

# Chapter 1

## An Overview of Psychopathology

### Chapter Outline

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The book *A Beautiful Mind* describes the life and experiences of John Nash (Nasar, 1998). The book tells a powerful story and soon was made into a major Hollywood film that won the Academy Award for Best Picture of 2001. John Nash was, indeed, a remarkable figure, who received a PhD in mathematics from Princeton University and taught at both MIT and Princeton. In 1994, Nash won the Nobel Prize in economics for his work on game theory. From what I just told you, you probably assume that John

Nash had a very productive career, and in many ways he did. However, there was another aspect to John Nash's life that caused considerable distress to him and puzzlement to others. One day he walked into a room full of others in his department, held up a copy of the *New York Times*, and said to no one in particular that the story in the upper-left corner contained an encrypted message. Not only was it a message in code but it had been put there by inhabitants of another galaxy and he knew how to decode it (Nasar, 1998, p. 16). He was 30 years old at the time.

From that time on, there were times he was productive, but there were also times where he had disordered thoughts, mumbled to himself without thought of those around him, and experienced delusions of situations that did not exist. He felt there were indi-

viduals around him who put him in danger. He even wrote letters to officials in the U.S. government to suggest that these individuals were setting up alternative governments. John Nash suffers from schizophrenia.

Terri Cheney, who rose to success as an entertainment attorney in Beverly Hills, told of her experience of exceptional energy (Cheney, 2008). She described one time she was in Santa Fe, New Mexico:

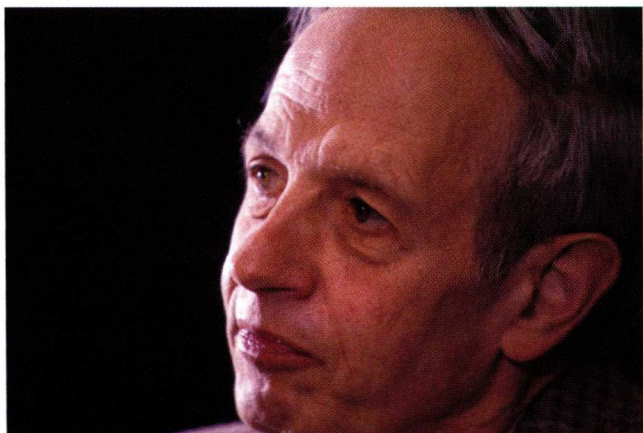
*The mania came in four-day spurts. Four days of not eating, not sleeping, barely sitting in one place for more than a few minutes at a time. Four days of constant shopping—and Canyon Road is all about commerce, however artsy its façade.*

She further described her experiences:

*Mostly, however, I talked to men. Canyon Road has a number of extremely lively, extremely friendly bars and clubs, all of which were in walking distance of my hacienda. It wasn't hard for a redhead with a ready smile and a feverish glow in her eyes to strike up a conversation and then continue that conversation well into the early-morning hours, his place or mine.* (pp. 6–7)

Excerpt from *Manic* by Terri Cheney. Copyright © 2008, 2009 by Terri Cheney. Reprinted by permission of HarperCollins Publishers.

Terri Cheney suffers from bipolar disorder, previously referred to as manic depression.



John Nash receiving his nobel prize in 1994

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Terri Cheney

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Mental disorders are part of our human condition. We have many names for these conditions. We speak of people with *mental illness*. For over a century, psychologists have studied these conditions in terms of **abnormal psychology**. Others have used the term **psychopathology**. This is in contrast with *pathophysiology*, or pathology of our physiology. Slang words such as *being crazy* or *nuts* have been around for hundreds of years. One of the oldest words is *insanity*, or *insane*, which comes from the Latin meaning “not healthy.” Mental disorders have been with us throughout our human history. Since the time that written language became a part of our experience, humans have included descriptions of mental disorders. We find such descriptions in Egyptian, Greek, Chinese, Indian, and other texts throughout our world history. Today, our films, novels, plays, and television programs often portray problems experienced by those with mental disorders.

The experiences of the individuals just described give us insights into the nature of mental illness. Terri Cheney told how she experienced great energy, which lasted for 4 days. Each described the experience of mental illness as something happening to them. In this sense, they did not feel they had an alternative way of acting. Thus, one important characteristic of mental illness is the lack of control over one's experience. This can also be described as a loss of freedom or an inability to consider alternative ways of thinking, feeling, or doing. Some individuals show this loss mainly in terms of emotional experiences as in the case of Terri Cheney with bipolar disorder. Others show the loss in terms of cognitive processes, such as the experiences of John Nash.

Another common theme seen in psychopathology is the loss of honest personal contact. Individuals with depression or schizophrenia often find it difficult to experience social interactions as experienced by other people. Just having a simple conversation or talking to clerks in stores may seem impossible. Mental illness not only affects individuals' interpersonal relationships with others but also their relationship with themselves, their intrapersonal relationship. When individuals with schizophrenia or depression talk to themselves, they often think negative thoughts about who they are and what will happen in the future.

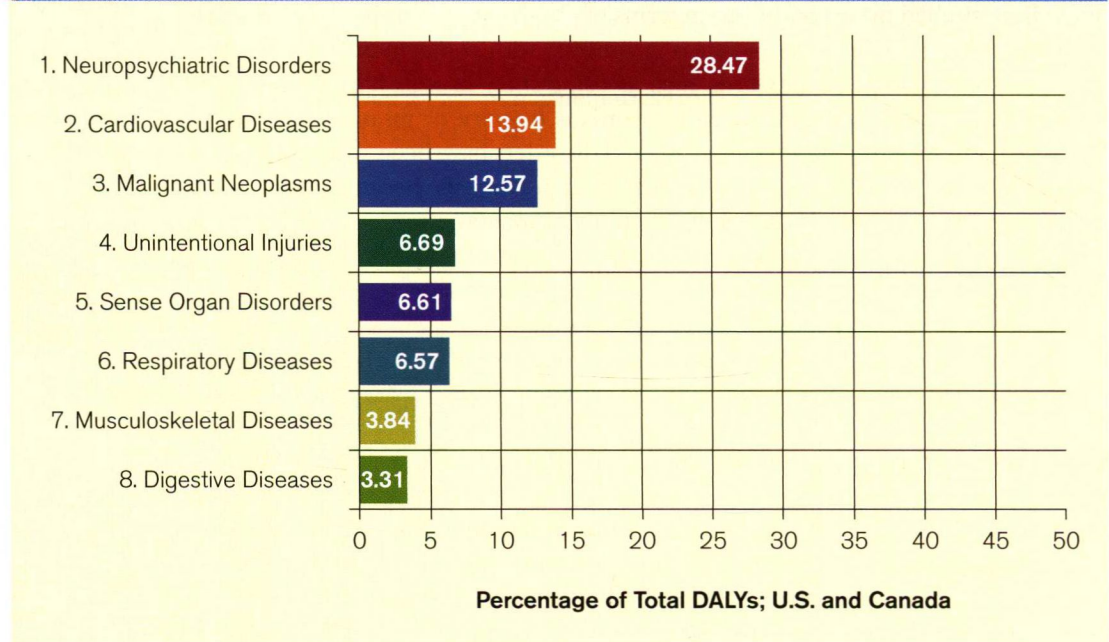
Additionally, in most cases, the experience of a mental disorder results in personal distress. Not being able to get out of bed, or feeling that a voice in your head is telling you that you are evil, or worrying that even a rice cake or an apple will make you fat all represent different degrees of distress. Thus, we can consider four important components in psychopathology. These are first, a loss of freedom or ability to consider alternatives; second, a loss of honest personal contact; third, a loss of one's connection with one's self and ability to live in a productive manner; and fourth, personal distress. As you will see with the disorders presented in this book, personal distress for a period of time is one of the criteria required for a diagnosis to be made.

Today, the National Institute of Mental Health (NIMH) estimates that at least 26.2% of the American population experiences a diagnosable mental disorder during a given year (<http://www.nimh.nih.gov/health/publications/the-numbers-count-mental-disorders-in-america/index.shtml>). Having a mental disorder results in lost productivity, lost personal enjoyment, and potentially even premature death. The World Health Organization (WHO) estimated that in the United States and Canada mental disorders cause a greater loss in what they refer to as disability-adjusted life years (DALY) than cardiovascular disease or cancer

**abnormal psychology:** the study of mental disorders; this includes psychological dysfunctions that the person experiences in terms of distress; a complete definition of abnormal behavior compares the behaviors and experiences in terms of those accepted in the person's culture

**psychopathology:** the study of mental illness; this is in contrast with pathophysiology, or pathology of our physiology



**Figure 1-1** Leading Contributing Disease Categories to DALYs

SOURCE: WHO; From [http://www.nimh.nih.gov/statistics/2LEAD\\_CAT.shtml](http://www.nimh.nih.gov/statistics/2LEAD_CAT.shtml)

(see Figure 1-1). DALYs represent the total number of years lost to illness, disability, or premature death.

With mental illness being so common, you might think that we as humans would have a complete understanding of the factors involved. However, this is not the case. We are not even sure how to refer to individuals with mental disorders. Are they abnormal? Depending on the reference group one uses, one can be normal or abnormal. Many famous artists such as the Impressionists had their work initially rejected because it did not fit into the standards of what was considered good art at the time. However, today we appreciate that these artists showed us another way of viewing the world. Likewise, many movies and music videos today would be rejected as not representing mainstream values at a previous time. Further, what would be acceptable in one culture might be seen as completely “crazy” in another.

## Stigma and Mental Disorders

Each of the individuals described in the initial vignettes of this chapter not only has a mental disorder but also has had personal and professional success. As you will see throughout this book, experiencing a mental illness does not mean that one has to live a limited life. These individuals not only have productive careers such as being a writer, lawyer, college professor, or executive but also have successful personal relationships. However, many children, adolescents, and young adults with a mental illness report being told they could never perform in a high-level profession or have the types of relationships that others have.

There is often a **stigma** experienced by those with a mental disorder. Historically, stigma has been defined as a mark of disgrace associated with a particular person. In psychological terms, stigma involves negative attitudes and beliefs that cause the general public to avoid others including those with a mental illness. Throughout the world, those with mental illness experience stigma. In many cultures, they are seen

**stigma:** negative attitudes and beliefs that cause the general public to avoid others including those with a mental illness



(Continued)

not care for themselves. However, there is also a tradition in America related to our settlement of the vast lands, which pioneers found before them. This is represented by the pioneer or cowboy spirit in which we support the individual's right to do what he or she wants and to live the type of life desired.

As Americans, we have contradictory attitudes toward mental illness. In terms of treatment, 94% of Americans believe that treatment can help people with mental illness lead normal lives. This might lead you to believe that society would encourage treatment of mental illness and reduce any stigma to seeking help. However, it is estimated that only about 20% of those with a mental disorder actually sought help in the prior year. This may have resulted from embarrassment or an attempt to hide the condition from others. This leads to less treatment and may, in turn, affect work and life opportunities. The attempt to hide mental problems may also reflect a reality as only around 60% of Americans believe that people are generally caring and sympathetic to people with mental illness.

The picture becomes more complicated when we realize that in any given year about one fourth of all adult Americans have a mental disorder, including anxiety, depression, and substance abuse. Emotional problems and psychological distress are also experienced by those with chronic physical conditions such as arthritis, cancer, diabetes, and cardiovascular problems. Given the large number of individuals experiencing different types of emotional problems and psychological distress, you might expect that these conditions would be more accepted. However, stigma and negative attitudes toward mental illness are common in the United States.

The dynamic tension between taking care of others and being independent becomes clear when we see homeless individuals in our community who have a mental illness. This raises a number of questions. Can we take these individuals off the street if they don't want to be taken to a shelter? Can we force them to take their medication if this would help them function better in our community but they do not want the medication? Should it be the police or health care workers that work with these individuals? In the final chapter of this book, which focuses on legal and ethical issues and mental health, you will see a number of these questions being considered.

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Data presented are available in Centers for Disease Control and Prevention (CDC) (2012).

## Different Conceptions of Mental Illness

At one time in our history, professionals made a sharp distinction between physical disorders and mental disorders—physical disorders involved the body and mental disorders involved the mind. Today we have come to see the close connection of the brain with what was previously considered mental processes. Mental disorders are brain disorders. Further, those physiological processes involved in physical disorders such as the immune system, the turning on and off of genes, and the chemical processes of the body are also equally involved in mental disorders.

In this book, I will use the terms *psychopathology*, *mental disorders*, or *mental illness* to refer to those disorders traditionally described in scientific and professional research and practice. *Psychopathology* is the word commonly used in the



neurosciences and the one you would want to use when performing literature searches in research and clinical journals. *Abnormal psychology* as a research area has a long tradition in psychology, and I will refer to this tradition by that term.

Within psychology, *The Journal of Abnormal Psychology* was once *The Journal of Abnormal and Social Psychology*. This reflected both practical issues and the overlap of interests. For example, topics such as personality were of interest to both social psychologists and clinical psychologists. Also, understanding normal social functioning helped to clarify the manner in which various psychopathologies interfere with human interactions. Many disorders I will describe in this book are characterized by problems in social relationships and their components.

If we think about our social relationships, we realize that there are a variety of levels that help us to understand our experiences. Part of our reactions may relate to people we have known personally in the past. Part of our reactions may be related to what we have learned to value from our culture. If we realize that humans throughout our history have always lived in groups, then we might see an even larger perspective that would be related to the evolutionary development of humans. Part of this perspective is that we not only pay attention to our own experiences but also try to understand the experiences of others. These are part of the everyday interactions that we all go through.

What do you do when you meet someone for the first time? Most people make a quick assessment about that person. Are we attracted to that person, or do we find ourselves moving away from him? Sometimes we don't even realize we make the judgments that we do. Social psychology research has shown us that we are quick to see others who are like us as attractive and those not like us as unattractive. If the person makes us laugh and feel good, we continue to interact with them. If the person scares us, we move away quickly. If the person treats us in a way we don't like, we may even get angry.

In meeting individuals with mental disorders, we may be unsure of how to react, and stigma can become a problem. If stigma leads to problems with finding jobs or places to live, then individuals with mental disorders have an even more difficult time being part of a community. As you will see in the next chapter, those with mental disorders have been treated differently throughout history.

## The Three Major Themes of This Book

In this book, there are three major themes I will explore.

The first theme takes a **behavioral and experiential perspective** and relates to the behavior and experience observed in psychopathology. In this theme, I will examine current ways of classifying and describing abnormal behavior. I also want you to consider the experience of having a psychological disorder and will present first person reports from individuals with particular disorders. We will also discuss symptoms and signs. Traditionally, symptoms, such as feeling sad, are seen as subjective, which the individual reports to a professional, whereas signs, such as having a fever, are an objective process that can be measured and would be apparent to a professional. An important aspect of this perspective is the manner in which the signs and symptoms of a particular disorder are seen in a similar manner throughout the world. The universality of mental disorders has been an important consideration for scientists. It is also important to note the role culture plays in the manifestations of behaviors and experiences related to psychopathology.

## Concept Check

- What are the impacts of mental illness in the United States in any given year?
- Describe the dynamic tension in American attitudes toward mental illness.

**behavioral and experiential perspective:** examines the behavior and experience observed in psychopathology, especially the manner in which the signs and symptoms of a particular disorder are seen in a similar manner throughout the world



**neuroscience perspective:**

examines what we know about particular psychopathological experience from the standpoint of neuroscience, including the structure and function of the brain, the autonomic nervous system, and a genetic and epigenetic consideration as it relates to psychopathology

**evolutionary perspective:**

examines psychological disorders in terms of how certain ways of seeing or being in the world might be adaptive, asking if there is any advantage to behaving and feeling in certain ways that others consider abnormal or if the disordered behavior is secondary to another process that is beneficial

**levels of analysis:** examination of psychopathology ranging from culture and society at a higher level to the individual at a middle level and physiology and genetics at the lower levels

The second theme examines what we know about particular psychopathological experience from the standpoint of a **neuroscience perspective**. In particular, I will emphasize the structure and function of the brain as it relates to psychopathology. With the advent of neuroscience techniques such as brain imaging, it is becoming clear that mental disorders are also brain disorders. In fact, with every disorder we will consider in this book, it is possible to examine the manner in which the structure and function of the brain is changed. The neuroscience perspective will also help us to consider how certain disorders share a similarity in underlying brain processes. For example, knowing that the same brain networks involved in physical pain are also involved in social rejection help us understand the experience of each and how they are like one another.

The third theme asks a much broader scientific question and examines psychological disorders from an **evolutionary perspective**. In adopting this perspective, we can think about how certain ways of seeing or being in the world might be adaptive. Being afraid of heights, for example, keeps us from taking unnecessary risks. We can ask if there is any advantage to behaving and feeling in certain ways that others consider abnormal. We can also ask if the disordered behavior is secondary to another process that is beneficial. This could include an attempt by our body to protect itself.

Let's look at the ways a disorder may be protective. One classic example is the blood disorder sickle-cell anemia. Although the genetic disorder sickle-cell anemia can cause a variety of physiological problems, its presence also confers a resistance to malaria. Thus, having one disorder may be protective of another. Sickle-cell anemia is most often seen in individuals whose ancestors lived in parts of West Africa, low-land regions of Sicily, Cyprus, Greece, the Middle East, and India. Since this is where malaria exists, it is assumed that its presence evolved as a result of natural selection.

In the same way that we know that having a fever is protective and beneficial to recovering from sickness, we can look for similarities in psychological disorders. We can also ask questions concerning why particular disorders continue to exist. Individuals with schizophrenia, for example, generally have fewer children than those without the disorder. Thus, you might expect that schizophrenia would have gradually disappeared over our evolutionary history through the production of fewer children with the genetics related to the disorder. However, this is not the case, and in fact, schizophrenia occurs in approximately the same percentage (1% of the population) throughout the world in both developed and developing countries. As I will discuss in more detail later in this book, this suggests that schizophrenia is an old disorder that has existed since humans migrated out of Africa some 80 to 100 thousand years ago. It also suggests that the multiple genes associated with schizophrenia may be associated with more positive human traits such as creativity.

In summary, the three themes—behavior and experience, neuroscience, and the evolutionary perspective—give us important perspectives for thinking about psychopathology.

## Levels of Analysis

### Concept Check

- How has the relationship between physical disorders and mental disorders changed historically?
- Identify the three major themes this book takes in regard to psychopathology.

As we explore together the themes of behavior and experience, neuroscience contributions, and evolutionary perspectives as related to psychopathology, you will see that we will move across a variety of **levels of analysis** ranging from culture to genetics. Higher-level understandings include culture and society as well as our social relationships. From there, we can look



at what makes up the social level as well as the individual level, which includes our actions and our experiences. We can then ask what makes up the individual in terms of sensory, motor, emotional, and cognitive systems. We can examine each of these levels as they influence our behavior and experience. From there, we can ask how each of these systems works and look at the physiological processes that make up our central and peripheral nervous systems. This will take us to the cortical network level, and we will see how neurons and their connections form the basis of information transfer and processing. The most basic level we will be introduced to in this book is the genetic level, which in turn will require us to understand how environmental conditions influence genetic processes. We will also learn about a related process, epigenetics, in which genes can be turned on or off by the environment and these mechanisms can be passed on to future generations without actually changing the basic genetic structure. These levels are depicted in the photos and illustrations beginning on this page.

In order to help focus their work, scientists often focus primarily on one of these levels of analysis. However, in this book I want to consider a more integrative approach that draws on a number of these levels. Further, you should not take any one of these levels of analysis as more important or truer than another. A similar plea was made by George Engel in 1977 when he helped to develop the biopsychosocial approach to understanding mental illness (Engel, 1977).

## Biopsychosocial Approach

In a paper in the scientific journal *Science*, George Engel introduced the term *biopsychosocial*. He suggested that those with mental illness or even a medical disorder should not be understood from only a biological perspective. Diabetes is a disorder, but it is also related to how the person eats and exercises. Likewise, depression and anxiety can be influenced by social and emotional factors. Thus, it is necessary to see the signs and symptoms of the disorder in a larger context. Otherwise, one has a limited perspective that ignores the social, psychological, and behavioral dimensions of any disorder. Thus, as a mental health professional, you would want to know more about an individual than just the symptoms that the person describes. This could be his or her family life, work conditions, and cultural practices as well as eating habits and how the person exercises. As you will see in this book, since the 1970s researchers have come a long way in understanding how various levels ranging from genetics to culture interact with each other in a complex manner. Let us now begin with a consideration of culture over our longer evolutionary time that will take us to an understanding of behavior and experience on a number of levels. In later chapters, I will introduce you to additional levels of analysis.



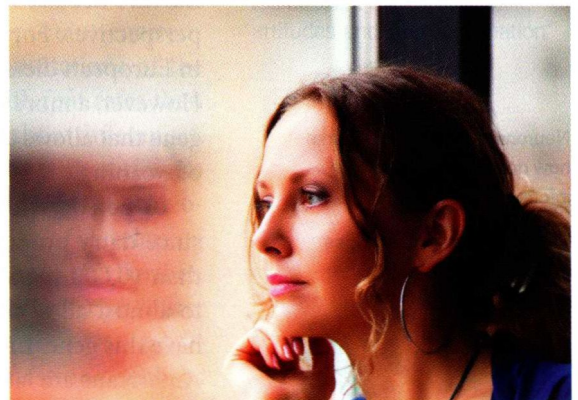
Culture—how are we a part of culture, and what is its influence?

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Social relationships—how do we relate to others?

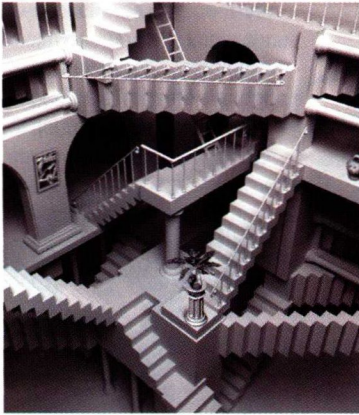
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Individual—how do we relate to ourselves in terms of behavior and experience?

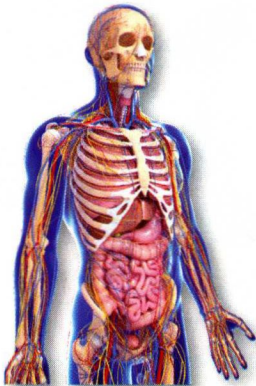
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Cognitive, emotional, motor, and instinctual processes—how do we perceive and understand our internal and external relationship with our environment?

© Istockphoto/billyfoto



Physiological processes of the central and peripheral nervous systems—how does our body work?

© Istockphoto/billyfoto

Neurons and cortical networks—how does our brain process information?

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## The Relation of Evolution and Culture to Psychopathology

Considering psychopathology from evolutionary and cultural perspectives goes beyond the traditional psychological and physiological considerations (Ray, 2013). These perspectives make us realize that for at least the last 100,000 years humans have been social beings who have lived within the context of a group in which there were interactions related to gathering and preparing food, having sexual relations, and being part of a community. Cultures developed from this.

From the **cultural perspective**, current views of culture emphasize the social world in which a person lives (López & Guarnaccia, 2000). In this sense, culture can be viewed as “information capable of affecting individuals’ behavior that they acquire from other members of their species through teaching, imitation, and other forms of social transmission” (Richerson & Boyd, 2005). From this perspective, culture can be seen as a system of inheritance. Humans learn a variety of things from others in their culture including skills, values, beliefs, and attitudes. Historically, parents and others taught children how to perform particular jobs such as farming, toolmaking, hunting, and performing other skills. Human culture has also formalized learning in the form of schools and apprenticeships. Cultures also differ in their level of economic development and the amount of resources they devote to mental health. In the following LENS on page 12, the availability of mental health professionals across the world is described.

For a more complete understanding of psychopathology, it is important to understand the particular rules a culture has for expressing both internal experiences and external behaviors (see Marsella & Yamada, 2007, for an overview). What may be a common experience in one culture may lead to stress and anxiety in another. Even what individuals tell themselves about having a mental disorder can vary from culture to culture. Likewise, artistic and spiritual experiences considered normal in one group may be considered “crazy” in another.

Historically, a simplistic view of culture has emphasized how each culture is locally determined, without reference to universal psychological processes. When universal ways of behaving, feeling, or thinking are suggested, this view assumes that this information is acquired by social learning. Although this is an important aspect of culture, this emphasis will quickly lead you into the outdated nature–nurture debate, which lacks the insights of modern evolutionary and neuroscience perspectives. For example, consider the question of why foods with milk are found in European diets and not in Asian diets. One answer could be cultural preferences. However, a more complete answer includes the fact that Northern Europeans have a gene that allows them to continue digesting milk products after the traditional time of weaning.

A person with such a gene would have had an advantage in Northern Europe since dairy products are a high quality food source, and over time—probably less than 10,000 years—that advantage would have allowed these genes to be passed on to almost all of the European population. Today, 98% of all individuals in Sweden have this gene. In the United States, with its large European migration, 88% of white Americans are lactose tolerant. Native Americans on the other hand are not lactose tolerant. Overall, this suggests a close connection between cultural and evolutionary perspectives.

The picture becomes even more complicated in terms of psychological processes. There is a particular form of a gene (5-HTT) related to the neurotransmitter



serotonin, which is associated with being prone to develop higher levels of anxiety and depression. When its occurrence is examined cross-culturally, studies have shown that 70% to 80% of Japanese individuals carry this gene whereas only 40% to 45% of Europeans carry it (see Ambady & Bharucha, 2009, for an overview). Likewise, brain imaging studies have shown that cultural values can influence which areas of the brain are active during self-evaluation (see Chiao, 2011, for an overview).

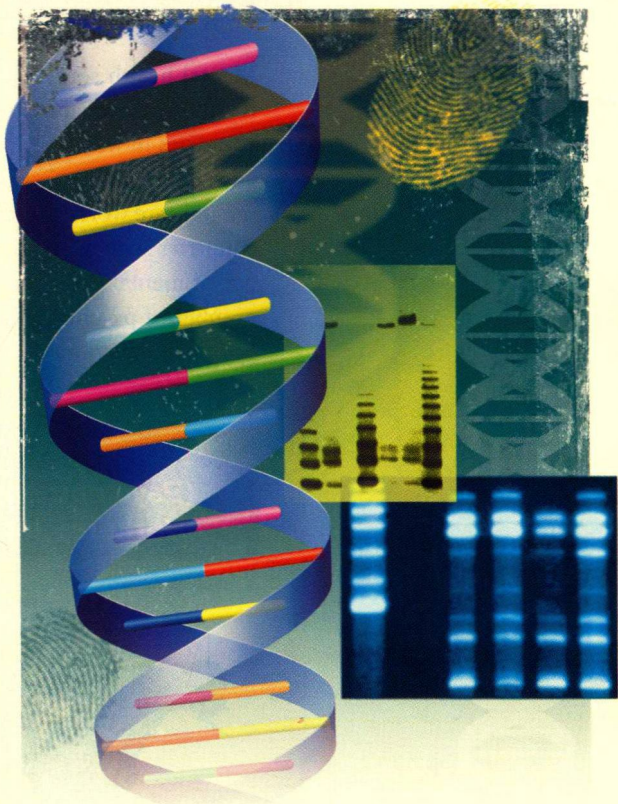
The larger question raised by these studies is whether this genetic variation influences the manner in which cultural structures formalize social interactions and how this might be related to what is considered mental illness. That is, a society that has more individuals who are prone to anxiety may develop different forms of social interaction than one that does not. Not only can the environment influence genetics but genetics can influence culture. This work is just beginning to be applied to viewing psychopathology from a cultural standpoint.

Considering how a condition such as lactose tolerance is found in some groups of individuals around the world and not in others gives us additional insights into when this condition may have developed. Since lactose tolerance is not found throughout the world but is limited to one group, one would assume that it was not part of the human condition when humans migrated out of Africa some 100,000 years ago. We can ask similar questions in terms of psychopathology. One question might be how long, in terms of our human history, a particular psychopathology has existed.

Let's take schizophrenia as an example. A WHO study examined the presence of schizophrenia in a number of countries with very different racial and cultural backgrounds (Sartorius et al., 1986). If schizophrenia had an important environmental component, then you would expect to see different manifestations of the disorder in different cultures. Developed countries would show different rates than nondeveloped countries. Areas with different climates might also show differences, as is the case with multiple sclerosis. What these authors found was that, despite the different cultural and racial backgrounds surveyed, the experience of schizophrenia was remarkably similar across countries. Likewise, the risk of developing schizophrenia was similar in terms of total population presence—about 1%. Further, the disorder had a similar time course in its occurrence with its characteristics first being seen in young adults.

The evolutionary and cultural perspectives help us ask questions such as what function a disorder might serve, as well as how it came about. For example, humans fear animals they have little contact with but do not fear more likely causes of danger such as automobile accidents. Likewise, rejecting a food for years that once made us sick does not seem logical. This is particularly true in a

## Figure 1-2 Genetic—What Are the Possibilities of Our Structure and Experience?



SOURCE: Thinkstock/photos.com.

**cultural perspective:** examines the social world in which a person lives and from which a person learns skills, values, beliefs, attitudes, and other information

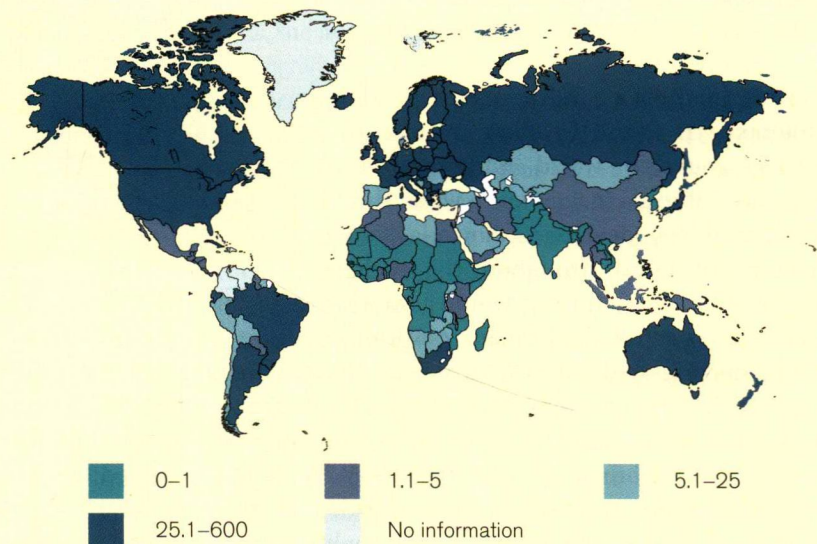




## 1-2 LENS: Global Mental Health: Available Treatment

Mental health services are available worldwide. However, they differ by country in how available they are as well as the nature of the services offered. In countries in which individuals have a higher income, such as the United States, Canada, England, Germany, France, Japan, and Australia, there are many more mental care workers such as psychologists and psychiatrists than in low-income countries such as India, China, and much of Africa. *Figure 1-3* shows the number of mental health professionals throughout the world. This map shows the number of psychiatrists, psychologists, nurses, and social workers per 100,000 people in the country.

**Figure 1-3 Human Resources for Mental Health (Psychiatrists, Psychologists, Nurses, and Social Workers) per 100,000 Population**

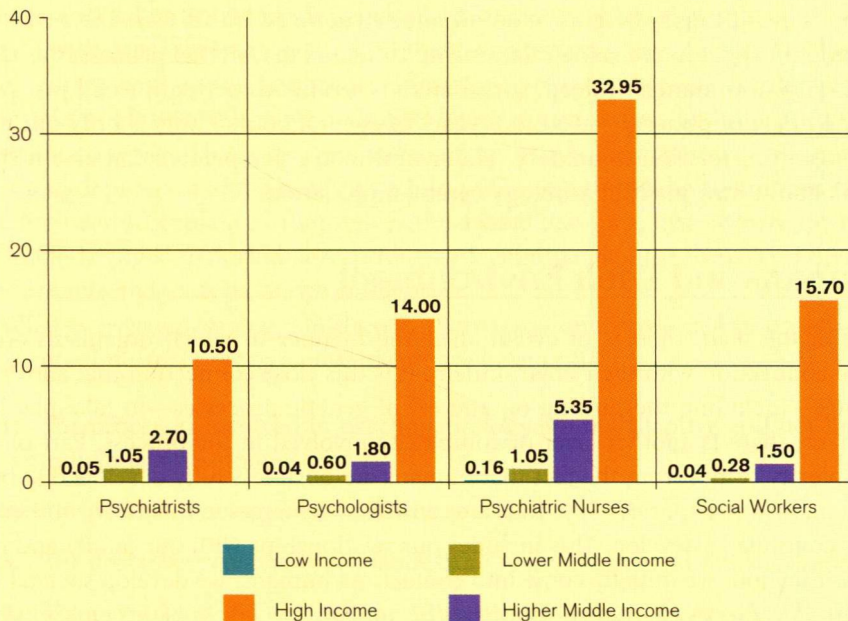


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High-income countries have the greatest number of mental health professionals and low-income countries the least. *Figure 1-4* shows the number of psychiatrists, psychologists, nurses, and social workers by income level. The governments of about one third of all countries do not have a specific budget for mental health. In many countries, informal networks of families, friends, and other social networks are utilized to care for those with mental illness.



**Figure 1-4 Human Resources in Terms of Mental Health Professionals in Each Income Group of Countries per 100,000 Population**



Reprinted from *The Lancet*, Vol. 370, Shekhar Saxena, Graham Thornicroft, Martin Knapp, and Harvey Whiteford, *Global Mental Health 2 Resources for Mental Health: Scarcity, Inequity, and Inefficiency*, p. 880. Copyright © 2007, with permission from Elsevier.

time of food safety conditions available in most developed countries, but it is a common experience. Of course, both experiences make sense if we consider our long evolutionary history.

Considering how many human processes evolved, it is clear that few of the environments in which we live today conform to the environment in which humans developed. Unlike other species, humans live in environments that are different in many respects from those that shaped our early evolutionary history. We have developed large cities and the technological abilities to communicate instantly around the planet. We have also developed ways to mitigate conditions such as the weather that would have played a greater role in our lives thousands of years ago. Compared with other species, humans live less in nature and more in culture. However, it is important in considering psychopathology to remember the environment in which humans as a species developed. John Bowlby (1969) referred to the environment found in our early evolutionary history as the environment of evolutionary adaptedness.

In thinking about our evolutionary history, we can consider how one basic human process developed in relation to an earlier one. For example, in the same way that pain can be seen as a warning system to the body to protect it from



tissue damage, anxiety may have evolved to protect the individual from other types of potential threats. In fact, an evolutionary perspective has helped to determine that social processes such as feeling rejected use similar brain circuits as those involved in physical pain. Further, many of the outward expressions of social anxiety parallel what is seen in dominance interactions in primates. Submissive monkeys avoid contact with most dominant ones as do individuals experiencing social anxiety. Thus, one hypothesis would be that anxiety may have its evolutionary origins in dominance structures. If this were the case, then we might expect to see some relationship to sexual instinctual processes as is the case with dominance. Indeed, social anxiety begins to be manifested just prior to the onset of puberty—around 8 years of age. Of course, this is only one consideration in relation to anxiety. The evolutionary perspective can also help us think about how psychopathology can be understood.

## Humans and Their Environment

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One of the main themes of evolution is the manner in which organisms are in close connection with their environment. It is this close connection that allows for change—including the turning on and off of genetic processes—to take place. In humans, there is another layer of complexity involved in the process. Part of this complexity comes from the fact that humans are born less fully developed at birth than many other species—and thus are sensitive to changes in their environment as they continue to develop. This includes our relationships with our family and others with whom we initially come into contact. As humans, we develop societal and cultural perspectives. These perspectives become the backdrop of our environment. Unlike animals that live within nature, we as humans largely live within the backdrop of our culture. Another part of the complexity with humans is our ability to reflect on ourselves and our world. In this way, a layer of thought can be injected between the person and the environment. This allows for expectation and even imagination to play a role in human behavior and experience.

We live in a way that keeps us in close contact with others and with our environment. You wear a coat when it is cold or call a friend when you are lonely. What I want to do in this book is to consider what happens when our interactions with others and with our environment lose this close connection. On an experiential level, we may feel isolated and lonely. In more severe situations, we can experience the exaggerated feelings and distorted thoughts that do not fit the situation in which we live. There are a variety of ways that our close connections can be lost. In some cases, genetic and environmental processes lead to this close connection not developing in the first place. In other cases, the connection develops but becomes broken through a variety of factors including trauma. These experiences and behaviors mark the content area of psychopathology.

Humans not only consider themselves; they also consider others. A positive side of this, as noted previously, is the ability to understand the internal experiences of another. This allows us to experience empathy. We can also consider how we appear to others and other questions of self-image. One aspect of this is related to the sexual instinct. That is, we can say or do things that make us more attractive to a potential mate. In terms of self-preservation, humans also have a personal history that allows each person to learn from the past and develop strategies for living life. These strategies tend to protect us, and even may have saved our lives in exceptional cases.



However, it is also possible for the strategies that work in one environmental situation not to work in another. When a person loses contact with the current environment and applies strategies that worked perhaps in an earlier time, then unsuccessful adaptation is the result. This lack of connectedness to our environment may take place on both external and internal levels. On an external level, the person finds himself or herself different from the group or even seeks to be separate from others. As humans, this is not our historical experience—humans have never lived as isolated individuals. As a species we have always lived in close contact with other humans, leading to the development of societies and cultures. In fact, many of the specific abilities of humans are geared to social interactions on a variety of levels. When we no longer have the connection with the group, we experience a sense of loss. This loss often carries with it the experience of negative affect and depression and a need to withdraw. On an internal level, humans often have the need to explain to themselves the events that have just occurred, which may include anger, distorted perceptions, or a genuine plan for recovery. Extreme cases are referred to as psychopathological.

What is psychopathology? Although there is no one single definition of what represents abnormal processes, five ideas have been critical.

1. The processes involved in psychopathology are maladaptive and not in the individual's best interest.
2. The processes cause personal distress.
3. The processes represent a deviance from both cultural and statistical norms.
4. The person has difficulty connecting with his or her environment and also with himself or herself.
5. There is an inability of an individual with a mental disorder to fully consider alternative ways of thinking, feeling, or doing. That is to say, such individuals often do not see, feel, or think there are alternatives. This results in their psychological processes being rigid and patterned. Having fewer alternatives also suggests that they have less freedom in any given situation.

## Is Psychopathology Universal?

If psychopathology is part of our human makeup, then we expect to see similar manifestations of it worldwide. One classic study in this regard was performed by Jane Murphy (1976) of Harvard University. It dates from the 1970s when mental illness was considered to be related to learning and the social construction of norms. In fact, some suggested that mental illness was just a myth developed by Western societies. In this perspective, neither the individual nor his or her acts are abnormal in an objective sense. One important implication of this view was that what would be seen as mental illness in a Western industrial culture might be very different from what was seen as mental illness in a less developed rural culture. That is to say, mental illness in this perspective was viewed

### Concept Check

- Identify seven of the levels of analysis presented for studying psychopathology. Which is the most important?
- Is the nature–nurture debate outdated? What evidence would you cite to characterize the relationships among genetics, culture, and the environment in human development?



as a social construction of the society. The alternative to this perspective is more similar to other human processes such as emotionality, in which humans throughout the world recognize similar expressions of the basic emotions. If mental illness is part of our human history, as evolutionary psychologists would suggest, then we would expect to find similar manifestations across a variety of cultures.

Dr. Murphy first studied two geographically separate and distinct non-Western groups: the Eskimos of northwest Alaska and the Yorubas of rural tropical Nigeria. Although many researchers of that time would have expected to find the conceptions of normality and abnormality to be very different in the two cultures, this is not what she found. She found that these cultures were well acquainted with processes in which a person was said to be out of their mind. This included doing strange things as well as hearing voices. Jane Murphy concluded that processes of disturbed thought and behavior similar to schizophrenia are found in most cultures and that most cultures have a distinct name in their language for these processes. Additionally, she reported that these cultures had a variety of words for what traditionally is referred to as neurosis although today we would refer to these as affective disorders. Affective disorders include feeling anxious, tense, and fearful of being with others as well as being troubled and not able to sleep. One Eskimo term was translated as worrying too much until it makes the person sick. Thus, it appears that most cultures have a word for what has been called psychosis, what has been called neurosis, and what has been called normalcy. What is also interesting is that many cultures also have words for describing people who are out of their mind but not “crazy.” These would be witch doctors, shamans, and artists.

To add evidence to her argument that psychopathology is indeed part of our human nature, Murphy also reviewed a large variety of studies conducted by others that looked at how common mental illness was in different cultures. The suggestion here is that if its prevalence is similar in cultures across the world then it is more likely to be part of the human condition rather than culturally derived. What these studies suggest is that many forms of mental illness such as schizophrenia are found at similar rates the world around. Overall, this research established that mental illness was not a created concept by a given culture but rather part of the human condition in both its recognition and its prevalence. However, culture will play a role in how it is manifested in the larger community.

## Experiential Perspective

One important aspect for a complete understanding of psychopathology is the experiential perspective—how the individual with the disorder experiences it and sees the world. At the beginning of many of the chapters of this book, you will read first person accounts from individuals with particular disorders. As you will see,

sometimes the experience of the person may result from the personal distress related to the disorder or the inability to relate to others. Sometimes the experience may be the result of reduced capacity as in the inability to consider alternative ways of acting or thinking or feeling. Other times, the experience may be of non-normal reality as when hearing voices in one's head or seeing things not seen by others. Recently, there has been an attempt to better document the experience of mental illness.

## Concept Check

- Is psychopathology universal? What kinds of evidence show that it is? What evidence is there for cultural differences in psychopathology?
- How does reading about the experiences of individuals with mental illness inform our understanding of the nature of psychopathology?



For example, the scientific journal *Schizophrenia Bulletin* has begun to publish first person accounts of individuals with schizophrenia. Likewise, a number of highly successful individuals with particular disorders have published detailed accounts of their experiences. I will draw upon these sources throughout this book.

## Plan of the Book

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In the next chapter, I will introduce you to the historical manner in which psychopathology has been viewed and treated. Following that, I will introduce you to some of the ways scientists research psychopathology and the types of neuroscience measures and research methods they use. I will then introduce you to ways in which psychopathology is assessed and classified. In the United States, the criteria for the diagnosis of mental illness are denoted in the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* published by the American Psychiatric Association (APA). The current version is *DSM-5* (APA, 2013). I will introduce you to these criteria throughout this book in the order similar to how they are presented in *DSM-5*.

## Summary

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Three major themes—behavior and experience, neuroscience, and the evolutionary perspective—give us important perspectives for thinking about psychopathology. In addition, an integrative perspective ranging across a number of different levels provides a greater understanding of psychopathological processes. These levels range from the highest levels of environment, culture, and society to social relationships to individual behavior and experience to our sensory, motor, emotional, and cognitive systems to the physiological processes that make up our central and peripheral nervous systems to the cortical network level to the most basic level of genetics and epigenetics. The genetic level in turn takes us back up to the highest level to understand how environmental conditions influence genetic processes.

Considering psychopathology from evolutionary and cultural perspectives goes beyond the traditional psychological and physiological considerations. Culture can be seen as a system of inheritance—humans learn a variety of things from others in their culture including skills, values, beliefs, and attitudes. For a more complete understanding of psychopathology, it is important to understand the particular rules a culture has for expressing both internal experiences and external behaviors. Overall, research suggests a close connection between cultural and evolutionary perspectives. Not only can the environment influence genetics; genetics can in turn influence culture. The evolutionary and cultural perspectives help us ask questions such as these: (1) Can genetic variation influence the manner in which cultural structures formalize social interactions and how this might be related to what is considered mental illness? (2) How long, in terms of our human history, has a particular psychopathology existed? (3) What function might a disorder serve and how did it come about? (4) How can a basic human process (e.g., the pain of social rejection) develop in relation to an earlier one (e.g., the brain circuits involved in physical pain)?

One of the main themes of evolution is the manner in which organisms are in close connection with their environment. It is this close connection that allows for change—including the turning on and off of genetic processes—to take place. Humans are born less fully developed at birth than many other species and thus are sensitive to changes in their environment as they continue to develop. Unlike animals that live within nature, humans largely live within the backdrop of our culture.



Another part of the complexity with humans is our ability to reflect on ourselves and our world. In this way, a layer of thought, including expectation and imagination, is injected between the person and the environment.

Five ideas are critical to the concept of psychopathology. First, the processes involved are maladaptive and not in the individual's best interest. Second, these processes cause personal distress. Third, the processes are considered to be deviant from cultural and statistical norms. Forth, the individual has difficulty connecting with his or her environment and also with himself or herself. Finally, the individual is not able to consider alternative ways of thinking, feeling, or doing.

## STUDY RESOURCES



### Review Questions

1. Why do stigmas arise in regard to mental illness? What impacts do stigmas have on individuals with psychopathology as well as their families, communities, and society as a whole?
2. Three major themes—behavior and experience, neuroscience, and the evolutionary perspective—are presented as giving us important perspectives for thinking about psychopathology. What are some of the ideas each of these perspectives offers?
3. What levels of analysis are important to consider in understanding psychopathology? What are the advantages of considering multiple levels and taking an integrated approach?
4. This chapter states that “considering psychopathology from evolutionary and cultural perspectives goes beyond the traditional psychological and physiological considerations.” What arguments does the author put forth to explain the importance of these two perspectives in asking critical questions that need to be answered? Do you agree?
5. What are the five critical characteristics to be included in answering the following question: What is psychopathology?



### For Further Reading

Cheney, T. (2008). *Manic*. New York: William Morrow.

Kottler, J. (2006). *Divine madness: Ten stories of creative struggle*. San Francisco: Jossey-Bass.

Nasar, S. (1998). *A beautiful mind*. New York: Simon & Schuster.



### Key Terms and Concepts

abnormal psychology  
behavioral and experiential  
perspective

cultural perspective  
evolutionary perspective  
levels of analysis

neuroscience perspective  
psychopathology  
stigma



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