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Article

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Abstract
The concept of bipolar disorder has undergone a transformation over the last two decades. Once considered a rare and serious mental disorder, bipolar disorder is being diagnosed with increasing frequency in Europe and North America, and is suggested to replace many other diagnoses. The current article shows how the modern concept of bipolar disorder has been created in the course of efforts to market new antipsychotics and other drugs for bipolar disorder, to enable these drugs to migrate out of the arena of serious mental disorder and into the more profitable realm of everyday emotional problems. A new and flexible notion of the condition has been created that bears little resemblance to the classical condition, and that can easily be applied to ordinary variations in temperament. The assertion that bipolar disorder is a brain disease arising from a biochemical imbalance helps justify this expansion by portraying drug treatment as targeted and specific, and by diverting attention from the adverse effects and mind-altering properties of the drugs themselves. Childhood behavioural problems have also been metamorphosed into "paediatric bipolar disorder," under the leadership of academic psychiatry, with the assistance of drug company financing. The expansion of bipolar disorder, like depression before it, medicalises personal and social difficulties, and profoundly affects the way people in Western nations conceive of what it means to be human.

Keywords
antipsychotic medication, bipolar disorder, marketing, medicalisation, pharmaceutical industry, psychopharmacology

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Over the last decade or so, bipolar disorder, once considered a rare and devastating condition, has become one of the most widely diagnosed mental disorders. No longer denoting a severe and distinctive form of disturbance usually requiring specialist care, and often compulsory hospitalisation, the bipolar label is now applied to a whole gamut of human problems. General practitioners, family doctors, and patients themselves are increasingly making the diagnosis and seeking and initiating treatment.

This transformation of bipolar disorder has gone hand in hand with the increasing popularity of drugs used to treat the condition, first the antiepileptic drugs referred to "mood stabilisers," and more latterly the atypical antipsychotics. Antipsychotic drugs, once reserved principally for those with disabling long-term conditions like "schizophrenia," have become some of the best selling drugs of the 21st century, rivalling statins, and overtaking antidepressants in terms of revenue (Ilyas & Moncrieff, 2012; IMS Institute for Healthcare Informatics, 2011). Antipsychotic drugs are being prescribed with increasing frequency to both adults and children (Olfson, Blanco, Liu, Moreno, & Laje, 2006), and data from the United States suggest that the single disorder for which the new "atypical" antipsychotics are most commonly prescribed in adults is bipolar disorder (Alexander, Gallagher, Mascola, Moloney, & Stafford, 2011).

This article describes how a new concept of bipolar disorder was fashioned in order to establish a broad market for drugs like the atypical antipsychotics. It shows how a serious psychiatric condition was mutated into something so vague and inclusive that the label can be attached to a whole myriad of common personal difficulties, which thereby become legitimate targets for drug treatment. The new bipolar disorder is a product of social forces, and, like depression before it, has the power to transform cultural perceptions of the nature of human emotions and how we should respond to them. In this way, the new concept has the potential to shape the way people understand themselves and their behaviour.

The new bipolar disorder

An article in the British publication *The Psychiatrist* entitled "I want to be bipolar" describes the relatively recent trend of people actively seeking to be diagnosed with "bipolar disorder" (Chan & Sireling, 2010). This phenomenon is well illustrated by the story of journalist Patrick Strudwick, which was published in *The Times* newspaper in 2012. After the breakdown of a difficult relationship in 2003, Strudwick threw himself into his work and found he had periods of feeling unusually energised. He researched his situation on the Internet and decided he had bipolar disorder. Although a friend advised him he most probably did not have the condition, he described how he convinced himself and his doctor that he did: "I want a label for how I'm feeling and drugs to make it stop." He recalled "I read reams about bipolar disorder. Every sensation of the past few months morphs into these descriptions of symptoms. I ignore the ones I don't have" (Strudwick, 2012).

When he saw his general practitioner, he described "only the apex of the hyper moods, the edited highlights. The more complicated reality—that these episodes undulate, subside and sometimes last only an hour or two—I do not describe in case he doesn't take me seriously." Strudwick's general practitioner referred him to a psychiatrist who assigned the diagnosis of bipolar disorder and he was started on a drug called Depakote (divalproex sodium). Strudwick took this for several years until another psychiatrist questioned the diagnosis, and eventually he started to doubt it himself. Finally tiring of the sedating effects of the drug, he weaned himself off. When he confessed to this episode some years later, two of his friends described how they too had been labelled as having "bipolar disorder" in the same sort of circumstances (Strudwick, 2012).

The condition that was originally called "manic depression" is a rare disorder in which the sufferer experiences episodes of "mania," characterised by hyper-arousal and overactivity that occur over a sustained period lasting weeks at least, and frequently many months. It is easily recognisable because the individual's behaviour is completely out of character, and often out of control, and it usually leads to admission to a psychiatric unit, often on a compulsory basis. Most inpatient facilities in the United Kingdom see only a handful of such cases a year (M. Harris, Chandran, Chakraborty, & Healy, 2005).

Current information on bipolar disorder suggests it consists of "unusual shifts in mood, energy, activity levels and ability to carry out daily tasks," however, or simply of "unusually intense emotional states" (National Institute of Mental Health, 2013). Although the Royal College of Psychiatrists' information leaflet specifies that manic episodes last for weeks or more commonly months (Royal College of Psychiatrists, 2013), much literature suggests that symptoms can last for shorter periods. The *Diagnostic and Statistical Manual* (DSM) Version 5 criteria specify only that a manic episode should last at least a week, and a lesser, "hypomanic" episode for 4 days, but the manual also contains a residual diagnosis of "bipolar disorder not otherwise specified," which requires no minimum duration of manic or hypomanic episodes (American Psychiatric Association, 2013). Information produced by the National Alliance on Mental Illness (NAMI) also suggests that mood episodes might last between "one day and months" (National Alliance on Mental Illness, 2013).

Internet-based tests for bipolar disorder that have sprung up over the last few years often translate the episodic nature of typical manic depression into the idea that bipolar disorder consists of an enduring propensity to experience contrasting moods, loss of control, and behavioural fluctuations. Thus one such "quiz" asks participants whether their self-confidence ranges from "great self-doubt to equally great overconfidence," whether sometimes they become "very angry and hostile" for no apparent reason, whether they get into moods when they feel "very 'speeded up' and irritable," whether there are "great variations" in the "quantity and quality" of work, and whether they have "periods of dullness and other periods of creative thinking" (Goldberg, 2013).

Items on tests such as these describe variations that are near universal. As with personality quizzes in magazines, qualifying for a diagnosis of bipolar disorder is

judged on a sliding scale according to how often or how severe each experience is rated to be on a scale between, for example, 0 and 6. An arbitrary figure is proposed to represent a score above which the participant is likely to have bipolar disorder and they are given a message such as "you appear to be suffering from a bipolar disorder" (Goldberg, 2013). Lower scores also generate advice that participants may suffer from "mild bipolar disorder" and should seek medical advice.

Mood diaries are another technique whereby ordinary mood variation is transformed into a subject of concern. The diaries, available on many Internet sites, require people to rate their moods on a daily and sometimes hourly basis. Once translated into numerical and visual form, normal fluctuations in mood can appear unusual and worrying, and can easily be construed as incipient bipolar disorder (Healy & Le Noury, 2007). There is also a tendency to "eliminate any space for the 'normal,'" as anthropologist Emily Martin observes (Martin, 2009).

Thus modern-day bipolar disorder is portrayed as on a continuum with ordinary character traits and everyday variability of mood and functioning, a situation that is quite different from the prolonged states of overarousal and usually deep depressions that constitute classical manic depression. As Patrick Strudwick noted when he attended the local bipolar support group: "The others in the group share stories of kaleidoscopic hallucinations, distinctly inappropriate public nudity and policemen fishing them out of reservoirs. My stories do not compare" (Strudwick, 2012). The new concept of bipolar disorder can therefore be used to replace other diagnoses such as depression or personality disorder (Chan & Sireling, 2010), but since everyone has periods of increased energy, elevated mood, or irritability from time to time, albeit some more than others, almost anyone can come to conceive of their difficulties as fitting with the profile of bipolar disorder now being provided. Anyone can be bipolar if they so choose.

Expanding the boundaries of bipolar

The concept of bipolar disorder was first extended in the 1970s with the introduction of the concept of "bipolar II" disorder. This was said to be characterised principally by episodes of depression accompanied by occasional minor episodes of mania. However, the concept was not widely accepted outside the United States, and was not featured as a major diagnosis in the 10th edition of the International Classification of Disease, for example (World Health Organisation, 1990). Moreover, its relationship to classical bipolar disorder was not established. In the 1990s, a small group of academics, led by Professor Hagop Akiskal of the University of California, San Diego, formulated the concept of the "bipolar spectrum." This was said to consist of a lifelong tendency for moodiness, or "temperamental dysregulation" (Akiskal, 1996) and was proposed to be the basis of many cases currently classified as depression, anxiety, eating disorders, addictions, and personality disorder, as well as applying to some people without a current diagnosis (Perugi & Akiskal, 2002). Although many psychiatrists are sceptical of the increasingly flexible bipolar umbrella, accusing its proponents of "bipolar imperialism"

(Paris, 2009), the sheer volume of papers Akiskal and his collaborators have published, many in the *Journal of Affective Disorders* of which he is Editor-in-Chief, conveys the impression that the concept is well accepted. Akiskal has incidentally declared payments from makers of most drugs now recommended for bipolar disorder (Parker et al., 2010).

The reported prevalence of bipolar disorder increased in line with changing definitions. Although classical manic depression was commonly said to affect about 1% of the population, research suggests that less than one in a thousand people were hospitalised for a typical episode of mania during the 20th century (Healy, 2008). By 1998, however, it was claimed that the prevalence of classical bipolar disorder with full-blown mania was 5%, with an additional 11% of the population suffering from bipolar II (Angst, 1998). By 2003, a total of 24% of the general population were thought to show some form of disturbance on the "bipolar spectrum," based on a study using broad criteria for hypomania without any minimum duration (Angst et al., 2003). Epidemiological research of this sort thus confirms the notion that bipolar disorder is common by using loose and inclusive definitions of abnormal mood.

Marketing bipolar disorder

David Healy has pointed out how academic and popular interest in bipolar disorder coincided with the launch of new drugs for the disorder in the 1990s, and with the formulation of the concept of a "mood stabiliser" (Healy, 2006, 2008). The idea that bipolar disorder might be analogous to epilepsy was first proposed in the 1970s, and antiepileptic drugs had been used in its treatment since that time. In the 1990s, drugs used for bipolar disorder started to be referred to as "mood stabilisers" although the precise meaning of this term was never clear, and psychiatrists could not agree on it (Bowden, 1998; Ghaemi, 2001). Many people came to believe, however, that drugs referred to as "mood stabilisers" rectified something awry in the biological basis of emotional regulation. Use of antiepileptic medications for people with mood disorders increased from the 1990s (van Voris & Lawrence, 2010) and pharmaceutical companies started to run trials of atypical antipsychotics in people with bipolar disorder. In 2000, Eli Lilly obtained a licence for the use of its antipsychotic olanzapine (Zyprexa) in people with acute mania, and in 2004 a licence was granted for use of olanzapine for long-term treatment.

This licence, although it only applied to people with bipolar I disorder, since olanzapine had only been tested in people with this diagnosis, enabled Eli Lilly to legitimately market its drug to people with the bipolar label. Since this label was increasingly widely applied, marketing could be aimed at a broad section of the population. Confidential documents that were released in the course of legal proceedings make it clear that Lilly saw Zyprexa as the natural successor to Prozac (fluoxetine), and the company set about devising a strategy to make Zyprexa into the "most successful pharmaceutical product ever" (Eli Lilly, 2001, cited in Spielmans, 2009). This strategy hinged on repositioning Zyprexa as a treatment

for mood disorders that could be marketed to the millions of people who currently thought of themselves as depressed, and could be prescribed not just by psychiatrists but by general practitioners or primary care physicians. In 1997, for example, the Zyprexa product team predicted that sales projections would increase more than fourfold if olanzapine could be viewed as a "Depakote like... MOOD STABILISER" rather than a "Risperdal like... Antipsychotic" (Tollefson, 1997, cited in Spielmans & Parry, 2010).

The repositioning of Zyprexa as a "mood stabiliser" was achieved through a disease awareness campaign, similar in nature to previous campaigns that had publicised other vague and expandable mental conditions during the 1990s, such as "social anxiety disorder" (Koerner, 2002). In 2002, Eli Lilly ran an advertisement on United States television which featured a woman shown dancing and shopping, interspersed with pictures of her looking glum and depressed. The advertisement suggested that "depression is only half the story" and that people who were not getting better from depression might have undiagnosed bipolar disorder (Healy, 2008, p. 190). The advertisement encouraged people to log onto the website of the "Bipolar Help Centre," sponsored by Eli Lilly, and to take a "bipolar test" which they could then show their doctor in order to obtain a "correct diagnosis."

Material designed for general practitioners also aimed to change perceptions about people who might previously have been diagnosed with depression. Lilly formulated the concept of "complicated mood," which was similar to the idea of the "bipolar spectrum," to bridge the gap between the serious mental conditions which were normally associated with the use of antipsychotics, and the sort of mental distress that general practitioners saw on an everyday basis (Spielmans, 2009). "Complicated mood" was said to consist of common symptoms like irritability, anxiety, disturbed sleep, and mood swings, which were suggested to be amenable to Zyprexa. Sales representatives were instructed to emphasise the broad action of olanzapine, and to encourage general practitioners to identify and prescribe to "higher functioning" people at "the low to middle end" of bipolar severity (Porat, 2002, cited in Spielmans, 2009).

The media also helped to publicise the message that bipolar disorder was common and frequently unrecognised, as well as constructing a glamorous image, helped by longstanding beliefs about the association between manic depression and creativity. Indeed, manic behaviour is often lauded as effective and productive and associated with success (Martin, 2009). In 2006, the British Broadcasting Corporation (BBC) screened a two-part documentary narrated by Stephen Fry, in which the comedian owned up to having been diagnosed with bipolar disorder. Fry interviewed a number of celebrities also said to have the condition, and Fry and his interviewees reflected on the excitement and drama of the condition (Wilson and Douglas, 2006). Fry claimed that four million people in the United Kingdom have the disorder: fully 8% of the adult population. The programme repeatedly emphasised the importance of early detection, claiming that the condition was often unrecognised. Fry appeared to see his

mission as destigmatising the condition so that more people would be willing to identify themselves or those around them as "being bipolar" (Wilson and Douglas, 2006).

Bipolar disorder as brain disease

Although criteria and tests increasingly reflect enduring features of temperament and character, the new bipolar disorder is nevertheless asserted to consist of a brain disease or disorder that can be specifically targeted and rectified with treatment (National Institute of Mental Health, 2013). Stephen Fry referred to the condition as a "serious disease of the brain," for example (Wilson and Douglas, 2006). Public information produced by drug companies repeatedly emphasises the idea that the disorder is caused by "chemical imbalances in the brain" (AstraZeneca, 2012) that can be rectified with drugs. In 2011, the website for Geodon (an atypical antipsychotic made by Pfizer) stated that "current medicines are designed to help correct these imbalances," and was accompanied by a picture of a young woman sitting cross-legged, with her hands carefully positioned on her knees, in a perfectly symmetrical and "balanced" position (Pfizer, 2011). Professional and patient organisations promote the same message. The Manic Depression Fellowship, now renamed the Bipolar Organisation, describes on its website how antipsychotics work by altering the "balance of a brain chemical called dopamine which is known to be abnormal in mania and psychosis" (Bipolar UK, 2012). The UK's "NHS Choices" website describes how bipolar disorder is "widely believed to be the result of chemical imbalances in the brain" (NHS Choices, 2013).

The idea that any type of drug acts by rectifying the presumed chemical or neurophysiological basis of a mental disease has not been proven (Moncrieff, 2008). There is no convincing evidence that there are dopamine or any other biochemical imbalances in bipolar disorder, or that the drugs used to treat the condition work by reversing these. All the drugs currently used to treat bipolar disorder, including lithium, anticonvulsants like divalproex sodium, and atypical antipsychotics exert strongly sedative effects, which are likely, in themselves, to subdue and reduce the manifestations of acute mania, without the need to invoke hypotheses about underlying pathology.

Long-term benefits have proved more difficult to demonstrate, however, and most studies are confounded by the fact that withdrawal of some of these drugs appears to increase the risk of relapse above what it would have been without treatment (Baldessarini, Tondo, & Viguera, 1999; Suppes, Baldessarini, Faedda, & Tohen, 1991). The placebo controlled study of olanzapine maintenance therapy, for example, found that the majority of relapses among placebo-treated patients occurred within 3 months of the substitution of olanzapine with placebo (Tohen et al., 2006). Moreover, relapse rates among drug-treated patients in trials like this are not superior to relapse rates recorded prior to the 1950s and the introduction of modern drug treatments (Moncrieff, 2008). In fact, people treated with olanzapine in the Lilly study, who relapsed by 1 year on average, compare unfavourably to

pre-1950s cohorts whose mean time to relapse was 2 to 3 years (M. Harris et al., 2005; Winokur, 1975). Although a partial explanation may lie in the loose definitions of relapse employed in modern clinical trials, the evidence provides little reassurance that long-term drug treatment is better than no treatment at all.

There is moreover no evidence that any of the drugs used to treat bipolar disorder improve problems related to temperamental or emotional variability. Although lithium and antipsychotics have been shown to produce emotional blunting or dysphoria in volunteers and patients alike, studies of lithium have found no evidence that it reduces or stabilises mood variation in volunteers (Barton et al., 1993; Calil, Zwicker, & Klepacz, 1990) and there are no equivalent studies of other drugs used in bipolar disorder.

The idea that drug treatment reverses an underlying chemical imbalance displaces attention from the mental and physical alterations the drugs produce, and this may explain why the idea has been so widely promoted by the pharmaceutical industry. Antipsychotics and anticonvulsants have profound psychoactive or mind-altering effects including cognitive impairment, emotional numbing, and sexual dysfunction (Moncrieff, Cohen, & Mason, 2009), and they are associated with a range of serious physical effects including weight gain, impotence, cardiac toxicity, tardive dyskinesia, and brain shrinkage (Ho, Andreasen, Ziebell, Pierson, & Magnotta, 2011). The idea, as Lilly puts it on its Zyprexa website, that the drugs work by "correcting the chemicals found *naturally* [emphasis added] in the brain" (Eli Lilly, 2011) helps to create the impression that the drugs are innocuous and only help to restore some hypothetical state of biochemical harmony, without causing any unwanted physiological alterations.

Paediatric bipolar disorder

Although it is the adult market that accounts for the bulk of sales of atypical antipsychotics, it is the use of these drugs in children, alongside the emergence of the diagnosis of paediatric bipolar disorder that best illustrates the way in which a severe mental disorder can be morphed into a label for common or garden-variety difficulties, as well as the role that money plays in this process. In the 1990s, a group led by child psychiatrist Joseph Biederman, who was based at Massachusetts General Hospital and Harvard Medical School, started to suggest that children could manifest "mania" or bipolar disorder, but that it was frequently missed because it was often coexistent with other childhood problems like ADHD and "antisocial" behaviour (Faraone, Biederman, Mennin, & Russell, 1998). In a paper published in 1996, the group suggested that 21% of children attending their clinics with ADHD also exhibited "mania," which was diagnosed on the basis of symptoms such as overactivity, irritability, and sleep difficulties (Biederman et al., 1996). A year later, the group was referring to bipolar disorder in children as if it were a regular, undisputed condition, and emphasised the need for "an aggressive medication regime" for children with the diagnosis (Bostic, Wilens, Spencer, & Biederman, 1997, p. 1487). Popular books also started to appear suggesting a

variety of common behaviour problems including temper tantrums, irritability, and poor sleep were manifestations of childhood bipolar disorder (Healy & Le Noury, 2007). Just as Internet sites help coach adults on how to describe their difficulties in ways which are consistent with a bipolar diagnosis, these books have enabled parents to reinterpret their children's behaviour in medical terms, and to present it to professionals in a way that begs a bipolar diagnosis (Groopman, 2007).

The American media also initially encouraged the tendency of increasing diagnosis of bipolar disorder among children. In an article entitled "Young and Bipolar," *Time* magazine reported on how manic depression or bipolar disorder was not as rare as previously thought and that "Doctors … are coming to the unsettling conclusion that large numbers of teens and children are suffering from it as well" (Kluger & Song, 2002). The article stressed the need for prompt diagnosis and treatment and worried that without it "plenty of kids are suffering needlessly."

As David Healy and Joanna Le Noury have pointed out, prior to the turn of the last century, true bipolar disorder or manic depression was thought to be vanishingly rare in children. Like the bipolar spectrum, however, the more paediatric bipolar disorder was written and spoken about, the more it appeared to be a legitimate condition (Healy, 2008). In 2003 a group of academics formulated official "treatment guidelines" which were published in the leading *American Journal of Child Psychiatry*. Like Biederman's group, the authors of the guidelines stressed the importance of "early diagnosis and aggressive treatment" (Kowatch et al., 2005, p. 214). They acknowledged that children with bipolar disorder did not meet official diagnostic criteria because they did not have clearly defined episodes and their "symptoms" were not prolonged and severe. As with bipolar spectrum, children with paediatric bipolar disorder were said to suffer from "frequent and daily mood swings" characterised by "intense mood lability and irritability" on an ongoing basis, rather than the sustained mood states characteristic of classical bipolar (Kowatch et al., 2005, p. 214). Nevertheless, the authors recommended treatment with antipsychotics, lithium and other "mood stabilisers" and regimes involving combinations of two or more drugs were suggested in the frequent cases where a single drug produced only a "partial" response. Moreover, additional medication was said to be required for the frequently concurrent disorders like attention deficit disorder and anxiety.

The guidelines were the product of a 2-day meeting held under the auspices of the Child and Adolescent Bipolar Foundation, which was sponsored by Abbott laboratories, AstraZeneca, Eli Lilly, Forest Pharmaceuticals, Janssen, Novartis, and Pfizer. In the same year the guidelines were published, several companies sponsored a symposium at the American Psychiatric Association's annual meeting in San Francisco on "juvenile bipolar disorder" which featured four talks by Biederman's group (Healy, 2008). By this time, the group had started to run trials of various antipsychotics for the treatment of bipolar disorder in children, sponsored by the manufacturers of the drugs involved. By 2012, risperidone, olanzapine, aripiprazole, and ziprasidone had been investigated, mostly in small-scale studies that were not conducted double blind. Unsurprisingly given their sedative

properties, the drugs were said to have beneficial effects on symptoms of "mania," and the researchers concluded that larger double-blind studies were justified. One of these studies was aimed at preschool children aged between 4 and 6 (Biederman et al., 2005) and children were recruited to these trials through advertisements that told parents that challenging behaviour and aggression in young children might stem from bipolar disorder (Healy, 2008). The trials revealed high rates of adverse effects, including substantial weight gain, especially with olanzapine, but this did not deter the group from running further trials.

These trials were run from the Johnson and Johnson Centre for Paediatric Psychopathology Research, which was set up with money from Janssen pharmaceuticals, the makers of risperidone, at the request of Joseph Biederman. Confidential papers released during court action taken by parents alleging their children had been damaged by exposure to antipsychotic drugs, revealed the centre's objectives included, not surprisingly, that it should "move forward the commercial goals of J&J [Johnson and Johnson]" (G. Harris, 2008; G. Harris & Carey, 2008). It was hoped the activities of the centre would lead to "safer, more appropriate and *more widespread* [emphasis added] use of medications in children" and that without the data the centre could produce, "many clinicians question the wisdom of aggressively treating children with medications, especially those like neuroleptics, which expose children to potentially serious adverse events." An email message from a Johnson & Johnson executive stated that the rationale of the centre was to "generate and disseminate data supporting the use of risperidone" in children and adolescents (G. Harris, 2008).

In 2008, an investigation by the Republican Senator Charles Grassley revealed that Biederman and some of his colleagues had failed to declare millions of dollars of personal income they had received in consultancy fees from drug companies. When pressed by Senator Grassley, Biederman belatedly admitted to receiving $1.6 million from drug companies between 2000 and 2007, and his Harvard colleagues, psychiatrists Timothey Wilens and Thomas Spencer, admitted to receiving $1.6 and $1million respectively. Even these figures may be an underestimate, however, since information provided to Senator Grassley by the drug companies indicated even higher payments (G. Harris & Carey, 2008). The fact that the researchers had failed to declare the extent of their income violated the conditions of the substantial federal funds they had received to conduct research and their programme was temporarily suspended.

Before the scandal erupted, the head of psychiatry at Harvard assured reporters that Biederman would not be influenced by drug companies: "For Joe, it is his ideas and mission that drive him, not the fees" (Allen, 2007). This was before the extent of these "fees" became public, but even afterwards, it seems that Harvard did not see the incident as meriting serious punishment. The only sanctions levied against the three offenders were that they had to refrain from conducting company-sponsored research for 1 year, and subsequently submit proposals to conduct such research for approval for a further 2 years (Yu, 2011).

In 2006, 4-year-old Rebecca Riley was found dead on her parents' bedroom floor in Hull, Massachusetts. She had been diagnosed with paediatric bipolar disorder, among other psychological conditions, and prescribed a cocktail of psychotropic medication including the antipsychotic drug quetiapine, divalproex sodium, and another sedative drug, clonidine. Her parents admitted to giving her extra doses of clonidine in addition to an over-the-counter cold remedy on the night she died, and in 2010, both parents were convicted of Rebecca's murder by "intentional overdose," and received long prison sentences. Rebecca's psychiatrist, Kayoko Kifuji was defended by her employer, Tufts Medical Centre, for practising appropriately and "within responsible professional standards" (Carey, 2007). The judge at the trial of Rebecca's father disagreed: "If what Dr Kifuji did in this case is the acceptable standard of care for children in Massachusetts" he concluded, "then there is something very wrong in this State" (Wen, 2010).

Rebecca Riley's death was widely reported, alongside increasing professional criticism of the trend to label children as bipolar (Paris, 2012). Nevertheless, Biederman and his colleagues continue to publish numerous papers on so called paediatric bipolar disorder, including a major meta-analysis of drug treatments for the condition in which it was declared that "pediatric bipolar disorder is a chronic, severe, and often disabling psychiatric condition" (Liu et al., 2011, p. 749), with no reference to any criticism of the concept. In 2012 the group published a study of the antipsychotic quetiapine for "bipolar spectrum disorder" in preschool children aged 4 to 6 (Joshi et al., 2012). The restrictions imposed by Harvard seem hardly to have dented Biederman's research activities, which currently receive support from the drug companies Janssen, Shire, and Next Wave pharmaceuticals (Joshi et al., 2012).

Conclusion: Shaping the self

Psychiatric concepts are products of social forces. As Martin points out, there is consistency between what is popularly understood as bipolar behaviour, and the values of 21st-century capitalism with its frenzied financial speculation and its spectacular booms and busts (Martin, 2009). The culturally syntonic nature of this new concept of bipolar disorder has allowed it to be simultaneously valourised and pathologised, making it an attractive target for a pharmaceutical industry on the lookout for new opportunities. The cultural meaning of labels such as bipolar disorder in turn affects the way that people in Western nations conceive of themselves and their everyday lives.

David Healy has shown how in the 1990s, with the discrediting of benzodiazepines and the promotion of the new antidepressants, the pharmaceutical industry helped to transform anxiety into depression (Healy, 2004). Advertisements and "disease awareness" campaigns, often sponsored by drug companies, provided people with a new language through which to understand their emotions. This language suggested that negative emotions were manifestations of a brain abnormality called "clinical depression" that was caused by a "chemical imbalance" and

which could be rectified with antidepressants. People were encouraged to view their difficulties through the lens of their brain chemicals (Rose, 2004). That "neurochemical self" has subsequently been transfigured from understanding its problem in terms of depression, serotonin, and antidepressants, to viewing them as manifestations of bipolar disorder, possibly related to dopamine dysfunction, and requiring antipsychotics or "mood stabilisers." Unlike depression, however, bipolar disorder potentially pathologises all emotional states, by encompassing positive emotions within the remit of the disorder alongside negative ones. On this view, the ideal emotional condition can only be achieved, for many at least, with the aid of drug treatment.

Sociologist, Jeffrey Stepnisky, has analysed the way in which biomedical technologies in general, and drug treatments in particular, are recruited to construct a modern sense of selfhood. "Where at one time the self was understood through the frameworks of religion, society, economics, politics or psychology" he observes, contemporary culture reflects the belief that "selfhood is mediated by brain chemistry and genetic heritage" (Stepnisky, 2007; p. 188). Based on interviews with antidepressant users he reflects that the use of psychiatric medication enables parts of the self that are unwanted or perceived as threatening to be split off or "held apart from the self" (2007, p. 202). This orientation contrast with previous attitudes embodied in religion and also in classical psychoanalysis that "sought to integrate suffering and sadness into the story and purpose of a person's life" (2007, p. 202). Although the process of splitting may enable some people to function better in practical terms, it also renders whole areas of human existence uninterpretable, because they are attributed to biological processes. In Stepnisky's view, the disavowal of the social, historical, and interpersonal aspects of selfhood and suffering hamper the quest for the sort of deeper understanding that "allows life to move forward" (2007, p. 204).

The consequences of growing up with this limited view of self are explored in research with adolescents who have been prescribed psychotropic medication. Studies reveal how young people absorb the language of illness and diagnosis from parents, doctors, and the media, reinforced by the use of medication, and how this infiltrates their sense of self and agency (Floersch et al., 2009). Children who have been on medication from a young age may have difficulty understanding and developing mastery over their emotions and behaviours if they have learnt to view them simply as symptoms and have never fully developed, or even known, a drug-free sense of self (Barnett, 2012; Sharpe, 2012).

At a sociocultural level, the widespread use of psychotropic medication, alongside the view that its role is to correct an underlying deficiency, fosters the view that human beings are merely the incidental result of their biological makeup. The negative and positive aspects of experience can both be traced to the activities of neurons and brain chemicals, which can be successfully manipulated to optimise functioning. The concept of individual human beings as self-determining agents, whose collective nature creates a realm of culture that is more than the sum of its parts, is banished by this view, as critics of "neuro-culture" have pointed out

(Tallis, 2011). Moreover, this sort of biological determinism places the burden of social and economic problems on the supposed defects of individual brains. Getting depressed people better and back to work then substitutes for a proper examination of the problems generated by poverty, changes in the nature of employment, and social and family breakdown. The economic crash can be attributed to greedy, hyped up and possibly bipolar bankers, and domestic debt and divorce statistics seen as the result of the impulsive and unreliable actions of people with "unstable moods."

Despite these concerns, the neurochemical self can appeal to consumers, because, as Strudwick observed, identifying life's difficulties as brain disorder or a chemical imbalance can provide at least temporary comfort, through the enticing suggestion that there are simple pharmacological solutions to long-standing and complex problems. The benefits that accrue from occupying the sick role, or having a medical diagnosis, provide a further incentive for consumers to seek or accept a psychiatric diagnosis like bipolar disorder (Conrad & Potter, 2000). The imperative to seek an explanation for underperformance or failure becomes ever more pressing as society becomes more and more competitive. Young people describe how they feel an obligation now to seek medical intervention to enhance their performance at school, college, and work (Sharpe, 2012). Similarly, parents struggling to bring up children in line with prevailing expectations may reach for the apparently concrete and blame-sparing notion that the root of the problem lies in the child's brain.

A further reason for the consumer appeal of psychiatric diagnosis like bipolar disorder lies in the psychoactive effects of the prescribed medications. Although the allure may be most obvious in the case of the stimulant drugs prescribed for ADHD, which have well-established recreational use, the mental clouding produced by antipsychotics and anticonvulsants may sometimes appeal to those in distress because of its ability to dull painful emotions.

The pharmaceutical industry did not lack a willing audience for its marketing activities therefore, but nevertheless, it is likely that the popularity of the modern concept of bipolar disorder is largely attributable to the considerable resources that have been devoted to its creation and dissemination. The concept's commercial success was that it allowed the migration of drugs such as the atypical antipsychotics out of the arena of severe mental disorder into the much larger market of people with everyday ups and downs. A licence for use in bipolar I enabled this to occur without the infringement of restrictions on off-label marketing. With their strongly sedative effects, it was easy to demonstrate that the drugs had some impact on mania, and once a licence was obtained, the increasingly vague and appealing notion of the condition helped to spread use of the drugs way beyond the situations for which they had been tested. Academic psychiatry was complicit in this trend, which has culminated in the increasing use of these dangerous drugs in young children with behaviour problems.

In bipolar disorder, therefore, pharmaceutical companies found a diagnosis that allowed them to present their drugs as a specific treatment for serious disorder, while simultaneously thrusting them at a wide cross-section of the population.

Bipolar disorder proved to be as flexible as labels like depression and anxiety had been in the past, allowing the use of antipsychotics and "mood stabilisers" in the general population to creep up without provoking the backlash that eventually came against their unlicensed use for conditions like dementia. When the drugs go off patent, no doubt the publicity surrounding bipolar disorder will diminish. Other disorders will arise associated with newer and more profitable prescription medications. In the meantime, we can only hope that by documenting the strategy to transform and market bipolar disorder, people will be able to make more informed choices about whether this label, and the drugs on offer to treat it, represent the best solution for their particular problems.

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References

Akiskal, H. S. (1996). The prevalent clinical spectrum of bipolar disorders: Beyond DSM-IV. *Journal of Clinical Psychopharmacology*, *16*, 4S–14S.

Alexander, G. C., Gallagher, S. A., Mascola, A., Moloney, R. M., & Stafford, R. S. (2011). Increasing off-label use of antipsychotic medications in the United States, 1995–2008. *Pharmacoepidemiological Drug Safety*, *20*, 177–184.

Allen, S. (2007, June 17). Backlash on bipolar diagnoses in children. *Boston Globe*. Retrieved from http://www.boston.com/yourlife/health/diseases/articles/2007/06/17/backlash_on_bipolar_diagnoses_in_children/

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington DC: American Psychiatric Association.

Angst, J. (1998). The emerging epidemiology of hypomania and bipolar II disorder. *Journal of Affective Disorders*, *50*, 143–151.

Angst, J., Gamma, A., Benazzi, F., Ajdacic, V., Eich, D., & Rossler, W. (2003). Toward a redefinition of subthreshold bipolarity: Epidemiology and proposed criteria for bipolar-II, minor bipolar disorders and hypomania. *Journal of Affective Disorders*, *73*, 133–146.

AstraZeneca. (2012). *Bipolar disorder*. Retrieved from http://www.seroquelxr.com/bipolar-disorder/index.aspx?ux=t

Baldessarini, R. J., Tondo, L., & Viguera, A. C. (1999). Discontinuing lithium maintenance treatment in bipolar disorders: Risks and implications. *Bipolar Disorders*, *1*, 17–24.

Barnett, K. (2012). *Dosed: The medication generation grows up*. Boston, MA: Beacon Press.

Barton, C. D. Jr., Dufer, D., Monderer, R., Cohen, M. J., Fuller, H. J., Clark, M. R., ... DePaulo, J. R. Jr. (1993). Mood variability in normal subjects on lithium. *Biological Psychiatry*, *34*, 878–884.

Biederman, J., Faraone, S., Mick, E., Wozniak, J., Chen, L., Ouellette, C., ... Lelon, E. (1996). Attention-deficit hyperactivity disorder and juvenile mania: An overlooked comorbidity? *Journal of the American Academy of Child and Adolescent Psychiatry*, *35*, 997–1008.

Biederman, J., Mick, E., Hammerness, P., Harpold, T., Aleardi, M., Dougherty, M., ... Wozniak, J. (2005). Open-label, 8-week trial of olanzapine and risperidone for

the treatment of bipolar disorder in preschool-age children. *Biological Psychiatry*, *58*, 589–594.
Bipolar, UK (2012). *Medications for bipolar: A short description and resource guide*. Retrieved from http://www.bipolaruk.org.uk/assets/uploads/documents/information_-leaflets/bipolar_uk_introduction_to_medical_treatment.pdf
Bostic, J. Q., Wilens, T., Spencer, T., & Biederman, J. (1997). Juvenile mood disorders and office psychopharmacology. *Pediatric Clinics of North America*, *44*, 1487–1503.
Bowden, C. L. (1998). New concepts in mood stabilization: Evidence for the effectiveness of valproate and lamotrigine. *Neuropsychopharmacology*, *19*, 194–199.
Calil, H. M., Zwicker, A. P., & Klepacz, S. (1990). The effects of lithium carbonate on healthy volunteers: Mood stabilization? *Biological Psychiatry*, *27*, 711–722.
Carey, B. (2007, February 15). Debate over children and psychiatric drugs. *New York Times*. Retrieved from http://www.nytimes.com/2007/02/15/us/15bipolar.html
Chan, D., & Sireling, L. (2010). "I want to be bipolar"... A new phenomenon. *The Psychiatrist*, *34*, 103–105.
Conrad, P., & Potter, D. (2000). From hyperactive children to ADHD adults: Observations on the expansion of medical categories. *Social Problems*, *47*, 559–582.
Eli, L. (2011). *How Zyprexa works*. Accessed March 25, 2011 from www.zyprexa.com/schizophrenia/pages/howzyprexaworks.aspx
Faraone, S. V., Biederman, J., Mennin, D., & Russell, R. (1998). Bipolar and antisocial disorders among relatives of ADHD children: Parsing familial subtypes of illness. *American Journal of Medical Genetics*, *81*, 108–116.
Floersch, J., Townsend, L., Longhofer, J., Munson, M., Winbush, V., Kranke, D., . . . Findling, R. L. (2009). Adolescent experience of psychotropic treatment. *Transcultural Psychiatry*, *46*, 157–179.
Ghaemi, S. N. (2001). On defining "mood stabilizer." *Bipolar Disorder*, *3*, 154–158.
Goldberg, I. (2013). *Bipolar screening quiz*. Retrieved from http://psychcentral.com/quizzes/bipolarquiz.htm
Groopman J. (2007, April 9) What's normal: The difficulty of diagnosing bipolar in children. *The New Yorker*. Retrieved from http://www.newyorker.com/reporting/2007/04/09/070409fa_fact_groopman
Harris G. (2008, November 25). Research centre tied to drug company. *New York Times*. Retrieved from http://www.nytimes.com/2008/11/25/health/25psych.html?pagewanted=all&_r=0
Harris G., & Carey B. (2008, June 8). Researchers fail to reveal full drug pay. *New York Times*. Retrieved from http://www.nytimes.com/2008/06/08/us/08conflict.html?pagewanted=all&_r=0
Harris, M., Chandran, S., Chakraborty, N., & Healy, D. (2005). The impact of mood stabilizers on bipolar disorder: The 1890s and 1990s compared. *History of Psychiatry*, *16*, 423–434.
Healy, D. (2004). Shaping the intimate: Influences on the experience of everyday nerves. *Social Studies of Science*, *34*, 219–245.
Healy, D. (2006). The latest mania: Selling bipolar disorder. *PLoS Medicine*, *3*, e185.
Healy, D. (2008). *Mania: A short history of bipolar disorder*. Baltimore, MD: John Hopkins University Press.
Healy, D., & Le Noury, J. (2007). Pediatric bipolar disorder: An object study in the creation of an illness. *International Journal of Risk and Safety in Medicine*, *19*, 209–221.

Ho, B. C., Andreasen, N. C., Ziebell, S., Pierson, R., & Magnotta, V. (2011). Long-term antipsychotic treatment and brain volumes: A longitudinal study of first-episode schizophrenia. *Archives of General Psychiatry*, *68*, 128–137.

Ilyas, S., & Moncrieff, J. (2012). Trends in prescriptions and costs of drugs for mental disorders in England, 1998 to 2010. *British Journal of Psychiatry*, *200*(5), 393–398.

IMS Institute for Healthcare Informatics. (2011). *The use of medicines in the United States: Review of 2010*. IMS Institute for Healthcare Informatics. Accessed April 15, 2013 from www.imshealth.com

Joshi, G., Petty, C., Wozniak, J., Faraone, S. V., Doyle, R., Georgiopoulos, A., . . . Biederman, J. (2012). A prospective open-label trial of quetiapine monotherapy in preschool and school age children with bipolar spectrum disorder. *Journal of Affective Disorders*, *136*, 1143–1153.

Kluger, J., & Song S. (2002, August 19). Manic depression: Young and bipolar. *Time Magazine*. Retrieved from http://content.time.com/time/magazine/article/0,9171,1003048,00.html

Koerner, B. (2002). Disorders made to order. *Mother Jones*, *27*, 58–63.

Kowatch, R. A., Fristad, M., Birmaher, B., Wagner, K. D., Findling, R. L., & Hellander, M. (2005). Treatment guidelines for children and adolescents with bipolar disorder. *Journal of the American Academy of Child and Adolescent Psychiatry*, *44*, 213–235.

Liu, H. Y., Potter, M. P., Woodworth, K. Y., Yorks, D. M., Petty, C. R., Wozniak, J. R., . . . Biederman, J. (2011). Pharmacologic treatments for pediatric bipolar disorder: A review and meta-analysis. *Journal of the American Academy of Child and Adolescent Psychiatry*, *50*, 749–762.

Martin, E. (2009). *Bipolar expeditions: Mania and depression in American culture*. Princeton, NJ: Princeton University Press.

Moncrieff, J. (2008). *The Myth of the chemical cure: A critique of psychiatric drug treatment*. Basingstoke, UK: Palgrave Macmillan.

Moncrieff, J., Cohen, D., & Mason, J. P. (2009). The subjective experience of taking antipsychotic medication: A content analysis of Internet data. *Acta Psychiatrica Scandinavica*, *120*, 102–111.

National Institute of Mental Health. (2013). *Bipolar disorder*. Retrieved from http://www.nimh.nih.gov/health/publications/bipolar-disorder/complete-index.shtml

NHS Choices. (2013). *Causes of bipolar disorder NHS Choices*. Retrieved from http://www.nhs.uk/Conditions/Bipolar-disorder/Pages/Causes.aspx

Olfson, M., Blanco, C., Liu, L., Moreno, C., & Laje, G. (2006). National trends in the outpatient treatment of children and adolescents with antipsychotic drugs. *Archives of General Psychiatry*, *63*, 679–685.

Paris, J. (2009). The bipolar spectrum: A critical perspective. *Harvard Review of Psychiatry*, *17*, 206–213.

Paris, J. (2012). *Bipolar spectrum: Diagnosis or fad?* New York, NY: Routledge.

Parker, G., Fink, M., Shorter, E., Taylor, M. A., Akiskal, H., Berrios, G., . . . Swartz, C. (2010). Issues for DSM-5: Whither melancholia? The case for its classification as a distinct mood disorder. *American Journal of Psychiatry*, *167*, 745–747.

Perugi, G., & Akiskal, H. S. (2002). The soft bipolar spectrum redefined: Focus on the cyclothymic, anxious-sensitive, impulse-dyscontrol, and binge-eating connection in bipolar II and related conditions. *Psychiatric Clinics of North America*, *25*, 713–737.

Pfizer. (2011). *About bipolar disorder*. Accessed April 16, 2013 from https://www.geodon.com/what-is-bipolar-disorder.aspx. Cited in Spielmans (2009). Retrevied from http://www.network54.com/Realm/peageedocs/ZY1_00027106.pdf

Porat, Z. (2002). Research summary and recommendations first quarter 2002: Zyprexa in primary care. Cited in Spielmans (2009). Retrevied from http://www.network54.com/Realm/peageedocs/ZY1_00027106.pdf

Rose, N. (2004). Becoming neurochemical selves. In N. Stehr (Ed.) *Biotechnology, commerce and civil society* (pp. 89–128). New Brunswick, NJ: Transaction.

Royal College of Psychiatrists. (2013). *Bipolar disorder*. Retrieved from http://www.rcpsych.ac.uk/expertadvice/problems/bipolardisorder/bipolardisorder.aspx

Sharpe, K. (2012). *Coming of age on Zoloft: How antidepressants cheered us up, let us down and changed who we are*. New York, NY: Harper Perennial.

Spielmans, G. I. (2009). The promotion of olanzapine in primary care: An examination of internal industry documents. *Social Science and Medicine*, *69*, 14–20.

Spielmans, G. I., & Parry, P. I. (2010). From evidence-based medicine to marketing-based medicine: Evidence from internal industry documents. *Journal of Bioethical Inquiry*. Retrieved from http://i.bnet.com/blogs/spielmans-parry-ebm-to-mbm-jbioethicinqu-2010.pdf

Stepnisky, J. (2007). The biomedical self: Hermeneutic considerations. *Social Theory and Health*, *5*, 187–207.

Strudwick, P. (2012, May 26). How a stressful job led to my bipolar diagnosis. *The Times*. Retrieved from http://www.thetimes.co.uk/tto/health/mental-health/article3425681.ece

Suppes, T., Baldessarini, R. J., Faedda, G. L., & Tohen, M. (1991). Risk of recurrence following discontinuation of lithium treatment in bipolar disorder. *Archives of General Psychiatry*, *48*, 1082–1088.

Tallis, R. (2011). *Aping mankind: Neuromania, Darwinitis and the misrepresentation of humanity*. London, UK: Acumen.

Tohen, M., Calabrese, J. R., Sachs, G. S., Banov, M. D., Detke, H. C., Risser, R., . . . Bowden, C. L. (2006). Randomized, placebo-controlled trial of olanzapine as maintenance therapy in patients with bipolar I disorder responding to acute treatment with olanzapine. *American Journal of Psychiatry*, *163*, 247–256.

Van Voris, R., & Lawrence, J. (2010). Pfizer told to pay $142.1 million for Neurontin marketing fraud. *Bloomberg News*. Retrieved from http://www.bloomberg.com/apps/news?pid-email_en&sid=a_9aVylZQGjU

Wen, P. (2010, March 26). Father convicted of 1st degree murder in death of Rebecca Riley. *Boston Globe*. Retrieved from http://www.boston.com/news/local/breaking_news/2010/03/hold_for_verdic_1.html

Wilson, R. (Director and producer) & Douglas, L. (producer) (2006). *The Secret Life of a Manic Depressive [television documentary]*. London, UK: British Broadcasting Corporation.

Winokur, G. (1975). The Iowa 500: Heterogeneity and course in manic-depressive illness (bipolar). *Comprehensive Psychiatry*, *16*, 125–131.

World Health Organisation. (1990). *International classification of diseases, Version 10*. Geneva: World Health Organisation.

Yu, X. (2011, July 2). Three professors face sanctions after Harvard Medical School inquiry. *The Harvard Crimson*. Retrieved from http://www.thecrimson.com/article/2011/7/2/school-medical-harvard-investigation/

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