

Creative Mythconceptions: A Closer Look at the Evidence for the “Mad Genius” Hypothesis

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Many people believe that the “mad genius” notion, which has been a favorite cultural fixture for centuries, is based on established scientific fact. Much of the evidence for the connection between great creativity and great pathology, particularly affective disorder, comes from the writings of psychiatrists Nancy Andreasen and Arnold K. Ludwig and psychologist Kay Redfield Jamison. For two decades, their studies and books have been widely referenced in both the popular and professional press without critique or comment and often without much detail, suggesting that few people have spent much time with the originals. This article examines their most influential works, encouraging readers to evaluate this evidence for themselves, because the author believes that many of their claims have had unfortunate implications for the perception of creativity and the credibility of psychological research in general. The author considers the inherent difficulties of generating any scientific findings in this area, and concludes by discussing the signs of a hopeful trend to celebrate, rather than pathologize, people with exceptional gifts.

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The “mad genius” has been a cherished cultural icon for centuries, a romantic and compelling concept that helps demystify our geniuses and make them more accessible. Thanks to books, movies, and TV, we all recognize the brilliant artist who triumphs, but then loses it all in a lemming-like march to self-destruction. The mad genius idea also neutralizes any envy of their abilities, for if we cannot share their talent, at least we don’t have their problems. What is less apparent is the impact the notion can have on creatives themselves, who even in our enlightened age are often stigmatized (Hinshaw, 2007; Leff & Warner, 2006; Webb et al., 2005)—they may be penalized by banks and landlords and prospective in-laws who consider them bad risks. Many of them are also apprehensive about their alleged greater susceptibility to bipolar disorder. But perhaps the most destructive consequence is when those who truly have serious disorders deny themselves treatment, fearing that it will diminish their gifts (Berlin, 2008; Piirto, 2004), or even “dampen [their] general intellect and limit [their] emotional and perceptual range” (Jamison, 2006a, p. 20).

The doctrine that great talent exacts a great price is so popular that few people think to question its validity. But proving it empirically is something else, given that you cannot collect an assortment of studies with different definitions and assessments of creativity and pathology—each using its own research design, with nonrandom, specialized, and wildly disparate populations—and then point to the resulting pile as being “cumulative evidence” of anything, no matter how similar the outcomes may seem on the surface.

You cannot, but people do it all the time, presenting as “scientific” conclusions that can only be suggestive, and treating studies

as definitive when they have never once been replicated. The plain truth is that the jury is still out, and may well stay there, given the research hazards that are native to this landscape. But meanwhile, many people—including too many mental health professionals and textbook writers—continue to assume that an invariable connection between great creativity and pathology has already been proven. Their conviction draws its primary strength from two sources: (a) the influential claims of psychiatrists Nancy Andreasen and Arnold Ludwig and psychologist Kay Redfield Jamison, and (b) the lack of equally strong, visible, and recurring professional statements to the contrary.

Although there are other investigators doing careful work in this field, I did not design this article to provide any comprehensive research survey or evaluation. Rather, the focus is on the most-cited works of the abovementioned trio: those hallmark references that appear within the first two paragraphs of most writing on the “mad creative,” as if they supplied a strong empirical foundation. I hope that a closer examination of their concepts, methods, and results will encourage a more realistic view of the evidence they are said to provide.

Historical Context

Great creativity has awed and baffled humankind since we first wondered who made the weather. The creativity–madness link began two millennia ago with the notion of divine inspiration, when ideas were literally “breathed” into a fortunate few. Plato called this moment “divine madness,” explaining that “all the good poets are not in their right mind when they make their beautiful songs”; for him and his peers, creative madness meant being seized and manipulated by the gods. This was a logical belief for its time, given those busybody Greek deities, but the basic idea is still compelling: the artist animated by powerful, unseen forces that s/he can neither summon nor stop. Most writers in this area begin

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by exhuming such ancestral wisdom because it adds the aura of timeless truth to the idea of creative vulnerability; *Divine Madness: Ten Stories of Creative Struggle* is a recent book about celebrities who ended badly, including Lenny Bruce and Marilyn Monroe (Kottler, 2006).

The irony is that the original Greek use of *madness* was quite different from ours: For them, it meant inspiration and illumination, and was a desirable, rather than dreaded, state. Moreover, madness was not only externally imposed but temporary, a welcome visitation that enabled creation, rather than an ongoing fragility of the creatives themselves. This was confirmed by classical scholar Ruth Padel, who combed the ancient texts searching for the familiar saying “whom the gods wish to destroy, they first make mad.” Although she reports finding nothing but “suggestive fragments” of that phrase, her discussion clarifies why mad creative advocates keep conjuring long-dead philosophers to make their case: “It has been important to hear this thought expressed in an ancient language; as if it expressed something so horribly true that we want it to be ancient. Ancient, Greek, and tragic: the adjectives give it a pedigree” (Padel, 1995, p. 5).

Whenever Plato or Seneca or Aristotle is summoned to weigh in on creative pathology, it feeds the common expectation that, sooner or later, someone will finally prove what has always been “known.” This eager faith explains the public embrace of virtually every historic proponent of the madness–creativity link, regardless of the actual scientific merit of their work.

For example, one of the famous early researchers is Italian criminologist Cesare Lombroso (1836–1909), but whenever he is cited to emphasize the long history of this investigation, people tend to note the focus of his work, rather than its specific details, for reasons that will soon become obvious. Lombroso pored over piles of biographical dictionaries, encyclopedias, letters, autobiographies, and various creative products, seeking the essence of the eminent, whom he interchangeably refers to as abnormal, morally insane, gifted, and genius. He also scrutinized their facial symmetry and skull size for special anomalies that he called *stigmata*, a term that conveys the awe geniuses inspire as well as the doom that surely awaits them. Lombroso (1895) gathered his observations into his most-referenced work, *The Man of Genius*, where he concludes that people of high ability are often small, pale, emaciated, stammering, and sexually sterile vagabonds; we also learn that they are frequently lame or hunchbacked, with prominent ears, and may possess a “cretin-like physiognomy” (pp. 5–19).

Read at the source, this is pretty laughable stuff. But Andreasen (1987) only reveals that Lombroso “argued for the hereditary nature of creativity and madness” (p. 1289), and Jamison (1993) says he provided “suggestive clues to the significantly increased rates of mood disorders and suicide in eminent writers and artists” (pp. 125–126). Neither reveals the full extent of the nonsense Lombroso actually wrote, but his view of genius as a kind of handicap continues to lend longevity to the idea.

Building on Sand

As stated above, most of the supposed scientific evidence of creative vulnerability derives from the work of just three people. First, Nancy Andreasen conducted what is often referred to as “the landmark” study, which was published in 1987; Kay Jamison followed with the most influential in 1989, and then in 1993

produced the proverbial bible of the creativity and madness movement, *Touched With Fire: Manic Depression and the Artistic Temperament*.

Two years later, with Jamison’s close encouragement, Arnold Ludwig (1995) published *The Price of Greatness: Resolving the Creativity and Madness Controversy*, a title that seems to clinch the argument all by itself. Of the three, Jamison has always been the most vocal and prolific advocate of the link between artistic endeavor and psychopathology—particularly bipolar disorder—and remains the media’s favorite “go-to” person on the subject.

During the past 21 years, these writings have become so sacrosanct that few people seem to spend much time with the originals; instead, citations keep appearing without challenge or critique, or even very much detail. Of the 10 psychology textbooks that I examined when I was still teaching and had ready access to new ones, if the authors mention the mad creative at all, they cite Jamison (always), Andreasen (often), and Ludwig (occasionally), but invariably without any evaluation of this work or acknowledgment that alternative views might be possible.

For example, the statement that “bipolar disorder is especially common among creative artists” is offered as fact, not theory, with only two supporting references cited, and both of them Jamison’s (Myers, 2001, p. 546). Sometimes editors go even further than the originals, as when one stretches Andreasen’s results into “a correlation between creative genius and [any? all?] maladjustment,” and informs budding clinicians that “the list of creative geniuses who suffered from psychological disorders is endless” (Weiten, 2001, p. 380). Another text borrows a phrase from Nietzsche to compensate for its lack of hard data: “one must harbor chaos within oneself to give birth to a dancing star” (Kassin, 2001, p. 650). Who needs science when we have such compelling poetry to make the case?

Part of the problem is access: Whereas Andreasen’s (1987) study is easily obtained from the *American Journal of Psychiatry*’s Web site, finding Jamison’s (1989) takes more persistence. It appeared in a quarterly called *Psychiatry*, which, despite its titular resemblance to the major journals in that field, is instead a relatively local and interdisciplinary effort of a psychoanalytic training institute called the Washington [D.C.] School of Psychiatry. Neither the school nor the publisher can supply a copy of the article, but those seeking more than a paraphrase can obtain the original for a small fee at infotrieve.com.

Meanwhile, I hope that the following discussion will encourage readers not to swallow the prevailing wisdom without tasting it first.

Breaking Ground: Nancy Andreasen

Although the landmark study began in 1972, it was not published until 1987. Focusing on faculty members she knew at the Iowa Writers’ Workshop, Andreasen compared the rate of mental illness in writers and their families with that of a nonwriter control group: people in law, administration, and social work, which she characterizes as “occupations that did not require high levels of creativity” (Andreasen, 2005, p. 93).

Using an interview that she alone developed, conducted, and judged—and was only available on request—Andreasen asked her participants to describe their own pathology and that of their closest relatives, then separated these reports into categories of

affective disorder using unspecified criteria of her own design (to be fair, the guidelines of the *Diagnostic and Statistical Manual of Mental Disorders*, 3rd ed., had yet to be published). Despite the inevitable contribution of experimenter bias at each of these critical junctures, Andreasen's stunning report that 80% of writers had mood disorders, compared with only 30% of nonwriters, has been used to legitimate the mad creative notion ever since.

What gets far less attention is the fact that, in the 15 years it took to conduct the study, Andreasen interviewed a total of only 30 writers. As such, to produce that 80% figure with so few participants, she had to lump together the people who recalled episodes of severe depression and mania with those who reported only a vague hypomanic experience "at some time in their lives" (Andreasen, 1987, p. 1289). This is hardly the same thing as "proving" that more than three quarters of writers are seriously disturbed, which is how her results are commonly construed.

Andreasen's (1987) sample was also too specific to fairly generalize her results. For one thing, 27 of her 30 were men, with a mean age of 37, which automatically limits her study's application to mature (and presumably White) men. Furthermore, although she claims that her group reflects a "reasonably valid cross-section of contemporary American writers," she also notes that they are "well-known," which the great majority of writers are not (p. 1288).

Finally, the Iowa Writers' Workshop has long been a famous retreat where eminent writers go to recover from setbacks and burnout (student adulation can do wonders for self-doubt). This could easily affect both the frequency and intensity of mood disorders reported by her participants, which are already susceptible to a writer's occupational tendency to dramatize.

Yet, despite all the study's drawbacks, the news that 80% of writers are "mentally ill" not only spread quickly, but was soon inflated by the popular press to encompass all creatives in general. *Psychology Today* trumpeted what it called "the striking association between creativity and manic-depression" (Holden, 1987, p. 9), and *Science News* of October 24, 1987, described the "association between creativity and affective disorders" as "close." Some professionals learned about the study a year before its publication from the author herself, during a conference on "Mood Disorders and Their Effect on Creativity" that was attended by many psychologists, including this writer (Axinn, 1986).

Before Andreasen delivered her scheduled review of past research, she distributed a summary that included this assertion: "Although the number of studies has been relatively small and the design challenges substantial, nevertheless the association [between creativity and pathology] has been systematically documented with solid scientific data." It soon emerged that these data included the 1926 *Study of British Genius* in which eugenicist Havelock Ellis (alone) diagnosed 1,020 eminent Englishmen from their entries in *The Dictionary of National Biography*, and decided that 4.2% of them were "insane." Systematic, yes. Scientific? Well, not very, especially when Ellis' original writing reveals that his definition of *insanity* extends to the dementia that often descends in later life, and that his actual conclusion was that "we must put out of court any theory as to genius being a form of insanity" (Ellis, 1904, p. 191)—that is, the opposite position from supporting the link.

Andreasen admitted some of her own study's limitations at the conference, such as diagnosing her writers' relatives without meet-

ing them, and also conceded the paucity of significant results. However, given that 2 of her 30 writers eventually committed suicide, she also stated that "issues of statistical significance pale before the clinical implications of this fact," a conviction that she repeats in print (Andreasen, 1987, p. 1289). But, unfortunately, scientific weakness will always undermine the utility of any research, regardless of its clinical urgency. It is also debatable whether, in the long run, it is more helpful to *assume* the special pathology of artists—expecting them to be easily unhinged, and subjecting them to all the resultant stigma and self-doubt—or to actually *prove* that such special pathology exists.

While the bold claims derived from Andreasen's (1987) study tend to wither under direct scrutiny, they continue to be widely disseminated. They also appear in her latest book, *The Creating Brain: The Neuroscience of Genius* (Andreasen, 2005), where she defends her diagnostic criteria as "not dissimilar" to those of the *Diagnostic and Statistical Manual of Mental Disorders*, although she still refrains from specifying what these might be. Andreasen (2005) also maintains that Jamison's (1989) study "solidly confirms" her own, even as she notes some of its serious flaws (pp. 96–97). But the fact is that there is too little overlap between the studies' fundamental components to justify such comparison.

After her Iowa study, Andreasen went on to investigate more tangible puzzles, such as brain imaging techniques; she wrote or edited 13 books and several prestigious journals, and has gained international respect and awards for her schizophrenia research. Such accomplishments in other realms lend credence to her early work, but its primary power comes from its repeated, unquestioned citation, and the chronic dramatization of its conclusions by others.

The Standard Bearer: Kay Jamison

Jamison's work is propagated in similar fashion, and often presented as if it were the last word on creative pathology. For instance, when her 1995 "Manic-Depressive Illness and Creativity" article for *Scientific American* was reproduced 11 years later in their online genius issue, it confirmed that nothing had emerged to change or challenge it in the interim (Jamison, 2006a). The publicity for her first study began well before it was published: It was covered by *Time Magazine* a full five years before finding its way into print (Leo, 1984).

Jamison's (1989) "Mood Disorders and Patterns of Great Creativity in British Writers and Artists" is cited by nearly every writer on the subject as profound evidence of inherent creative pathology. This is a function of its startling conclusions as well as the visibility of its author: Aside from giving numerous interviews (Jamison, 2002) and speeches and producing a "crazy composer" concert in 1988 (more on that soon), her work brought her a "Hero of Medicine" designation from *Time Magazine* in 1997 and a half-million dollar grant from the MacArthur Foundation in 2002. There is surely no more influential advocate for creative madness: Aside from innumerable citations by others, Jamison has promoted her beliefs in scores of articles and several popular books, particularly in *Touched With Fire* (Jamison, 1993), which is discussed in the next section.

The 1989 study was based on Jamison's interviews with 47 award-winning English poets, playwrights, novelists, biographers, and visual artists whom she questioned about their moods and psychiatric history. She essentially takes the torch from

Andreasen, who had already demonstrated “an exceptionally high rate of affective illness, especially bipolar, in their [*sic*] sample of writers” (Jamison, 1989, p. 126). But in reality Andreasen worked alone, as did Jamison, making them equally prone to the confounding risks of subjectivity and experimenter bias. Jamison also refrains from mentioning other mutual drawbacks, such as the use of hand-picked, rarefied samples of people known to the investigator; idiosyncratic diagnostic criteria; heavy reliance on self-report; and lack of significant results. As it happens, the nature of Jamison’s design itself prevented her from finding any significance: Because there was no control group, none of her results could undergo the customary statistical analyses. This is why she can report only simple percentages in her discussion. More important, the lack of a comparison group even hobbles the study’s basic assumption: that creative people are in fact different from the noncreative.

The study also contains secondary inquiries that further blur the picture with their own lack of clarity and discussion. Jamison presents two charts to compare mood and productivity ratings between her treated and untreated participants, but she offers no explanation as to what these ratings really mean—that is, how her 3-point scales were defined and derived—only that the information used to construct them came from self-report (p. 130). She also claims to have uncovered a seasonal connection between hypomania and productivity without considering the likelihood that most people living in her participants’ latitudes will have elevated moods and get less work done in the warmer [vacation] months, whether they have an affective diagnosis or not (p. 132).

The study contains other inconsequential findings that are reported as if they were important discoveries, as when Jamison points to the close similarities she can establish between hypomania and “intense creative episodes” without acknowledging how much these two states already intersect, purely by definition. But the article’s abstract continues to promise that many such overlaps are “revealed” (Jamison, 2008). Moreover, both this study and *Touched With Fire* illustrate this sample’s reported changes in mood, cognition, and behavior during their “episodes” as if they were symptoms of mood disorder, using bar graphs to dramatize the overwhelming prevalence of such pathology (Jamison, 1993, p. 129). Although this chart occupies nearly a full page, it is distended by paraphrase because the presence of one variable virtually guarantees the appearance of another. For example, “increased speed of mental associations” closely resembles “increased fluency of thoughts,” which is nearly identical to “increase in rapid thinking,” which in turn is very much like “expansiveness of ideas.”¹

But in the end, any shortcomings tend to recede in the face of Jamison’s results, which are even more impressive than Andreasen’s: Thirty-eight percent of her creatives had sought treatment for affective illness (Jamison’s sole criterion for having it), a rate she reports as 30 times greater than the general population’s. The 50% figure for disordered poets is equally astonishing unless you know that it represents only nine people, news that tends to disappear when the study is quoted—along with the fact that her 12.5% total for depression-medicated visual artists refers to just *one* person.

Of course, dividing 47 people into five categories will create groups that are too small to generate very convincing results, even if conventional statistics were used. But this detail also dissolves into the excitement of finally “proving” the link between creativity

and pathology. So does the fact that, like Andreasen and for similar reasons, Jamison collapses the disorder continuum, blurring together those who simply received psychotherapy with those who took mood-altering medications (of any kind or strength and for any duration) and those who were hospitalized.

Finally, although her participants were all British or Irish award winners in their respective fields and 87% [White?] male, with a middle-age mean of 53.2 years, Jamison (1993) applies her results to creatives of all abilities and specialties, every age and both sexes, when she concludes that “artists and writers represent a group at high risk for affective illness” (p. 133). She also told *Time Magazine* that “this study spells out pretty convincingly that there can be some very positive aspects to mood disorders, and the major one is creativity” (Leo, 1984, p. 76).

Each time such forceful claims appear in the popular and professional press with no caveats and little detail attached, it reinforces the belief that they are scientifically derived and consensually validated. This impression is further cemented each time reputable researchers acknowledge Jamison’s problematic methodology but still extol her results, as when anthropologist Daniel Nettle (2001) notes her lack of independent diagnostic verification but concludes that “Jamison knew what she was looking for, and provided ample evidence for her conclusions” (p. 142).

Much stronger criticism comes from psychiatrist Albert Rothenberg, the Harvard professor who spent nearly three decades as principal investigator of the “Studies in the Creative Process” project. Among other things, his team conducted extensive interviews and controlled experiments with many creatives. In his *Creativity and Madness: New Findings and Old Stereotypes*, Rothenberg (1990) addresses what he calls the “presumably objective” work of Andreasen and Jamison, noting the widespread inclination to soft-pedal its limitations: “the need to believe in a connection between creativity and madness appears to be so strong that affirmations are welcomed and treated rather uncritically” (p. 150).

Rothenberg’s (1990) 2,000 hours of interviews, on the other hand, lead him to the opposite position:

First, contrary to popular as well as professional belief, there is no specific personality type associated with outstanding creativity. Creative people are not necessarily childish or erratic in human relationships, as is often thought, nor are they necessarily extraordinarily egotistic or rebellious or eccentric. (p. 8)

Rather, Rothenberg discovered that what reliably identifies the creative has nothing to do with mental instability at all:

¹ This becomes clearer in *Touched With Fire* (Jamison, 1993), where she specifies her criteria for hypomania: “sharpened and unusually creative thinking,” “more energy than usual,” “elevated mood,” “decreased need for sleep,” and “increased productivity, often with unusual and self-imposed working hours” (p. 265). All these “symptoms” will be familiar to any creative person who has ever been intensely and happily focused on a new idea—their “pathology” may be more indicative of the observer’s agenda than the artist’s actual behavior. There is also some careful research that confirms the obvious: that “positive affect and concomitant increases in task motivation, energy, and cognitive focus are an outgrowth of the creative individual’s immersion in work that is going well” (Shapiro & Weisberg, 2000, p. 60).

Only one characteristic of personality and orientation to life and work is absolutely, *across the board*, present in *all* creative people: motivation . . . they want *specifically* to create and to be creative, not merely to be successful or effective or competent. (pp. 8–9)

Unfortunately, although this common denominator of steady, goal-oriented focus may be scientifically derived, it will always be upstaged by the melodrama of creative ecstasy and anguish.

It should also be noted that Rothenberg and Yale's head librarian Bette Greenberg (1976) produced *The Index of Scientific Writing on Creativity*, which contains 6,500 multidisciplinary citations spanning five languages and four centuries, from 1566 through 1974. These authors explicitly omitted "the writings of creative persons on their subjective experiences while engaged in the creative process because they are not systematic and generalizable" (p. ix). Given how often mad creative advocates present such writings as empirical data, is it any wonder that Rothenberg's name rarely appears in these bibliographies?

Although Jamison (1993) does footnote the fact of Rothenberg's opposition, she casts his unnamed objections as "a view at odds with most of the available historical, biographical, and scientific evidence," and explains his aberrance this way:

Some of his confusion appears to be based on a lack of appreciation for the subtlety, complexity, and fluctuation in the symptom patterns of manic-depressive and depressive illness, as well as insufficient awareness of the cyclic or episodic nature of these disorders. (pp. 299–300)

The suggestion that a veteran practicing psychiatrist and clinical professor would be "confused" or "unappreciative" in regard to major mental illness is puzzling, to say the least.

Touched With Fire

Touched with Fire: Manic Depression and the Artistic Temperament appeared four years after Jamison's initial study. It was an instant best seller, and remains a popular resource despite the fact that it is a difficult read, with 260 pages of text followed by 82 pages of notes. *Fire* continues the tradition of leaning heavily on anecdotal information about selected creatives, but it also brings something new to the debate: frequent and vivid descriptions of creative ups and downs by the artists themselves. Although these contribute more emotion than empiricism to the book, they do provide a strong visceral confirmation of bipolar disorder.

The tone is set from the first sentence, which features Lord Byron's sweeping verdict that "We of the craft are all crazy" (Jamison, 1993, p. 2). According to the index, this flamboyant poet appears far more often than any other person or topic in the book. He also supplies two of the seven florid chapter titles: "Their Life a Storm Whereon They Ride" and "The Mind's Canker in its Savage Mood." And although *Fire* is widely considered to be a collection of empirical evidence, the author reveals other priorities in her introduction: "The main purpose of this book is to make a literary, biographical, and scientific association, not to say actual overlap, between two temperaments—the artistic and the manic-depressive" (p. 5).

Jamison's relegation of "scientific" to third place is consistent with her objection to the "bloodless" phrasing of standardized diagnosis. Criticizing the *Diagnostic and Statistical Manual of*

Mental Disorders for its "staggeringly drossed prose," she has claimed that only poets can describe the true nature of madness (Jamison, 2005, p. 225). Impatience with the dry formalities of science could explain the current of impressionism that runs through her work, despite all who include it in that "huge body of scientific evidence" that supposedly proves that "the most creative composers and writers and artists in fact suffer disproportionately from depression and manic depression" (DeAngelis, 1989; Jamison, 1998). For Jamison, the answers seem to be absolute given that she is quick to dismiss any doubt: "Of course our studies have methodological problems, but they all point to the same association" (Gutin, 1996, p. 80).

Like the 1989 study, *Fire* contains a number of confident assertions that could use more discussion or documentation, or both. For example, Jamison proclaims that "individuals who are better-educated and from the upper social classes . . . suffer disproportionately from manic-depressive illness" (p. 74) without considering the most obvious reason: With more money to spend on therapy, and less stigma attached to going, this is also the group most likely to seek psychiatric scrutiny, and thereby acquire a diagnosis, in the first place. This claim is also unreferenced, but quite by accident this writer stumbled on very similar wording in a book by John Ratey and Catherine Johnson (1998); they trace it to a Nazi inquiry about whom to sterilize in order to eliminate mental illness from the race, research they in turn found in Jamison's earlier work with Frederick Goodwin (Goodwin & Jamison, 1990, p. 110). Maybe Jamison omitted the original source from *Fire* because the study's intent casts such darkness on the results; it could also be a simple oversight or editorial glitch. But none of this can explain all of the missing or confusing citations in her book.

Some of these are related to the lengthy table titled "Mood Disorders and Suicide in British and Irish Poets Born 1705–1805" (pp. 63–71). Of the 35 poets Jamison chose for inclusion, she judges only seven to be nonpathological, compared with four times as many whom she finds to be mood-disordered. While she bullet-points her reasons in the table, she leaves them unreferenced, instead directing the reader to the "medical, autobiographical, and biographical materials that appear in text note 29 of this chapter" (pp. 283–293). But it turns out that although this note is 10 pages long, it provides no details beyond the basics of title, author, publisher, and date; at the same time, the steady drumbeat of sources implies that the evidence for each poet's mood disorder is not only clear, but cumulative.

There is even less support for the famous list of bipolar creatives that appears in Appendix B (pp. 267–270). Arguably *Fire*'s most influential contribution (and to this writer, its most troublesome), this is where Jamison assembles her 166 dead writers, artists, and composers with "Probable Cyclothymia, Major Depression, or Manic-Depressive Illness," although whenever people refer to the list, the word "probable" tends to drop off. Even with icons that identify attempted and completed suicides, the book's format makes it virtually impossible to analyze the strength of each case for oneself. For one thing, there is no bibliography to facilitate source-checking; for another, it can be a daunting exercise to integrate the notes, given how much page-flipping is required to match them to the text—and even then, they are not always helpful or clear.

There is also considerable ambiguity about which diagnostic criteria were used to assemble the list, perhaps because Jamison considers self-report of treatment to be a more stringent measure of affective disorder (Jamison, 1989, p. 126; 1993, p. 76).² In any event, it is confusing when Appendix A (“Diagnostic Criteria for the Major Mood Disorders”) bundles the milder conditions of hypomania and cyclothymia with major depression and mania (dysthymia is unaccountably missing). This section also includes, without comment, both the official “Diagnostic Criteria for Cyclothymia” from the revised third edition of the *Diagnostic and Statistical Manual of Mental Disorders* and additional “Clinical Criteria for Cyclothymia” from an article by Akiskal, Khani, and Scott-Strauss (1979). The reader assumes that these criteria are provided because they were used, but there is no specific guidance as to whether, how, and how well they were actually met. Furthermore, given the lack of clinical information on people who are so long in their graves, Jamison (1993) relies on such clues as “possibly transient hypomanic episodes” (p. 199), “interest in spiritualism,” and “thought by others to have had at least a trace of insanity” (p. 168).

Sometimes the evidence is even thinner than that. For instance, given a vague memory of Ralph Waldo Emerson’s transcendental serenity, and therefore surprised to see him on a mood-disordered list, I checked the index for Jamison’s rationale and found four pages where his name appears. On page 236, Emerson is 1 of 50 people who had “at least one seriously affected first-degree relative,” although there is no explanation or citation to illuminate why these particular 50 were chosen. On the bottom of page 247, leading into the top of page 248, Emerson makes a mild comment about the random inconvenience of writer’s block, and the fourth citation is just his placement on the list (p. 268). None of this would seem to qualify Emerson as a “mad creative,” except by association with the more obvious candidates, particularly those who tried (26) or succeeded at (41) suicide, who comprise a full 40% of Jamison’s selections. Walt Whitman gets a similar treatment, with one less mention: On page 220, Jamison says he shared Samuel Coleridge’s “cosmic temperament,” and the other two citations signify, once again, a place among the unfortunate relatives, as well as on the list itself.

A casual glance at some other favorite artists (Michelangelo, Irving Berlin, and Noel Coward) revealed just one appearance for each of them: the list. Finally, composer George Frideric Handel makes the cut despite Jamison’s nearby note that “the relative lack of autobiographical materials and reliable contemporary medical accounts makes any diagnostic formulation necessarily tentative” (p. 298). This is even more puzzling if you know that she already notified the public that Handel wrote the Messiah “during a manic high” (Leo, 1984), and he was one of the five allegedly bipolar composers who were “honored” by the 1988 concert that she produced. This was where the National Symphony Orchestra performed some of the slow, sad work written by Handel, Gustav Mahler, Hector Berlioz, Robert Schumann, and Hugo Wolf as evidence of their depression, and some that was jolly and fast to document their mania (Jamison, 1988; DeAngelis, 1989). This performance became a PBS video that is still available from the Depression and Related Affective Disorders Association. The concert was also re-created live, nearly 20 years later, by the Mansfield (Ohio) Symphony, with Jamison featured as speaker (October 27, 2007).

At this point, the question becomes: How many of the list selections rest solely on Jamison’s say-so? But even if the answer were “all of them,” given her prominence and the common expectation that all great artists are wired for psychopathology, for most people her opinion alone will suffice. The list also reflects Jamison’s view of creative potential as a kind of steady state, so that any dips or peaks in output must be a function of some interfering pathology. She illustrates this by tracking Robert Schumann’s work pattern, supplying a chart that assigns his most prolific years to hypomania and his least productive to depression (Jamison, 1993, p. 146; 2006a, p. 20). To further underscore his madness, Jamison (2006b) recently presented a string-quartet version of her disturbed-composers concert that focused only on him.

As it happens, many people cast Schumann as the prototypical mad creative because of solid documentation of his leap into the Rhine and his last two years in an asylum. But the bipolar explanation overlooks the long-term impact of the syphilis that probably killed him, and the fact that the psychological mutations of its later stages could themselves account for his suicide attempt and subsequent confinement. This explanation has been considered for decades (Ostwald, 1985; Reich, 1985/2001), gaining more credibility each time more original source material is discovered and translated (Reich, 1985/2001; Hayden, 2003; Worthen, 2007).

In his biography, John Worthen (2007) notes the prevailing tendency to paint all of Schumann’s life with the same pathological brush. This approach is especially popular with those who use the “psychological autopsy” technique for diagnosing the deceased. Worthen’s explanation of Schumann’s bipolar verdict is relevant and worth contemplating:

A psychoanalytic version of his mental instability, constructed from a record of occasional panic attacks, some real anxiety, some periods of melancholy, and—it must be admitted—some biographical sleight of hand, has found itself accepted as the grand narrative of his life. It has been elevated into the popular belief that Schumann was mentally unstable all his life, with bipolar disorder being most likely. Such a belief has, in practice, often been no more firmly grounded than on the observation that he was sometimes cheerful and at other times sad. (pp. 365–366)

In any case, such material should not be accepted without qualification. As psychologist Dean Keith Simonton (1994) explains, “These judgments may come from experienced psychiatrists, yet the evaluations are often based on skimpy information about symptoms . . . many of these diagnoses would not stand up in a court of law” (p. 288).

Simonton is considerably more subtle than art historians Rudolf and Margot Wittkower (1963), who, in their *Born Under Saturn: A History of the Character and the Conduct of Artists*, take aim at “those facile manipulators of historical material [who] can reach a degree of distorted judgment that has few parallels in the works of historians” (p. 292).

Yet, even if an irrefutable case can be made for artistic pathology, its relation to creativity still remains ambiguous. In discussing

² This criterion depends on a close and reliable correspondence between treatment and diagnosis that is not always available. See, for example, the 1994 survey of 500 bipolar individuals that indicated that, “on average, a correct diagnosis of manic depression is made eight years after seeking treatment—and 3.3 doctors later” (Lish et al., 1994, p. 288).

the alleged madness of musicians, including Schumann, psychiatrist William Frosch (1987) puts it this way:

Both major affective disease and compositional ability may occur in the same individual. The real question, however, is the nature of their interaction; whether the disorder is linked to musical ability, facilitates it, interferes with it, is irrelevant, or some combination of these. (p. 317)

To date, this question remains open—not just because those threads are so difficult to untangle, but because, for so many people, “finding” talent and mental illness in the same person is enough to end the quest.

Such a narrow framework tends to trivialize the psychological impact of life traumas and serious medical conditions. In her list of disordered creatives, Jamison (1993) also relegates any of their physical challenges to a footnote summary. Noting that “many if not most of these writers, artists, and composers had other major problems as well, such as medical illnesses, alcoholism or drug addiction,” they still make her list when “their mood symptoms predated their other conditions” (p. 268)—as if such precise chronology were possible during anyone’s lifetime, let alone so long after death. In any case, the difficulty of accessing supportive material makes it impossible to analyze many of *Fire*’s claims without combing through the text page by page, hunting for clues.

Finally, as Andreasen (2005) recently noted, “It is not difficult to create a long list of highly gifted or creative people who suffered from mental illness” (p. 81). This is undeniable, given the ease of diagnosis and the lack of challenges on their behalf. Jamison’s choices loom even larger in the public mind without an equally visible roll of healthy creatives. As I still believe, “there’s no triumph in ‘finding’ so much disturbance when your self-selected sample is padded with it, giving scant or no attention to creatives who manage to be both prolific and stable” (Schlesinger, 2004, pp. 363–364). Whereas such a list might well be longer, it would also be infinitely less popular. Meanwhile, Jamison’s ideas continue to have a profound influence on modern views of creativity and mental illness, as evidenced by the amazon.com references to her work as well as the writings of others who quote, thank, or are blurbled by her: As of June 1, 2008, there were 613 of these.

Some of this celebrity stems from Jamison’s (1995) “coming out” as a bipolar herself, a journey she chronicles in *An Unquiet Mind*. Perhaps her own diagnosis sparked her mission to prove that all geniuses are bipolar: If they are, and Jamison is bipolar, she can take her place in their company. She often expresses nostalgia and pride about the various advantages conferred by her manic periods, which have given her life “indescribable beauty” (Jamison, 2000). The following quote, from the epilogue to *An Unquiet Mind*, keeps turning up on the personal Web sites of people who are trying to come to terms with their own manic depression:

I have often asked myself whether, given the choice, I would choose to have manic-depressive illness . . . strangely enough, I think I would . . . because I honestly believe that as a result of it I have felt more things, more deeply; had more experiences more intensely; loved more, and been more loved . . . but normal or manic, I have run faster, thought faster, and loved faster than most I know. (pp. 217–218)

Judging by the hundreds who have posted comments on Jamison’s work, again at amazon.com, many people find comfort in sharing a diagnosis with a famous psychologist and all the great

talents on her list. For them, and doubtless many others, Jamison has lifted a burden: She has made bipolar disorder into a badge of distinction, rather than something to hide, a public service that earned her the MacArthur Foundation honor (which ironically has always been nicknamed “the genius grant”).

Some would argue that the scientific validity of a claim will always be less important than its capacity to increase self-acceptance and reduce shame, and there is a legitimate humanitarian case to make in this regard. But it must also be said that such emphasis comes at a steep cost—because when information is presented as scientifically based when it is not, and anecdotes and speculation are framed as solid data when they are not, it devalues not only the traditional standards of research but the credibility of the profession itself.

Rumors of Resolution: Arnold Ludwig

Resolving the Creativity and Madness Controversy is the subtitle of Ludwig’s (1995) popular book *The Price of Greatness*, his Herculean attempt to sift the lives of 1,004 famous people for the common seeds of their eminence. Following the path of Lombroso and Ellis, Ludwig spent 10 years laboring over biographies that were reviewed in the *New York Times* between 1960 and 1990. But this is problematic from the gate because all the evidence turns on the personal agendas of these biographers—that is, whom they chose to feature, and in what light—as well as their storyteller’s mandate to organize random events into thematic narratives. Moreover, when aiming for the best-seller list, many writers are likely to emphasize, and even exaggerate, the struggles and afflictions of the people they write about.

Another drawback is Ludwig’s choice to blend artistic creativity with social, athletic, scientific, military, and political eminence. Although the capacity to make innovative and lasting contributions is certainly a valid definition of creativity, it seems strange to fold labor leader Samuel Gompers and politician Winston Churchill into the mix with explorer Amelia Earhart and weigh their psychology together with that of magician Harry Houdini and singer Marvin Gaye.

But regardless of any conceptual challenges, the sheer bulk of Ludwig’s data is impressive. It is also likely that, in the 55 pages of charts and tables he gathers under the heading of “Methods and Statistics,” few readers will notice the vagueness of variables like “marked esthetic interests in family members” (p. 253), “anger at mother” (p. 268), and “oddness” (p. 260)—or wonder how such amorphous factors were assessed for each one of the eminent 1,004. The “where” of it is also mysterious because like *Fire*, *Price* contains no bibliography or page references to assist in finding such information.

The text is also paved with some curious switchbacks. For example, very early on, Ludwig states that musical entertainers are “relatively free from depression,” but just two sentences later, also claims that they are “more likely to attempt suicide” (p. 5). When discussing the impact of early parental loss, he evokes the “Phaethon complex,” which manages to feature both “recklessness in seeking love and attention” as well as “isolation and reserve” (p. 35). Ludwig also writes that his findings “show a strong familial contribution to the extent and nature of emotional problems encountered by these eminent people,” but then quickly retreats, admitting that “the predictive relationships are all very weak” (p.

157). Even more puzzling is his early concession that “anecdotal accounts of emotional difficulties in famous people prove nothing” (p. 3), even though he builds his entire book around such accounts.

Similarly, how does one reconcile Ludwig’s admission that his findings are “limited and inconclusive” (p. 3) with his promise that, as a result of reading this book, “much of the mystery about the relationship between mental illness and creativity disappears” (p. 4)? But the most curious thing is that he actually debunks the mad creative notion when he writes that “mental illness does not seem necessary for exceptional achievement” (p. 157) and “although intriguing, speculations of this sort are justified only if it has been established that mental illness is common among the eminent. To date, this has yet to be established” (p. 128).

At this point, yet another question floats into view: Why is *Price* cited as providing solid evidence for creative madness? One possibility is that many busy people never get past the breaking news implicit in its titles. Certainly the term *price of greatness* triggers the assumption that exceptional creativity comes with a parallel cost, and *resolving the creativity and madness controversy* strongly suggests that the jury is in and sentence has been pronounced. Then there is that intimidating collection of charts and graphs, the persuasive number of lives that were scrutinized, and the decade of hard work it took to do it all. But although *Price* does offer a thought-provoking collection of factors that might be related to creativity, as well as many enjoyable anecdotes, the truth is that this book is perpetuating, rather than resolving, the controversy.

Opportunity Lost

To date, despite the earnest efforts of Andreasen, Jamison, Ludwig, and others, the most basic assumption of this whole enterprise remains in the air: There is still no clear, convincing, scientific proof that artists do, in fact, suffer more psychological problems than any other vocational group—and probably little chance of obtaining any. So far, neither the National Institute of Mental Health nor the National Depressive and Manic-Depressive Association keeps statistics on the rate of mental illness by occupation. Meanwhile, the biased focus on those creatives with troubled lives will never confirm their unique vulnerability, even if their troubles had unimpeachable documentation.

In 1999, the National Institute of Mental Health might have done it, when it launched its Systematic Treatment Enhancement Program for Bipolar Disorder (STEP-BD) study, a \$22 million, nationwide, longitudinal effort to find the most effective treatments for bipolar disorder (“\$22 million,” 2001). Completed in 2005, STEP-BD ultimately involved 19 research sites and an unprecedented pool of 4,361 bipolar participants. The largest study of its kind ever conducted, it was the perfect opportunity to finally answer the ancient question about creative madness—except that nobody asked it.

For example, all participants were required to complete a lengthy demographic form, and although it was exhaustively detailed about type of residence, education, work history, and sources of financial support, there was no occupational category for “artist”—no way to identify oneself, say, as musician, writer, painter, poet, dancer, or filmmaker; the closest designation was the group of “craftsmen and kindred workers,” which included “baker.” The questions were clearly meant for people in “regular”

jobs, who can more easily compute their average working hours and salaries for each week. There was also a sharp distinction between “work” and “nonwork” activities (or “paid” and “unpaid”), a dichotomy that fails to capture the rhythms of a committed freelance creative life, where there is so much private, unpaid time devoted to exploration and practice. Although such activities are essential to the progress of creatives’ skills and the development of whatever products they hope to sell, STEP-BD did not view this as “work.” As a result, all those creatives who joined the study because they had likely diagnoses of bipolar disorder would have fallen into its catchall “other” category, instead of being compared directly and explicitly with other occupational groups.

I called Dr. Gary Sachs at Massachusetts General Hospital, the principal coordinator of the study, to ask whether there had been a specific choice not to focus on the creative madness hypothesis. “It didn’t come up at all,” he told me, explaining that, given the study’s “mundane” emphasis on public health and its pragmatic concerns of economics and treatment, “it was not set up to look at such lofty things.” And although there was no “conscious decision” to exclude creatives from the job categories, neither was there “a burning desire” to include them; in effect, the issue was simply irrelevant (G. Sachs, personal communication, July 24, 2001). This is entirely reasonable, given the strict parameters of STEP-BD’s mandate, but it still seems a shame not to have included an extra question or two that might have helped settle the matter.

In parting, Dr. Sachs referred me to Jamison’s work, as if the answers were there.³ So as of this writing, there are no large-scale population statistics to claim, with the assurance borne of real mathematical power, that any one occupation is more vulnerable to affective disorder than any other—and little hope that there ever will be.

Summary and Conclusions

In this article, I have focused on the most influential evidence for the creativity and madness link, hoping to encourage a more realistic appraisal of its validity; I have also identified some research sandtraps that would undermine anyone’s quest for empirical certainty in this area. One of the deepest is the lack of consistent, consensual definitions and measures of the major variables; at times, all the myriad attempts to describe creativity seem like the blind men exploring the elephant, where each one claims that the piece he holds is the true essence of the beast. There are also many thoughtful professionals who question the concept of mental “illness” itself because it fails to meet the three basic criteria for a discrete medical entity: specific diseased tissue that can be reliably identified, dependable chemical tests, and reasonably accurate and consistent prognoses. In any event, the concept of affective disorder has been so thoroughly elasticized that it captures virtually anyone who’s ever had a mood at all; it is

³ It turns out that a major finding of the STEP-BD study was that we still lack the tools and treatments to prevent 90% of bipolars from suffering a recurrence (Perlis et al., 2006, p. 222). Part of the problem may lie at the beginning, with the concept and definition of bipolar disorder itself. But that is a subject for another article. Meanwhile, readers who are interested in the flurry of important publications generated by the study are directed to stepbd.org.

instructive that between 1996 and 2004, the rates of bipolar diagnoses increased 56% among adults, 296.4% among adolescents, and 438.6% among children (Blader & Carlson, 2007).

It is also impossible to build a sturdy scientific foundation on small, specialized samples, weak and inconsistent methodologies, and a lopsided dependence on subjective and anecdotal sources. The common use of self-selected volunteers is also problematic given that anyone who volunteers for a mood disorders or creativity study may well have personal concerns and experience in that area.

Moreover, it is not difficult to imagine how such participants, probably alone with a sympathetic and attentive professional, will be drawn out by compassionate reactions and subtle reinforcement of their most confirmatory statements. Aside from the natural impulse to “do well” in an interview (i.e., to please the interviewer), it may be enjoyable to expand on the creative process and give it a colorful spin. Such unconscious and uncontrollable elements can easily skew the outcome of a study.

The use of self-report adds its own subjective footprints because it evokes that time-honored conundrum of whether people report what they really feel, think, and do, or what they assume they are supposed to feel and think and do. In addition, the true rate of pathology will be inflated by those creatives who covet the prestigious mantle of the troubled genius and exaggerate their struggles accordingly. There are also those who deliberately emphasize their exceptional talents, whether alleged or actual, to justify simple moodiness, impetuosity, and self-indulgence, something the ubercreative Steve Allen called “the Bohemian excuse” (S. Allen, personal communication, September 20, 1998). Still others may behave in stereotypical “mad genius” ways just to maintain a semblance of consistent identity in a life full of occupational stops and starts, as in, “I may not be producing anything right at the moment, but I’m still a wacky genius—just watch me!” The pose of eccentricity may also provide a certain amount of protection from the world and its demands. In *The Mad Genius Controversy*, sociologist George Becker (1978) notes that: “The aura of madness served the function of differentiating genius from the mean, the mediocre, or the bourgeois . . . the man of genius could claim some of the powers and privileges granted the ‘fool’ [and] the ‘possessed’ prophet” (pp. 57–58). Finally, there are those classic memory problems: When asked about past events, not only do people tend to reconstruct what they have forgotten, but parts of it will become more important than they actually were as a result of the interviewer’s questions. All of this springs into play whenever creatives are asked to describe their behavior and mood during previous acts of creation.

But even with the most dispassionate and accurate information, no diagnosis is ever completely objective. No matter how carefully the relevant behavioral criteria are described, so long as their measurement remains qualitative, any label will finally hinge on the perception of individual clinicians, which is invariably informed, in turn, by their personal philosophy and agenda. As a result, it is a safe bet that any researcher who is determined to find evidence of mood disorder in any artist, dead or alive, is very likely to succeed.

Another problem is the dependence on unrealistic or outdated views of creativity, including the lopsided focus on inspiration as if that were the defining creative moment. Also, too many people draw artists as if they lived in a bubble, influenced by little more

than their own peculiar constitutions and an occasional splash from the family gene pool. Until relatively recently, insufficient attention was paid to the intricate matrix of such environmental influences as training, opportunity, stress, encouragement, colleagues, and icons—or even the powerful impact on artistic mood of how well the work is going at any given moment.

Finally, even quantitative results can provide false assurance if two basic research principles are unknown or overlooked: (a) that correlation does not mean causality, and (b) that the actual connection between two variables lies in the variance, not the correlation coefficient. Many people are impressed by a correlation of .4 because they are unaware (or forgot) that this number must be squared to get the true percentage of overlap—which in this case is not 40% but only 16%. It would also help if the public understood that although they use the word *significant* as a synonym for *important*, an experimental result that is *statistically significant* may not be important at all; it might not even be particularly meaningful. As Hans Eysenck (1995) wrote in *Genius: The Natural History of Creativity*, “Of course science often leaves the straight and narrow path of righteousness; frequently psychologists in particular use statistics as a drunken man uses a lamp-post—for support rather than illumination” (p. 5).

Such misunderstandings help perpetuate the mad genius idea, but the romance, the *schadenfreude*, the comfort, and the alibi of it are all too enjoyable to let anything shatter the myth, including science.

And because madness sells, the media will continue to hammer its connection to creativity; once you tune your ear to it, you can hear how frequently this particular song is sung. And so the bottom line is that society may well be stuck with the idea forever, regardless of what any researchers do, or don’t do.

Into the Sunlight?

The good news is that, at least in the field of psychology, creativity seems to be emerging from the shadows. In his seminal work on genius (*Origins of Genius*), Simonton (1999) lists both Jamison’s 1989 study and *Touched With Fire* as references, but mentions neither one in the text (index, pp. 297–308). *Fire* gets just two brief citations in *Creativity: From Potential to Realization* (Sternberg, Grigorenko, & Singer, 2004); Andreasen gets one, but not to her “landmark” study, and Ludwig’s *Price of Greatness* is only saluted in passing. There is no sign of the trio at all in *Conceptions of Giftedness* (Sternberg & Davidson, 2005), another edited volume that could easily have reprinted earlier work or included a revisit.

This may reflect the impact of the positive psychology movement: Perhaps the increasing emphasis on such life-affirming variables as optimism, resilience, and creative “flow” (Csikszentmihalyi, 1996, 1997) is finally pushing the mad genius off the stage. The concept of “everyday” creativity underscores the nonpathological view of its mechanism (Runco & Richards, 1998), while the growing recognition of environmental influences on creativity continues to erode the rigid focus on internal determinants (Amabile, 1996). Then there is the plain economic fact that, once managed care began to decimate independent practice, psychologists began finding more opportunities in the business world; wherever “thinking outside the box” is highly valued, it inspires a different kind of research, writing, and

consultation. There may even be a belated recognition of the inadequacy of prior research in this area, judging by recent calls for new qualitative tools and standards to produce stronger and more reliable results.

At the same time, the “mad genius” idea is embedded so deeply in our collective imagination that it hardly matters whether it stands on science or not. But at least psychologists should remember its wobbly foundation before passing it along as fact.

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