction between life experience and creative output. After witnessing poverty, misery, disease, and death, Khosrow had a dream which allowed him to discover the idea of truth and perfection (Nusrat et al., 2021). Khosrow’s development as an author reflected on his progression with BD, which was originally thought to be initiated by traumatic life experiences. Further understanding what causes these regressions into BD is important to addressing mental health concerns and to address the potential harmful causes of “transformations” (a stage of the creative process). Ludwig (1994), as cited by Pearson (2024), reported an increased rate of suicidal behaviour in poets (18% versus 1% in the general population). For a product to maintain meaning to both its audience and its composer, it must be almost dangerously reflective and revealing of its creator. As an increased

risk of suicide is present for poets, we can assume that their increased likelihood to struggle with creative bipolarity may be at the heart of this difference.

Implications and Future Directions

When approaching creative bipolarity from a neuroscientific perspective, we are made aware of the clinical and societal importance of remaining in full understanding of BD. Hypothesized dopamine levels are elevated to a moderately high, but not excessively high, level in manic states and individuals, and dopamine levels in the prefrontal cortex contribute to their elevated creativity (Takeuchi et al., 2021). This facilitation of dopamine reception is centralized and particularly active in the prefrontal cortex, which may indicate incapacity for adequate decision making in more creative individuals. In addition, the study composed by Takeuchi et al. (2021) found that higher BD-PRS, or a Bipolar-Polygenic Risk Score acting as a genetic estimator, leads to higher risk of BD onset as well as maladaptive psychological states and higher creativity. Greater BD-PRS can generate higher levels of CMTD (divergent thinking levels) which increase overall mood disturbance.

A causal effect may exist which allows for genetically predisposed mental health problems to change music engagement. Horizontal Pleiotropy is described by individuals experiencing mental health problems as a result of a higher genetic risk for such problems in the first place (Wesseldijk et al., 2023). This makes this specific group more likely to seek out environments which allow them to engage in musical activities to alleviate mental health problems. In addition, Vertical Pleiotropy is the influence of genes spreading from influence on mental health problems to influencing music engagement (Wesseldijk et al., 2023). This may lead to an increase in sensitivity to environmental stress. Intuitively, we believe that music is solely positive due to its creative nature, but challenging this predisposition is important to understand the risks that increased creativity may simultaneously cause.

Treatment

A “poetic wavelength” may provide new means of support in individuals with high levels of creativity and BD. Pearson (2024) introduces the concept of this wavelength, which proposes that others need to “tune in” to what is being communicated through psychosis. In doing so, he suggests that the reading and writing of poetry may support this process, again indicating that creative processes may benefit those affected by psychosis. In addition, Pearson proposes that narratives created by those experiencing creative bipolarity not only act as a description of their own experiences, but “one of the primary tools available to people in attempting to reclaim a sense of agency within their lives” (para 10). Interestingly, the same creativity which may have an effect on the depressive symptoms and development of BD becomes a comforting and expressive output for affected individuals. Barrantes-Vidal (2001) describes similarly the cycle of psychological relief in writing, which, in turn, enhances the creative quality of a given work (para 4). Imbalance in this cycle becomes dangerous, as lack of relief from writing produces less creativity, and leads to a state of tension and anxiety. In addition, the communicative abilities of psychosis and creative bipolarity become muffled, and loss of control more common. This encourages a need for both BD diagnosed individuals and those unaffected to attempt to understand psychosis and the ideas it communicates.

Interestingly, signs of psychosis often present as creative outputs of new cognitive developments or different paths of thinking. The term “clanging” is a process which combines words in a sentence based on sound rather than meaning, and “neologisms” are newly

produced words (Pearson, 2024). These unique methods of communication do not usually sit well within larger linguistic landscapes, but are largely defined by their unique departure from what might be considered common sense. An analogy of the FM radio is used by Pearson (2024) to emphasize that what emerges from the meaningless noise of radio static-or the seemingly incompetent speech of affected individuals- is only realized after taking the effort to tune in and decipher a new, unique combination of words and sounds.

Psychosis is often inaccurately presented as something that needs to be suppressed or reasoned with by logical thought, but in reality, it may be harnessed to create new concepts. We have seen in countless ways the similarities of creativity and psychosis; both involve the struggle to communicate the incommunicable, create narratives in response to lived experiences, and manifest in language or music. Studies to record creativity ask participants to produce a range of solutions to problems that have no one correct solution or apparent solutions, which allows us to glimpse the true ability of extreme creativity. Little is currently understood of the molecular mechanisms underlying bipolar disorder, and current treatments are far from maximally effective. BD in cases of creatively excellent individuals has demonstrated further research as required to establish a more full understanding and harnessing of this disorder.

References

- [1] - Barrantes-Vidal, N. (2001). Creativity & Madness Revisited from Current Psychological Perspectives. *Journal of Consciousness Studies*, 11(3-4):58-78.
https://www.researchgate.net/publication/233496421_Creativity_Madness_Revisited_from_Current_Psychological_Perspectives
- [2] - Bipolar Disorder and/or Creative Bipolarity: Robert Schumann's Exemplary Psychopathology - Combining Symptomatological and Psychosocial Perspectives with Creativity Research. (2017). <https://doi.org/10.1159/000479883>
- [3] - Clark, J. R., & De La Motto, A. L. (1992). *The paradox of genius and madness: Seneca and his influence*. Dialnet. <https://dialnet.unirioja.es/servlet/articulo?codigo=165794>
- [4] - Greenwood T. A. (2017). Positive Traits in the Bipolar Spectrum: The Space between Madness and Genius. *Molecular neuropsychiatry*, 2(4), 198–212
<https://doi.org/10.1159/000452416>
- [5] - Holm-Hadulla, R., Roussel, M., & Hofmann, F. (2010). Depression and Creativity - the case of the German poet, scientist and statesman J. W. V. Goethe. *Journal of Affective Disorders*, 127(1-3):43-9. <https://doi.org/10.1016/j.jad.2010.05.007>



[6] - Holm-Hadulla, R. M. (2013). The Dialectic of Creativity: a synthesis of neurobiological, psychological, cultural and practical aspects of the creative process. *Creativity Research Journal*, 25(3), 293–299. <https://doi.org/10.1080/10400419.2013.813792>

[7] - Nusrat Fatemi, S., Ashrafzadeh, R., & Badizadeh, M. (2021). Nasser Khosrow and Sanai Poets of Bipolar or Multipolar? (Poetic awakening from dream to reality). *Propósitos y Representaciones*, 8(SPE3), 1–17. <https://doi.org/10.20511/pyr2021.v9nSPE3.1098>

[8] - Pearson, M. (2024). The Poetic Wavelength—Tuning into the Meaningful Poetics of Psychosis. *Journal of Medical Humanities*, 46(4):729-736. <https://doi.org/10.1007/s10912-024-09896-4>

[9] - Takeuchi, H., Kimura, R., & Tomita, H. (2021). Polygenic risk score for bipolar disorder associates with divergent thinking and brain structures in the prefrontal cortex. *Human Brain Mapping*, 42(18). <https://doi.org/10.1002/hbm.25667>

[10] - W. Wesseldijk, L., Lu, Y., Karlsson, R., Ullen, F., & Mosing, M. (2023). A comprehensive investigation into the genetic relationship between music engagement and mental health. *Translational Psychiatry*. <https://www.nature.com/articles/s41398-023-02308-6>