

Multiple-Choice Questions

1. What do we call an anxiety disorder marked by a persistent, irrational fear and avoidance of a specific object, activity, or situation?
 - a. Obsessive-compulsive disorder
 - b. Phobia
 - c. Panic disorder
 - d. Generalized anxiety disorder
 - e. Posttraumatic stress disorder
2. A person troubled by repetitive thoughts or actions is most likely experiencing which of the following?
 - a. Generalized anxiety disorder
 - b. Posttraumatic stress disorder
 - c. Panic disorder
 - d. Obsessive-compulsive disorder
 - e. Fear conditioning
3. The key difference between obsessions and compulsions is that compulsions involve repetitive
 - a. thoughts.
 - b. experiences.
 - c. behaviors.
 - d. memories.
 - e. concerns.

Practice FRQs

1. Name the two contemporary perspectives used by psychologists to understand anxiety disorders. Then explain how or what psychologists study within each perspective.
2. Name and describe two anxiety disorders. (4 points)

Answer

1 point: The learning perspective

1 point: Psychologists using the learning perspective study fear conditioning, observational learning, or cognitive processes.

1 point: The biological perspective

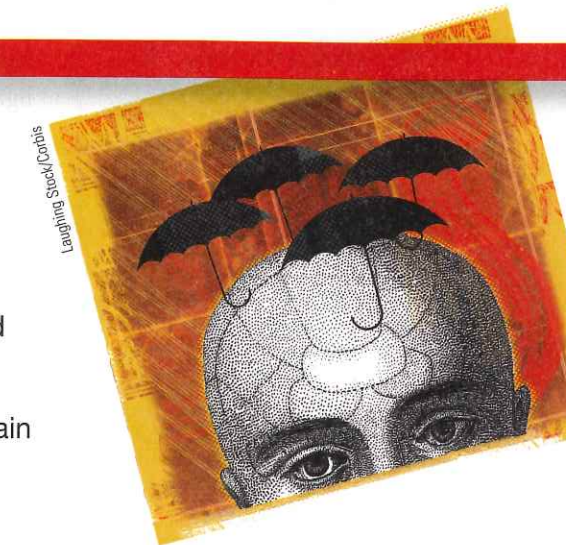
1 point: Psychologists using the biological perspective study natural selection, genes, or the brain.

Module 67

Mood Disorders

Module Learning Objectives

- 67-1** Define *mood disorders*, and contrast major depressive disorder and bipolar disorder.
- 67-2** Describe how the biological and social-cognitive perspectives explain mood disorders.
- 67-3** Discuss the factors that affect suicide and self-injury, and identify important warning signs to watch for in suicide-prevention efforts.



- 67-1** What are mood disorders? How does major depressive disorder differ from bipolar disorder?

The emotional extremes of **mood disorders** come in two principal forms: (1) *major depressive disorder*, with its prolonged hopelessness and lethargy, and (2) *bipolar disorder* (formerly called *manic-depressive disorder*), in which a person alternates between depression and *mania*, an overexcited, hyperactive state.

mood disorders psychological disorders characterized by emotional extremes. See *major depressive disorder*, *mania*, and *bipolar disorder*.

Major Depressive Disorder

If you are like most high school students, at some time during this year—more likely the dark months of winter than the bright days of summer—you will probably experience some of depression's symptoms. You may feel deeply discouraged about the future, dissatisfied with your life, or socially isolated. You may lack the energy to get things done or even to force yourself out of bed; be unable to concentrate, eat, or sleep normally; or even wonder if you would be better off dead. Perhaps academic success came easily to you in middle school, and now you find that disappointing grades jeopardize your goals. Maybe social stresses, such as feeling you don't belong or experiencing the end of a romance, have plunged you into despair. And maybe brooding has at times only worsened your self-torment. Likely you think you are more alone in having such negative feelings than you really are (Jordan et al., 2011). In one survey of American high school students, 29 percent "felt so sad or hopeless almost every day for 2 or more weeks in a row that they stopped doing some usual activities" (CDC, 2008). In another national survey, of American collegians, 31 percent agreed when asked if in the past year they had at some time "felt so depressed that it was difficult to function" (ACHA, 2009). Misery has more company than most suppose.

Although phobias are more common, depression is the number-one reason people seek mental health services. At some point during their lifetime, depression plagues 12 percent of Canadian adults and 17 percent of U.S. adults (Holden, 2010; Patten et al., 2006). Moreover, it is the leading cause of disability worldwide (WHO, 2002). In any given year, a depressive episode plagues 5.8 percent of men and 9.5 percent of women, reports the World Health Organization.

"My life had come to a sudden stop. I was able to breathe, to eat, to drink, to sleep. I could not, indeed, help doing so; but there was no real life in me." -LEO TOLSTOY, *MY CONFESSION*, 1887

"Depression . . . is well adapted to make a creature guard itself against any great or sudden evil."

—CHARLES DARWIN, *THE LIFE AND LETTERS OF CHARLES DARWIN*, 1887

"If someone offered you a pill that would make you permanently happy, you would be well advised to run fast and run far. Emotion is a compass that tells us what to do, and a compass that is perpetually stuck on NORTH is worthless." —DANIEL GILBERT, "THE SCIENCE OF HAPPINESS," 2006

major depressive disorder

a mood disorder in which a person experiences, in the absence of drugs or another medical condition, two or more weeks with five or more symptoms, at least one of which must be either (1) depressed mood or (2) loss of interest or pleasure.

As anxiety is a response to the threat of future loss, depressed mood is often a response to past and current loss. About one in four people diagnosed with depression is debilitated by a significant loss, such as a loved one's death, a ruptured marriage, or a lost job (Wakefield et al., 2007). To feel bad in reaction to profoundly sad events is to be in touch with reality. In such times, there is an up side to being down. Sadness is like a car's low-fuel light—a signal that warns us to stop and take appropriate measures. Recall that, biologically speaking, life's purpose is not happiness but survival and reproduction. Coughing, vomiting, swelling, and pain protect the body from dangerous toxins. Similarly, depression is a sort of psychic hibernation: It slows us down, defuses aggression, helps us let go of unattainable goals, and restrains risk taking (Andrews & Thomson, 2009a,b; Wrosch & Miller, 2009). To grind temporarily to a halt and ruminate, as depressed people do, is to reassess one's life when feeling threatened, and to redirect energy in more promising ways (Watkins, 2008). Even mild sadness can improve people's recall, make them more discerning, and help them make complex decisions (Forgas, 2009). There is sense to suffering.

But when does this response become seriously maladaptive? Joy, contentment, sadness, and despair are different points on a continuum, points at which any of us may be found at any given moment. The difference between a blue mood after bad news and a mood disorder is like the difference between gasping for breath after a hard run and being chronically short of breath.

Major depressive disorder occurs when at least five signs of depression last two or more weeks (TABLE 67.1). To sense what major depression feels like, suggest some clinicians, imagine combining the anguish of grief with the sluggishness of bad jet lag.

Adults diagnosed with *persistent depressive disorder* (also called *dysthymia*) experience a mildly depressed mood more often than not for at least two years (American Psychiatric Association, 2013). They also display at least two of the following symptoms:

1. Problems regulating appetite
2. Problems regulating sleep
3. Low energy
4. Low self-esteem
5. Difficulty concentrating and making decisions
6. Feelings of hopelessness

Table 67.1 Diagnosing Major Depressive Disorder

The DSM-5 classifies major depressive disorder as the presence of at least five of the following symptoms over a two-week period of time (including depressed mood or loss of interest or pleasure). The symptoms must cause near-daily distress or impairment and not be attributable to substance use or another medical or mental illness.

- Depressed mood most of the day
- Markedly diminished interest or pleasure in activities most of the day
- Significant weight loss or gain when not dieting, or significant decrease or increase in appetite
- Insomnia or sleeping too much
- Physical agitation or lethargy
- Fatigue or loss of energy
- Feeling worthless, or excessive or inappropriate guilt
- Problems in thinking, concentrating, or making decisions
- Recurrent thoughts of death and suicide

Bipolar Disorder

With or without therapy, episodes of major depression usually end, and people temporarily or permanently return to their previous behavior patterns. However, some people rebound to, or sometimes start with, the opposite emotional extreme—the euphoric, hyperactive, wildly optimistic state of **mania**. If depression is living in slow motion, mania is fast forward. Alternating between depression and mania (week to week, and not day to day or moment to moment) signals **bipolar disorder**.

Adolescent mood swings, from rage to bubbly, can, when prolonged, produce a bipolar diagnosis. Between 1994 and 2003, U.S. National Center for Health Statistics annual physician surveys revealed an astonishing 40-fold increase in diagnoses of bipolar disorder in those 19 and under—from an estimated 20,000 to 800,000 (Carey, 2007; Flora & Bobby, 2008; Moreno et al., 2007). The new popularity of the diagnosis, given in two-thirds of the cases to boys, has been a boon to companies whose drugs are prescribed to lessen mood swings. The DSM-5 will likely reduce the number of child and adolescent bipolar diagnoses, by classifying as *disruptive mood dysregulation disorder* some of those with emotional volatility (Miller, 2010).

During the manic phase, people with bipolar disorder are typically overtalkative, overactive, and elated (though easily irritated); have little need for sleep; and show fewer sexual inhibitions. Speech is loud, flighty, and hard to interrupt. They find advice irritating. Yet they need protection from their own poor judgment, which may lead to reckless spending or unsafe sex.

In milder forms, mania's energy and free-flowing thinking does fuel creativity. George Frideric Handel, who may have suffered from a mild form of bipolar disorder, composed his nearly four-hour-long *Messiah* (1742) during three weeks of intense, creative energy (Keynes, 1980). Robert Schumann composed 51 musical works during two years of mania (1840 and 1849) and none during 1844, when he was severely depressed (Slater & Meyer, 1959). Those who rely on precision and logic, such as architects, designers, and journalists, suffer bipolar disorder less often than do those who rely on emotional expression and vivid imagery (Ludwig, 1995). Composers, artists, poets, novelists, and entertainers seem especially prone (Jamison, 1993, 1995; Kaufman & Baer, 2002; Ludwig, 1995).



Actress
Catherine Zeta-Jones
WireImage/Getty Images



Humorist
Samuel Clemens (Mark Twain)
The Granger Collection



Writer
Virginia Woolf
George C. Beresford/Hulton Getty Pictures Library



Movie Producer
Tim Burton
Jemal Countess/Getty Images

Creativity and bipolar disorder

There are many creative artists, composers, writers, and musical performers with bipolar disorder. Madeleine L'Engle wrote in *Circle of Quiet* (1972): "All the people in history, literature, art, whom I most admire: Mozart, Shakespeare, Homer, El Greco, St. John, Chekhov, Gregory of Nyssa, Dostoevsky, Emily Brontë: not one of them would qualify for a mental-health certificate."

FYI

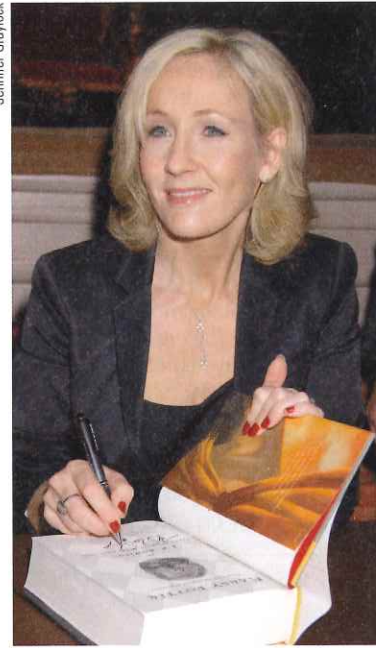
For some people suffering depressive disorders or bipolar disorder, symptoms may have a *seasonal pattern*. Depression may regularly return each fall or winter, and mania (or a reprieve from depression) may dependably arrive with spring. For many others, winter darkness simply means more blue moods. When asked "Have you cried today?" Americans have agreed more often in the winter.

	Percentage who cried	
	Men	Women
August	4%	7%
December	8%	21%

Source: *Time/CNN* survey, 1994.

mania a mood disorder marked by a hyperactive, wildly optimistic state.

bipolar disorder a mood disorder in which a person alternates between the hopelessness and lethargy of depression and the overexcited state of mania. (Formerly called *manic-depressive disorder*.)



Life after depression Writer J. K. Rowling reports suffering acute depression—a “dark time,” with suicidal thoughts—between ages 25 and 28. It was, she said, a “terrible place” that did, however, form a foundation that allowed her “to come back stronger” (McLaughlin, 2010).

It is as true of emotions as of everything else: What goes up comes down. Before long, the elated mood either returns to normal or plunges into a depression. Though bipolar disorder is much less common than major depressive disorder, it is often more dysfunctional, claiming twice as many lost workdays yearly (Kessler et al., 2006). Among adults, it afflicts men and women about equally.

Understanding Mood Disorders

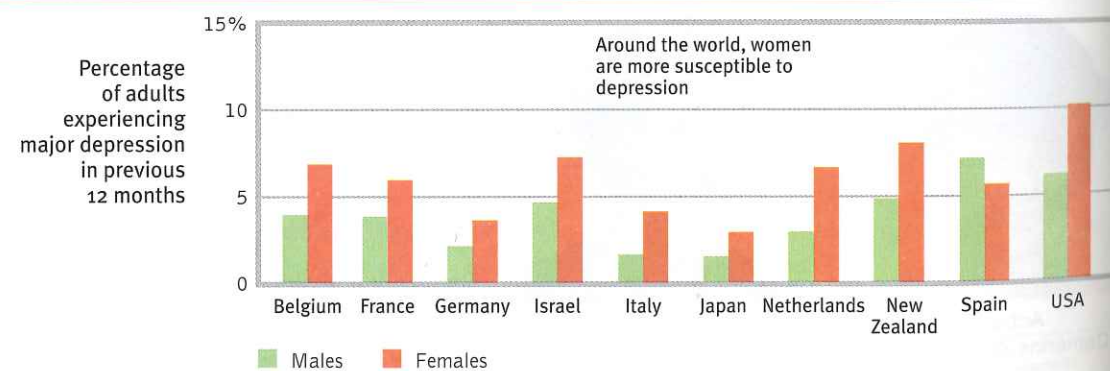
67-2 How do the biological and social-cognitive perspectives explain mood disorders?

In thousands of studies, psychologists have been accumulating evidence to help explain mood disorders and suggest more effective ways to treat and prevent them. Researcher Peter Lewinsohn and his colleagues (1985, 1998, 2003) summarized the facts that any theory of depression must explain, including the following:

- **Many behavioral and cognitive changes accompany depression.** People trapped in a depressed mood are inactive and feel unmotivated. They are sensitive to negative happenings (Peckham et al., 2010). They more often recall negative information. They expect negative outcomes (my team will lose, my grades will fall, my love will fail). When the mood lifts, these behavioral and cognitive accompaniments disappear. Nearly half the time, people also exhibit symptoms of another disorder, such as anxiety or substance use disorder.
- **Depression is widespread.** Its commonality suggests that its causes, too, must be common.
- **Women’s risk of major depression is nearly double men’s.** When Gallup in 2009 asked more than a quarter-million Americans if they had ever been diagnosed with depression, 13 percent of men and 22 percent of women said they had (Pelham, 2009). This gender gap has been found worldwide (**FIGURE 67.1**). The trend begins in adolescence; preadolescent girls are not more depression-prone than are boys (Hyde et al., 2008).

Figure 67.1

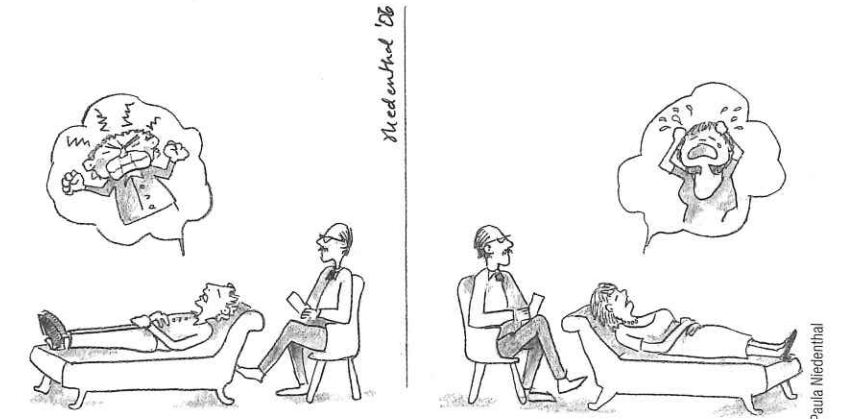
Gender and major depression Interviews with 89,037 adults in 18 countries (10 shown here) confirm what many smaller studies have found: Women’s risk of major depression is nearly double that of men’s.



The factors that put women at risk for depression (genetic predispositions, child abuse, low self-esteem, marital problems, and so forth) similarly put men at risk (Kendler et al., 2006). Yet women are more vulnerable to disorders involving internalized states, such as depression, anxiety, and inhibited sexual desire. Men’s disorders tend to be more external—alcohol use disorder, antisocial conduct, lack of impulse control. When women get sad, they often get sadder than men do. When men get mad, they often get madder than women do.

- **Most major depressive episodes self-terminate.** Although therapy often helps and tends to speed recovery, most people suffering major depression eventually return to normal even without professional help. The plague of depression comes and, a few weeks or months later, it goes, though for about half of people it eventually

recurs (Borcusa & Iacono, 2007; Curry et al., 2011; Hardeveld et al., 2010). For only about 20 percent is the condition chronic (Klein, 2010). On average, patients with major depression today will spend about three-fourths of the next decade in a normal, nondepressed state (Furukawa et al., 2009). Recovery is more likely to be permanent the later the first episode strikes, the longer the person stays well, the fewer the previous episodes, the less stress experienced, and the more social support received (Belscher & Costello, 1988; Fergusson & Woodward, 2002; Kendler et al., 2001).



The emotional lives of men and women?

- **Stressful events related to work, marriage, and close relationships often precede depression.**

A family member’s death, a job loss, a marital crisis, or a physical assault increase one’s risk of depression (Kendler et al., 2008; Monroe & Reid, 2009; Orth et al., 2009). If stress-related anxiety is a “crackling, menacing brushfire,” notes biologist Robert Sapolsky (2003), “depression is a suffocating heavy blanket thrown on top of it.” One long-term study (Kendler, 1998) tracked rates of depression in 2000 people. The risk of depression ranged from less than 1 percent among those who had experienced no stressful life event in the preceding month to 24 percent among those who had experienced three such events in that month.

- **With each new generation, depression is striking earlier (now often in the late teens) and affecting more people, with the highest rates in developed countries among young adults.** This is true in Canada, the United States, England, France, Germany, Italy, Lebanon, New Zealand, Puerto Rico, and Taiwan (Collishaw et al., 2007; Cross-National Collaborative Group, 1992; Kessler et al., 2010; Twenge et al., 2008). In one study, 12 percent of Australian adolescents reported symptoms of depression (Sawyer et al., 2000). Most hid it from their parents; almost 90 percent of those parents perceived their depressed teen as *not* suffering depression. In North America, today’s young adults are three times more likely than their grandparents to report having recently—or ever—suffered depression (despite the grandparents’ many more years of being at risk). The increase appears partly authentic, but it may also reflect today’s young adults’ greater willingness to disclose depression.

Today’s researchers propose biological and cognitive explanations of depression, often combined in a biopsychosocial approach.

The Biological Perspective

GENETIC INFLUENCES

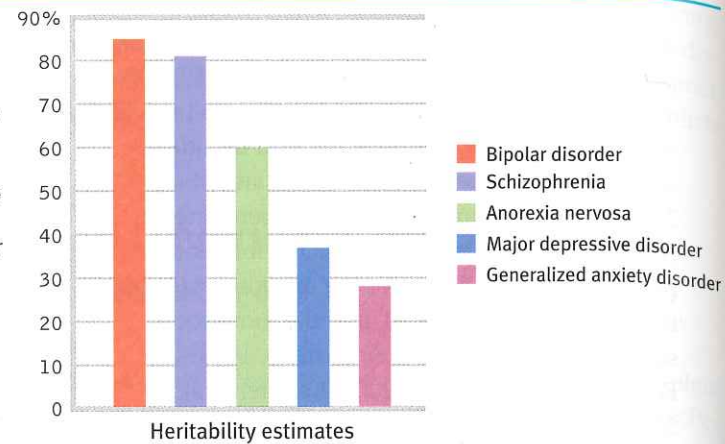
Mood disorders run in families. As one researcher noted, emotions are “postcards from our genes” (Plotkin, 1994). The risk of major depression and bipolar disorder increases if you have a parent or sibling with the disorder (Sullivan et al., 2000). If one identical twin is diagnosed with major depressive disorder, the chances are about 1 in 2 that at some time the other twin will be, too. If one identical twin has bipolar disorder, the chances are 7 in 10 that the other twin will at some point be diagnosed similarly. Among fraternal twins, the corresponding odds are just under 2 in 10 (Tsuang & Faraone, 1990). The greater similarity among identical twins holds even among twins raised apart (DiLalla et al., 1996). Summarizing the major twin studies, one research team estimated the heritability (extent to which individual differences are attributable to genes) of major depression at 37 percent (**FIGURE 67.2** on the next page).

“I see depression as the plague of the modern era.” —LEWIS JUDD, FORMER CHIEF, NATIONAL INSTITUTE OF MENTAL HEALTH, 2000

Figure 67.2

The heritability of various psychological disorders

Researchers Joseph Bienvenu, Dmitry Davydov, and Kenneth Kendler (2011) aggregated data from studies of identical and fraternal twins to estimate the heritability of bipolar disorder, schizophrenia, anorexia nervosa, major depressive disorder, and generalized anxiety disorder.



Moreover, adopted people who suffer a mood disorder often have close biological relatives who suffer mood disorders, develop alcohol use disorder, or commit suicide (Wender et al., 1986). (Close-up: Suicide and Self-Injury reports other research findings.)

Close-up

Suicide and Self-Injury

67-3 What factors affect suicide and self-injury, and what are some of the important warning signs to watch for in suicide prevention efforts?

"But life, being weary of these worldly bars, / Never lacks power to dismiss itself." -WILLIAM SHAKESPEARE, JULIUS CAESAR, 1599

Each year nearly 1 million despairing people worldwide will elect a permanent solution to what might have been a temporary problem. Comparing the suicide rates of different groups, researchers have found

- **national differences:** Britain's, Italy's, and Spain's suicide rates are little more than half those of Canada, Australia, and the United States. Austria's and Finland's are about double (WHO, 2011). Within Europe, people in the most suicide-prone country (Belarus) have been 16 times more likely to kill themselves than those in the least (Georgia).
- **racial differences:** Within the United States, Whites kill themselves twice as often as Blacks (AAS, 2010).
- **gender differences:** Women are much more likely than men to attempt suicide (WHO, 2011). But men are two to four times more likely (depending on the country) to actually end their lives. Men use more lethal methods, such as firing a bullet into the head, the method of choice in 6 of 10 U.S. suicides.
- **age differences and trends:** In late adulthood, rates increase, peaking in middle age and beyond. In the last half of the twentieth century, the global rate of annual suicide deaths nearly doubled (WHO, 2008).

- **other group differences:** Suicide rates are much higher among the rich, the nonreligious, and those who are single, widowed, or divorced (Hoyer & Lund, 1993; Stack, 1992; Stengel, 1981). When facing an unsupportive environment, including family or peer rejection, gay and lesbian youth are at increased risk of attempting suicide (Goldfried, 2001; Haas et al., 2011; Hatzenbuehler, 2011).
- **day of the week differences:** 25 percent of suicides occur on Wednesdays (Kposowa & D'Auria, 2009).

The risk of suicide is at least five times greater for those who have been depressed than for the general population (Bostwick & Pankratz, 2000). People seldom commit suicide while in the depths of depression, when energy and initiative are lacking. The risk increases when they begin to rebound and become capable of following through. Among people with alcohol use disorder, 3 percent die by suicide. This rate is roughly 100 times greater than the rate for people without alcohol use disorder (Murphy & Wetzell, 1990; Sher, 2006).

Because suicide is so often an impulsive act, environmental barriers (such as jump barriers on high bridges and the unavailability of loaded guns) can reduce suicides (Anderson, 2008). Although common sense might suggest that a determined person would simply find another way to complete the act, such restrictions give time for self-destructive impulses to subside.

Social suggestion may trigger suicide. Following highly publicized suicides and TV programs featuring suicide, known suicides increase. So do fatal auto and private airplane "accidents." One six-year study tracked suicide cases among all 1.2 million people who lived in metropolitan Stockholm at any time during the 1990s

(continued)

Close-up (continued)

(Hedström et al., 2008). Men exposed to a family suicide were 8 times more likely to commit suicide than were nonexposed men. Although that phenomenon may be partly attributable to family genes, shared genetic predispositions do not explain why men exposed to a co-worker's suicide were 3.5 times more likely to commit suicide, compared with nonexposed men.

Suicide is not necessarily an act of hostility or revenge. The elderly sometimes choose death as an alternative to current or future suffering. In people of all ages, suicide may be a way of switching off unendurable pain and relieving a perceived burden on family members. "People desire death when two fundamental needs are frustrated to the point of extinction," notes Thomas Joiner (2006, p. 47): "The need to belong with or connect to others, and the need to feel effective with or to influence others." Suicidal urges typically arise when people feel disconnected from others, and a burden to them (Joiner, 2010), or when they feel defeated and trapped by an inescapable situation (Taylor et al., 2011). Thus, suicide rates increase a bit during economic recessions (Luo et al., 2011). Suicidal thoughts also may increase when people are driven to reach a goal or standard—to become thin or straight or rich—and find it unattainable (Chatard & Selimbegović, 2011).

In hindsight, families and friends may recall signs they believe should have forewarned them—verbal hints, giving possessions away, or withdrawal and preoccupation with death. To judge from surveys of 84,850 people across 17 nations, about 9 percent of people at some point in their lives have thought seriously of suicide. About 30 percent of these (3 percent of people) actually attempt it (Nock et al., 2008). For only about 1 in 25 does the attempt become their final act (AAS, 2009). Of those who die, one-third had tried to kill themselves previously. Most discussed it beforehand. So, if a friend talks suicide to you, it's important to listen and to direct the person to professional help. Anyone who threatens suicide is at least sending a signal of feeling desperate or despondent.

NONSUICIDAL SELF-INJURY

Suicide is not the only way to send a message or deal with distress. Some people, especially adolescents and young adults, may engage in *nonsuicidal self-injury (NSSI)* (FIGURE 67.3). Such behavior includes cutting or burning the skin, hitting oneself, pulling hair out, inserting objects under the nails or skin, and self-administered tattooing (Fikke et al., 2011).

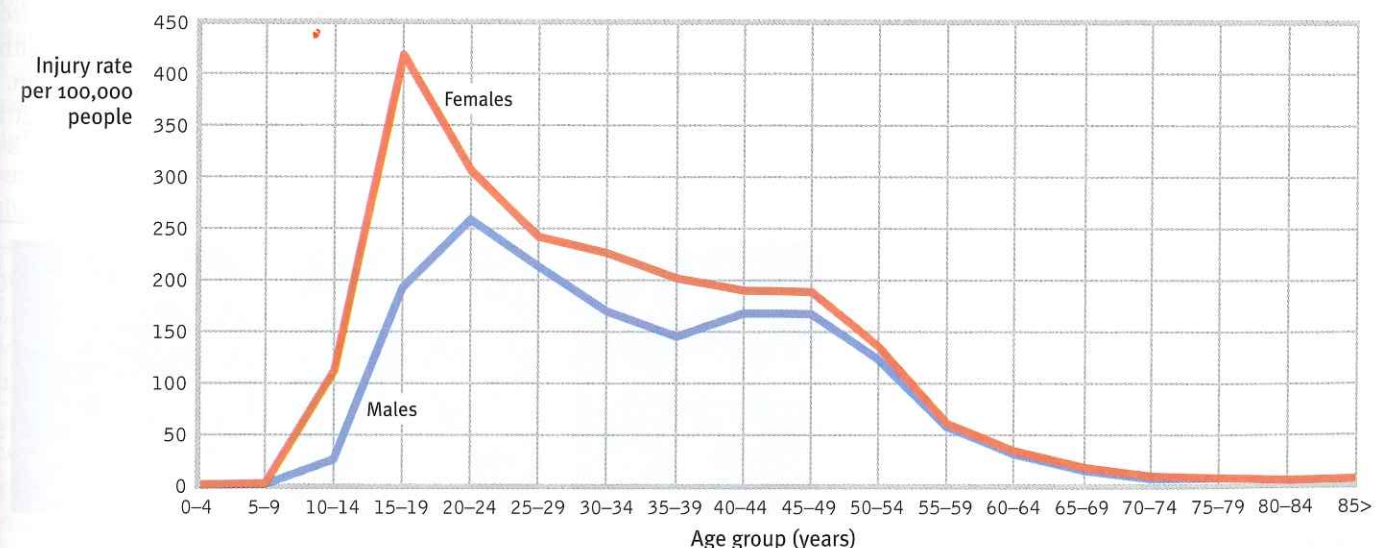
Why do people hurt themselves? Those who do so tend to be less able to tolerate emotional distress, are extremely self-critical, and often have poor communication and problem-solving skills (Nock, 2010). They engage in NSSI to

- gain relief from intense negative thoughts through the distraction of pain,
- ask for help and gain attention,
- relieve guilt by self-punishment
- get others to change their negative behavior (bullying, criticism), or
- to fit in with a peer group.

Does NSSI lead to suicide? Usually not. Those who engage in NSSI are typically *suicide gesturers*, not *suicide attempters* (Nock & Kessler, 2006). Suicide gesturers engage in NSSI as a desperate but non-life-threatening form of communication or when they are feeling overwhelmed. But NSSI has been shown to be a risk factor for future suicide attempts (Wilkinson & Goodyer, 2011). If people do not get help, their nonsuicidal behavior may escalate to suicidal ideation and finally, to attempted suicide.

Figure 67.3

Rates of nonfatal self-injury in the U.S. Self-injury rates peak higher for females than for males (CDC, 2009).



To tease out the genes that put people at risk for depression, some researchers have turned to *linkage analysis*. After finding families in which the disorder appears across several generations, geneticists examine DNA from affected and unaffected family members, looking for differences. Linkage analysis points us to a chromosome neighborhood, note behavior genetics researchers Robert Plomin and Peter McGuffin (2003); “a house-to-house search is then needed to find the culprit gene.” Such studies are reinforcing the view that depression is a complex condition. Many genes work together, producing a mosaic of small effects that interact with other factors to put some people at greater risk. If the culprit gene variations can be identified—with chromosome 3 genes implicated in separate British and American studies (Breen et al., 2011; Pergadia et al., 2011)—they may open the door to more effective drug therapy.

THE DEPRESSED BRAIN

Using modern technology, researchers are also gaining insight into brain activity during depressed and manic states, and into the effects of certain neurotransmitters during these states. One study gave 13 elite Canadian swimmers the wrenching experience of watching a video of the swim in which they failed to make the Olympic team or failed at the Olympic games (Davis et al., 2008). Functional MRI scans showed the disappointed swimmers experiencing brain activity patterns akin to those of patients with depressed moods.

Many studies have found diminished brain activity during slowed-down depressive states, and more activity during periods of mania (FIGURE 67.4). The left frontal lobe and an adjacent brain reward center are active during positive emotions, but less active during depressed states (Davidson et al., 2002; Heller et al., 2009). In one study of people with severe depression, MRI scans also found their frontal lobes 7 percent smaller than normal (Coffey et al., 1993). Other studies show that the hippocampus, the memory-processing center linked with the brain’s emotional circuitry, is vulnerable to stress-related damage.

Bipolar disorder likewise correlates with brain structure. Neuroscientists have found structural differences, such as decreased axonal white matter or enlarged fluid-filled ventricles, in the brains of people with bipolar disorder (Kempton et al., 2008; van der Schot et al., 2009).

Neurotransmitter systems influence mood disorders. Norepinephrine, which increases arousal and boosts mood, is scarce during depression and overabundant during mania. (Drugs that alleviate mania reduce norepinephrine.) Many people with a history of depression also have a history of habitual smoking, and smoking increases one’s risk for future depression (Pasco et al. 2008). This may indicate an attempt to self-medicate with inhaled nicotine, which can temporarily increase norepinephrine and boost mood (HMHL, 2002b).

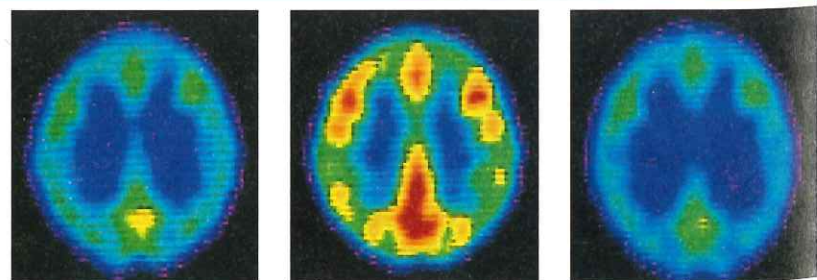
Researchers are also exploring a second neurotransmitter, serotonin (Carver et al., 2008). One well-publicized study of New Zealand young adults found that the recipe for depression combined two necessary ingredients—significant life stress plus a variation on a serotonin-controlling gene (Caspi et al., 2003; Moffitt et al., 2006). Depression arose from the interaction of an adverse environment plus a genetic susceptibility, but not from either alone. But stay tuned: The story of gene-environment interactions is still being written, as other researchers debate the reliability of this result (Caspi et al., 2010; Karg et al., 2011; Munafò et al., 2009; Risch et al., 2009; Uher & McGuffin, 2010).

AP® Exam Tip

You can review brain scanning techniques, neurotransmitters, and brain structures in Unit III.

Figure 67.4

The ups and downs of bipolar disorder These top-facing PET scans show that brain energy consumption rises and falls with the patient’s emotional switches. Areas where the brain rapidly consumes glucose are shown in red in these images.



Depressed state
(May 17)

Manic state
(May 18)

Depressed state
(May 27)

Drugs that relieve depression tend to increase norepinephrine or serotonin supplies by blocking either their reuptake (as Prozac, Zoloft, and Paxil do with serotonin) or their chemical breakdown. Repetitive physical exercise, such as jogging, reduces depression as it increases serotonin (Ilardi, 2009; Jacobs, 1994). Boosting serotonin may promote recovery from depression by stimulating hippocampus neuron growth (Airan et al., 2007; Jacobs et al., 2000).

What’s good for the heart is also good for the brain and mind. People who eat a heart-healthy “Mediterranean diet” (heavy on vegetables, fish, and olive oil) have a comparatively low risk of developing heart disease, late-life cognitive decline, and depression—all of which are associated with inflammation (Dowlati et al., 2010; Sánchez-Villegas et al., 2009; Tangney et al., 2011). Excessive alcohol use also correlates with depression—mostly because alcohol misuse leads to depression (Fergusson et al., 2009).

The Social-Cognitive Perspective

Depression is a whole-body disorder. Biological influences contribute to depression but don’t fully explain it. The social-cognitive perspective explores the roles of thinking and acting.

Depressed people view life through the dark glasses of low self-esteem (Orth et al., 2009). Their intensely negative assumptions about themselves, their situation, and their future lead them to magnify bad experiences and minimize good ones. Listen to Norman, a Canadian college professor, recalling his depression:

I [despaired] of ever being human again. I honestly felt subhuman, lower than the lowest vermin. Furthermore, I was self-deprecatory and could not understand why anyone would want to associate with me, let alone love me. . . . I was positive that I was a fraud and a phony and that I didn’t deserve my Ph.D. I didn’t deserve to have tenure; I didn’t deserve to be a Full Professor. . . . I didn’t deserve the research grants I had been awarded; I couldn’t understand how I had written books and journal articles. . . . I must have conned a lot of people. (Endler, 1982, pp. 45–49)

Research reveals how *self-defeating beliefs* and a *negative explanatory style* feed depression’s vicious cycle.

NEGATIVE THOUGHTS AND NEGATIVE MOODS INTERACT

Self-defeating beliefs may arise from *learned helplessness*. As we saw in Module 29, both dogs and humans act depressed, passive, and withdrawn after experiencing uncontrollable painful events. Learned helplessness is more common in women than in men, and women may respond more strongly to stress (Hankin & Abramson, 2001; Mazure et al., 2002; Nolen-Hoeksema, 2001, 2003). For example, 38 percent of women and 17 percent of men entering U. S. colleges and universities report feeling at least occasionally “overwhelmed by all I have to do” (Pryor et al., 2006). (Men report spending more of their time in “light anxiety” activities such as sports, TV watching, and partying, possibly avoiding activities that might make them feel overwhelmed.) This may help explain why, beginning in their early teens, women are nearly twice as vulnerable to depression. Susan Nolen-Hoeksema (2003) believed women’s higher risk of depression relates to what she described as their tendency to *overthink*, to ruminate. **Rumination**—staying focused on a problem (thanks to the continuous firing of a frontal lobe area that sustains attention)—can be adaptive (Altamirano et al., 2010; Andrews & Thomson, 2009a,b). But when it is relentless, self-focused rumination diverts us from thinking about other life tasks and produces a negative emotional inertia (Kuppens et al., 2010).

But why do life’s unavoidable failures lead only some people to become depressed? The answer lies partly in their *explanatory style*—who or what they blame for their failures (or credit for their successes). Think of how you might feel if you failed a test. If you can externalize the blame (“What an unfair test!”), you are more likely to feel angry. If you blame yourself, you probably will feel stupid and depressed.



Susan Nolen-Hoeksema

(1959–2013) “This epidemic of morbid meditation is a disease that women suffer much more than men. Women can ruminate about anything and everything—our appearance, our families, our career, our health.” (*Women Who Think Too Much: How to Break Free of Overthinking and Reclaim Your Life*, 2003)

rumination compulsive fretting; *overthinking* about our problems and their causes.

“I have learned to accept my mistakes by referring them to a personal history which was not of my making.” -B. F. SKINNER (1983)

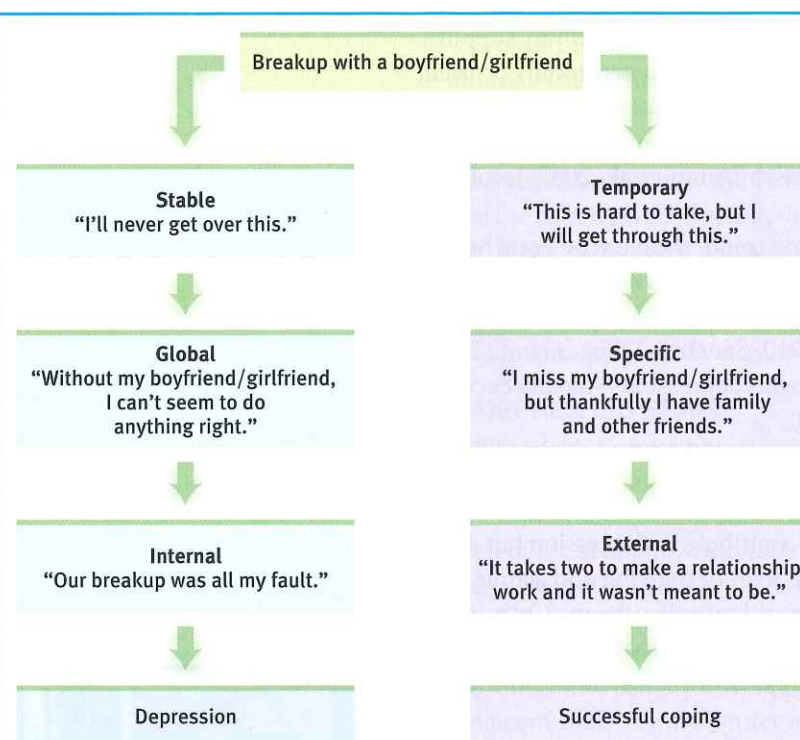


Figure 67.5

Explanatory style and depression

After a negative experience, a depression-prone person may respond with a negative explanatory style.

first episode of major depression, as did only 1 percent of those who began college with an optimistic thinking style.

Seligman (1991, 1995) has contended that depression is common among young Westerners because the rise of individualism and the decline of commitment to religion and family have forced young people to take personal responsibility for failure or rejection. In non-Western cultures, where close-knit relationships and cooperation are the norm, major depression is less common and less tied to self-blame over personal failure (WHO, 2004a). In Japan, for example, depressed people instead tend to report feeling shame over letting others down (Draguns, 1990a).

PEANUTS



Might Charlie Brown be helped by an optimism-training program?

There is, however, a chicken-and-egg problem with the social-cognitive explanation of depression. Self-defeating beliefs, negative attributions, and self-blame coincide with a depressed mood and are indicators of depression. But do they cause depression, any more than a speedometer's reading causes a car's speed? Before or after being depressed, people's thoughts are less negative. Perhaps this is because, as we noted in our discussion of state-dependent memory (Module 32), a depressed mood triggers negative thoughts. If you temporarily put people in a bad or sad mood, their memories, judgments, and expectations suddenly become more pessimistic.

DEPRESSION'S VICIOUS CYCLE

Depression, as we have seen, is often brought on by stressful experiences—losing a job, getting divorced or rejected, suffering physical trauma—by anything that disrupts our sense of who we are and why we are worthy human beings. This disruption in turn leads

"Man never reasons so much and becomes so introspective as when he suffers, since he is anxious to get at the cause of his sufferings." -LUIGI PIRANDELLO, SIX CHARACTERS IN SEARCH OF AN AUTHOR, 1922

So it is with depressed people, who tend to explain bad events in terms that are *stable* ("It's going to last forever"), *global* ("It's going to affect everything I do"), and *internal* ("It's all my fault") (FIGURE 67.5). Depression-prone people respond to bad events in an especially self-focused, self-blaming way (Mor & Winquist, 2002; Pyszczynski et al., 1991; Wood et al., 1990a,b). Their self-esteem fluctuates more rapidly up with boosts and down with threats (Butler et al., 1994).

The result of these pessimistic, overgeneralized, self-blaming attributions may be a depressing sense of hopelessness (Abramson et al., 1989; Panzarella et al., 2006). As Martin Seligman has noted, "A recipe for severe depression is preexisting pessimism encountering failure" (1991, p. 78). What then might we expect of new college students who are not depressed but do exhibit a pessimistic explanatory style? Lauren Alloy and her collaborators (1999) monitored Temple University and University of Wisconsin students every 6 weeks for 2.5 years. Among those identified as having a pessimistic thinking style, 17 percent had a

to brooding, which amplifies negative feelings. But being withdrawn, self-focused, and complaining can by itself elicit rejection (Furr & Funder, 1998; Gotlib & Hammen, 1992). In one study, researchers Stephen Strack and James Coyne (1983) noted that "depressed persons induced hostility, depression, and anxiety in others and got rejected. Their guesses that they were not accepted were not a matter of cognitive distortion." Indeed, people in the throes of depression are at high risk for divorce, job loss, and other stressful life events. Weary of the person's fatigue, hopeless attitude, and lethargy, a spouse may threaten to leave or a boss may begin to question the person's competence. (This provides another example of genetic-environmental interaction: People genetically predisposed to depression more often experience depressing events.) The losses and stress only serve to compound the original depression. Rejection and depression feed each other. Misery may love another's company, but company does not love another's misery.

We can now assemble some of the pieces of the depression puzzle (FIGURE 67.6): (1) Negative, stressful events interpreted through (2) a ruminating, pessimistic explanatory style create (3) a hopeless, depressed state that (4) hampers the way the person thinks and acts. This, in turn, fuels (1) negative, stressful experiences such as rejection.

None of us is immune to the dejection, diminished self-esteem, and negative thinking brought on by rejection or defeat. As Edward Hirt and his colleagues (1992) demonstrated, even small losses can temporarily sour our thinking. They studied some avid Indiana University basketball fans who seemed to regard the team as an extension of themselves. After the fans watched their team lose or win, the researchers asked them to predict the team's future performance and their own. After a loss, the morose fans offered bleaker assessments not only of the team's future but also of their own likely performance at throwing darts, solving anagrams, and getting a date. When things aren't going our way, it may seem as though they never will.

It is a cycle we can all recognize. Bad moods feed on themselves: When we *feel* down, we *think* negatively and remember bad experiences. On the brighter side, we can break the cycle of depression at any of these points—by moving to a different environment, by reversing our self-blame and negative attributions, by turning our attention outward, or by engaging in more pleasant activities and more competent behavior.

Winston Churchill called depression a "black dog" that periodically hounded him. Poet Emily Dickinson was so afraid of bursting into tears in public that she spent much of her adult life in seclusion (Patterson, 1951). As each of these lives reminds us, people can and do struggle through depression. Most regain their capacity to love, to work, and even to succeed at the highest levels.

Before You Move On**ASK YOURSELF**

Has your high school experience been a challenging time for you? What advice would you have for other students about to enter high school?

TEST YOURSELF

What is the most common psychological disorder? What is the disorder for which people most often seek treatment?

Answers to the Test Yourself questions can be found in Appendix E at the end of the book.

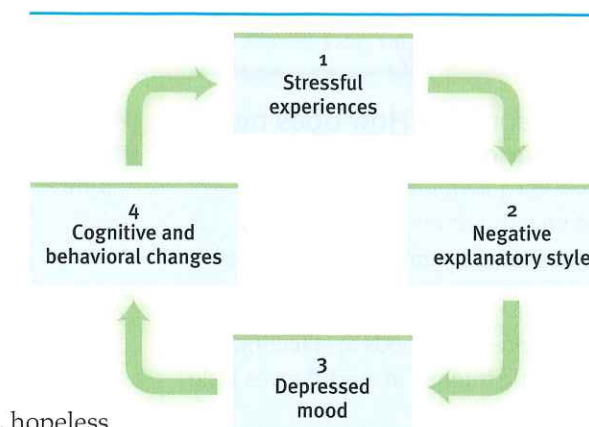


Figure 67.6

The vicious cycle of depressed thinking

Cognitive therapists attempt to break this cycle, as we will see in Module 71, by changing the way depressed people process events. Psychiatrists attempt to alter with medication the biological roots of persistently depressed moods.

"Some cause happiness wherever they go; others, whenever they go." -IRISH WRITER OSCAR WILDE (1854–1900)

Module 67 Review

67-1 What are mood disorders? How do major depressive disorder differ from bipolar disorder?

- *Mood disorders* are characterized by emotional extremes.
- A person with *major depressive disorder* experiences two or more weeks of seriously depressed moods and feelings of worthlessness, and takes little interest in, and derives little pleasure from, most activities.
- A person with the less common condition of *bipolar disorder* experiences not only depression but also *mania*—episodes of hyperactive and wildly optimistic, impulsive behavior.

67-2 How do the biological and social-cognitive perspectives explain mood disorders?

- The biological perspective on depression focuses on genetic predispositions and on abnormalities in brain structures and function (including those found in neurotransmitter systems).
- The social-cognitive perspective views depression as an ongoing cycle of stressful experiences (interpreted through negative beliefs, attributions, and memories) leading to negative moods and actions and fueling new stressful experiences.

Multiple-Choice Questions

- Which of the following is NOT a symptom of major depressive disorder?
 - Weight gain or loss
 - Auditory hallucinations
 - Sleep disturbance
 - Inappropriate guilt
 - Problems concentrating
- Which of the following is true of depression?
 - Depression usually develops during middle age.
 - Depression usually happens without major cognitive or behavioral changes.
 - A major depressive episode usually gets worse and worse unless it's treated.
 - True depression is usually not related to stress in one's work or relationships.
 - Compared with men, nearly twice as many women have been diagnosed with depression.

67-3 What factors affect suicide and self-injury, and what are some of the important warning signs to watch for in suicide-prevention efforts?

- Suicide rates differ by nation, race, gender, age group, income, religious involvement, marital status, and (for gay and lesbian youth) social support structure.
- Those with depression are more at risk for suicide than others are, but social suggestion, health status, and economic and social frustration are also contributing factors.
- Environmental barriers (such as jump barriers) are effective in preventing suicides.
- Forewarnings of suicide may include verbal hints, giving away possessions, withdrawal, preoccupation with death, and discussing one's own suicide.
- Nonsuicidal self-injury (NSSI) does not usually lead to suicide but may escalate to suicidal thoughts and acts if untreated.
- People who engage in NSSI do not tolerate stress well and tend to be self-critical, with poor communication and problem-solving skills.

- Which of the following is true of suicide?
 - Marijuana use is related to suicide, but alcohol use is not.
 - Women are more likely to end their lives than men.
 - Suicide is a bigger problem among the poor than the rich.
 - In the United States, suicide is more common among Whites than Blacks.
 - Married individuals are more likely to commit suicide than single people.

- Based on brain scans, which of the following is true of brain function and mood?
 - The brain is more active during manic episodes and less active during depressive episodes.
 - The brain is less active during manic episodes and more active during depressive episodes.
 - There is no consistent relationship between brain activity and mood.
 - The brain is more active than normal during both manic and depressive episodes.
 - The brain is less active than normal during both manic and depressive episodes.

Practice FRQs

- Christina became depressed after being laid off from her job. Her therapist thinks it's because she has a stable, global, and internal explanatory style. Illustrate each of these three attributes by writing a possible thought Christina might have for each one.

Answer

1 point: Stable thought (For example, "I have always had trouble holding down a job").

1 point: Global thought (For example, "Everything in my life is messed up").

1 point: Internal thought (For example, "It's all my fault I lost this job").

- Xavier, who has a negative explanatory style, is most likely to get depressed after failing a math test if he believes that he failed because
 - he is not good at math and never will be.
 - his teacher made it impossible to learn the material.
 - he was sick on the day he took the test.
 - his parents have been putting too much pressure on him and he panicked on the test.
 - the testing room was very hot and stuffy.

- Identify and describe the two major symptoms of bipolar disorder.

(4 points)