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精神病学概要

Review of General Psychiatry

第 5 版

Howard H. Goldman



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Review of General Psychiatry

fifth edition

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Review of General Psychiatry, Fifth Edition

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Preface

Review of General Psychiatry, 5th edition, is designed for medical students—for course adoption, to supplement course syllabus materials, to complement readings in the literature, and to use as a companion text with more comprehensive works. Written by psychiatric educators, this text serves the needs of medical students in most settings. In addition, it can serve as a review text for psychiatric residents and other trainees, and as a reference for physicians and other health professionals.

Psychiatry is a discipline of observation and probing inquiry, a basic science of behavior, and a clinical science of mental disorder and emotional responses to physiological change, somatic illness, and life events. Critics in neuroscience characterize psychiatry as brainless; critics within psychological medicine fear that psychiatry will become mindless. Students everywhere are concerned that the medical curriculum not be witless. Our aim is to present psychiatry with the proper mix of brain, mind, and wit.

NEW TO THIS EDITION

This edition welcomes 15 new authors, many of whom are co-authors working with contributors to earlier editions of *Review of General Psychiatry*.

Seven chapters have been extensively revised:

Neurochemistry in Psychiatry
Social & Cultural Aspects of Health, Illness, & Treatment
Dementia, Delirium, & Amnestic Disorders
Schizophrenic Disorders
Somatoform & Dissociative Disorders
Childhood Mental Disorders & Child Psychiatry
Somatic Therapies

CONTINUING FEATURES

- Material on basic biological and psychosocial science as well as clinical material on diagnosis and treatment.
- Full range of disorders with complete diagnostic criteria as described in the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth edition (*DSM-IV*).
- Updated neuroscience and psychopharmacology.
- Clinical vignettes illustrating the features of most mental disorders and comprehensive clinical assessment.
- Glossary of psychiatric signs and symptoms.
- Six chapters on psychiatric assessment.
- Diagnostic and treatment algorithms.
- Consistent, readable format, permitting efficient use in multiple clinical settings.
- Selected references for further investigation.
- Information useful to the nonpsychiatrist physician and the medical student and resident in psychiatry.

ACKNOWLEDGMENTS

Review of General Psychiatry represents more than the work of its title page editor and its named contributors. I would like to acknowledge the assistance of other contributors to our text.

Although the fifth edition bears little resemblance to the original course materials prepared at UCSF prior to the first edition, I wish to thank my predecessors and colleagues in San Francisco for setting the initial direction for this text. I would also like to thank the publisher, the editorial staff at McGraw-Hill, especially David Barnes and Harriet Lebowitz, and the manuscript copyeditor, Arline Keith. A special debt of gratitude is extended to Jim Ransom, whose outstanding editorial work on the first edition continues to make the text readable.

The contributors, the publisher, and I are grateful to the American Psychiatric Association for permission to quote directly from *Diagnostic and Statistical Manual of Mental Disorders*, Fourth edition (*DSM-IV*), in this work. Descriptive matter is enclosed in quotation marks in the text exactly as it appears in *DSM-IV*. Tabular matter is modified slightly as to form only in accordance with the publisher's editorial usage.

We are still interested in soliciting comments and recommendations for future editions of this textbook. Correspondence should be addressed to us at McGraw-Hill, Medical Publishing Division, Lange Medical Books, Two Penn Plaza, 12th Floor, New York, NY 10121.

Howard H. Goldman, MD, MPH, PhD
Baltimore, Maryland
June, 2000

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Section I. Theory & Concepts

Review of General Psychiatry: Introduction

1

Howard H. Goldman, MD, MPH, PhD

Review of General Psychiatry examines and discusses the two major domains of the medical specialty field of psychiatry: mental disorder and individual behavior in health and sickness. Both areas are characterized by a degree of scientific uncertainty. Psychiatry uses models of behavior and mental activity to reduce uncertainty by organizing what is known into a conceptual framework.

THE BIOPSYCHOSOCIAL MODEL

The biopsychosocial model is a defense against uncertainty, an approach to thinking about mental disorder and individual behavior. The psychiatrist may view both domains from biomedical and psychosocial perspectives and consider specific problems and potential solutions from each viewpoint. The biopsychosocial model is a perspective, not a theory—a way of organizing disparate data that permits clinicians and scientists to consider various points of view and integrate them into a coherent approach to the patient. For example, the busy medical student with migraine headache is not viewed as the passive victim of familial defects in neurovascular function or the angry combatant in a competitive profession, living a stressful life-style. Both views are correct, potentially helpful, and not mutually exclusive. The model, championed by George Engel and discussed again in other chapters, is introduced below in a clinical case and in a summary of some current research in neuroscience to demonstrate its scope and utility.

What do the aged couple in the following illustrative case and the animal model of anxiety in the snail *Aplysia* have in common? How does the biopsychosocial model enable us to appreciate these shared features? There is substantial agreement that clinical biomedical problems, such as heart attacks, are in part influenced by psychosocial factors, for instance, the sudden death of a loved one. It also is generally accepted that biomedical problems (eg, a stroke) may

cause secondary behavioral and psychosocial problems (eg, loss of a job or dissolution of a marriage). It is more difficult to appreciate the specific effect of social and psychological factors on anatomic structures and physiological functions. The clinical case of an aged couple will show how the biopsychosocial model facilitates understanding of the interactions of biomedical and psychosocial factors. The animal model of anxiety in *Aplysia* illustrates the use of the biopsychosocial model in basic research. In particular, it examines the mechanism by which learned responses (eg, anxiety) may cause specific neurochemical and neuroanatomic changes.

Illustrative Case

A couple in their mid-80s had been married for 65 years and continued to live together in an apartment in spite of their increasing infirmities. The husband had severe emphysema and cardiac arrhythmia and was becoming forgetful; his wife had mild hypertension and was becoming impaired by senile dementia. On the eve of his 85th birthday, the old man became acutely short of breath and anxious. Fearful that he was going to die, he called his married daughter and was taken to the hospital in acute respiratory distress. He was later found to have inoperable lung cancer for which only palliative treatment could be offered.

While the patient was hospitalized, his wife went to live with their daughter and son-in-law. At night she wandered the rooms of the house, looking for her husband. She was argumentative and confused, not seeming to know where she was or what she should do. Her children and grandchildren had been aware of her increasing mental problems, but she was much more disturbed than they had realized or perhaps had wanted to realize.

Her apparently dramatic change could be explained in two ways: (1) she was undergoing a period of acute situational stress; and (2) her deterioration had not been obvious as long as she was part of a functioning couple. Her husband had been helping

her at home, nursing her, and covering up her deficits so that the family would not see them. He was no longer available to do these things. Plans were made to discharge him to a nursing home, where he could continue to live with his wife in a double room. Although he was depressed, he adjusted to the nursing home, accepting the fact that this was where he would live out his days. He lived to see his granddaughter married, and then he died. The wife never adjusted, and her mental condition continued to deteriorate. She still expected her husband to come home each evening, concluding that she never saw him because he left each day before she awakened and returned while she was asleep.

The interaction of biomedical and psychosocial factors in disease and illness is illustrated by this case. The husband's illness had precipitated a change in the delicate balance of the couple's independence. The wife needed nursing care, and his illness kept him from providing it. Many people die or become ill on achieving certain milestones—an anniversary, a holiday, or, as in this case, a birthday. This man's 85th birthday had special significance. His driver's license, the key to his independence and his ability to care for his wife at home, expired on his birthday. He had been preparing for the test with great difficulty and was afraid he would not pass. Going to a nursing home gave him the comfort of knowing that when he died, his wife would be taken care of without being a burden to the family. His cancer had been developing for a long time, but clinically obvious illness began on his birthday.

A keen awareness of the interplay between biomedical and psychosocial factors is the essence of clinical medicine. Knowledge of the nuances of this interaction can help to answer two of the most important questions in medicine: Why did the patient become ill *now* (and not yesterday or a week or month ago)? And how can we treat this individual with an established diagnosis (that may be incurable)?

The mechanisms by which stress precipitates and exacerbates illness, lowers host resistance, and perhaps causes some diseases are currently being investigated. It would also be useful to examine how coping and adaptation work to prevent illness or reduce its severity. Learning how symbolic events, thoughts, and feelings influence behavior and initiate pathological processes in humans is a challenge for future research. Some early work in this area has been reported by Eric Kandel and his associates studying an animal model of anxiety in the marine snail *Aplysia*, whose nervous system is simple, well understood, and accessible to investigation.

Research Example: Animal Model of Anxiety

Using the sea snail *Aplysia* as a research subject, Kandel describes an animal model of anticipatory anxiety and chronic anxiety reflected in two forms of

learned fear produced by classic conditioning and sensitization. Each form of fear is associated with distinguishable cellular and molecular changes.

Aplysia demonstrates a defensive "fear response" when presented with a noxious stimulus such as an electric shock to its head. The response includes an increase in movement away from the stimulus ("escape locomotion"), an increase in other defensive behaviors (eg, withdrawal of the head and siphon into the shell, releasing ink), and a decrease in feeding behavior. This fearful response may be learned by the snail in two ways: *Aplysia* may be conditioned, like Pavlov's dog (see Chapter 2), to respond fearfully to a neutral stimulus, such as shrimp extract, without the electric shock. If the snail is repeatedly given an electric shock each time shrimp extract is presented to it, the snail eventually responds with fear to the shrimp extract alone. This classic conditioning is similar to human anticipatory anxiety (and phobic anxiety). *Aplysia* can also be sensitized by random, unpredictable electric shocks, resulting in generally heightened responsiveness, so that almost any stimulus produces fearful behavior, as seen in chronic anxiety in humans.

In a series of elegant experiments, Kandel and his colleagues explored the cellular and molecular mechanisms associated with these two forms of learned fear. The sensitization model of chronic anxiety has been studied more extensively and appears to be related to presynaptic facilitation. The repeated head shocks lead to an "enhancement of the connections made by the sensory neurons on their target cells: the interneurons and the motor neurons" (Kandel, 1983, p 1285), resulting in increased escape behavior.

This enhancement is caused by increases in a serotonin-like neurotransmitter in the presynaptic sensory neurons, which produces an increase in cyclic adenosine monophosphate (cAMP). In turn, cAMP leads to an increase in neurotransmitter release from terminals in the synapse connecting the sensory neurons and motor neurons. The resulting neurotransmission activates "escape locomotion" and other defensive behaviors in response to a wide array of stimuli.

The investigators found that the molecular mechanism involved enhanced protein phosphorylation and increased influx of calcium, resulting in morphological changes in the presynaptic neurons, detectable by electron microscopy. They speculate that the functional and structural changes associated with sensitization may be caused by alterations in gene expression: "the possibility of gene regulation by experience suggests a class of molecular regulatory defects that might be caused by learning" (Kandel, 1983, p 1287).

The conditioning model for anticipatory anxiety is not as well described but seems to be similar in many ways to sensitization. Also producing presynaptic facilitation, conditioned fear appears to "augment" the process by "activity-dependent enhancement." This means that the learned association between the condi-

tioned stimulus (the shrimp extract) and the fear response is produced by the increased release of neurotransmitter when the snail senses the presence of shrimp extract. The increased neurotransmission in response to the conditioned stimulus then sets in motion the same enhanced fear response mechanism seen in the sensitization model of chronic anxiety.

This research suggests that "normal learning, the learning of anxiety and unlearning it through psychotherapeutic intervention, might involve long-term functional and structural changes in the brain" (Kandel, 1983, p 1291). Investigations such as these demonstrate the interaction of biomedical and psychosocial phenomena, brain and behavior, in everyday life and clinical medicine.

Fifteen years and countless experiments after these early studies on an animal model of anxiety, neurobiology has evolved so much that Kandel has articulated a new intellectual framework for psychiatry. This new conceptual framework, grounded in neuroscience, may be summarized in five principles about the relationship of mind to brain (Kandel, 1998, p 460).

"Principle 1. All mental processes . . . derive from operations of the brain."

"Principle 2. Genes and their protein products are important determinants of the patterns of interconnections between neurons in the brain and the details of their functioning."

"Principle 3. Altered genes do not, by themselves, explain all of the variance of a given major mental illness."

"Principle 4. Alterations in gene expression induced by learning give rise to changes in patterns of neuronal connections."

"Principle 5. Insofar as psychotherapy or counseling is effective and produces long-term changes in behavior, it presumably does so through learning, by producing changes in gene expression."

THE PLAN OF THE TEXTBOOK

Review of General Psychiatry is divided into four sections: theories and concepts, psychiatric assessment, the mental disorders, and treatments and special interventions.

The first section presents the basic science of psychiatry, material usually included in first-year psychiatry courses. This section introduces the biopsychosocial model and explores its various aspects. The section concludes with an introduction to psychopathology, the clinical science of psychiatry, the study of mental disorder, and a glossary of psychopathology terminology.

The second section concerns clinical assessment. It can serve as a basic text for introductory courses in interviewing and clinical psychiatry, including a clerkship in psychiatry.

The third and fourth sections may be used as a text for introductory courses in clinical psychiatry and for the core clerkship in psychiatry. Some of the chapters are also designed for use in a consultation-liaison psychiatry course and for courses in the psychiatric aspects of medical practice. The third section presents the mental disorders, for the most part as they are classified in the fourth edition of *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*. An illustrative case is provided for many of the disorders presented in each chapter. The fourth section discusses methods of psychiatric treatment and presents some material on special topics in psychiatry. Although the text was designed for use in general medical and psychiatric education, we hope that trainees and practitioners in other health, mental health, and social welfare disciplines will find *Review of General Psychiatry* helpful and stimulating.

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2

Theoretical Foundations of Psychiatry

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This chapter includes a brief history of prefreudian psychiatry and a discussion of the major theories and treatment methods that comprise modern practice. These subjects are discussed in greater detail in later chapters. The purpose is to provide a skeletal framework of the field that can be expanded by further readings and clinical experiences.

The field of psychiatry, in concert with the allied mental health professions, has come to encompass a wide spectrum of human mental, instinctual, and behavioral experience—mood disorders, eating disorders, sexual disorders, phobias, etc. Considering the number and diversity of mental disorders encompassed, it is not surprising that a great many conflicting theories have evolved about their causes, mechanisms, and proper treatment. The student in search of a unifying conceptual framework—a unified field theory of psychiatry—will be disappointed. It is necessary to take on trust that each of the various theories that comprise modern psychiatry has its own place in the unfinished mosaic of knowledge in this field.

HISTORY OF PSYCHIATRY BEFORE FREUD

Early civilizations frequently attributed madness to magical or divine forces. Attempts at treatment were administered mostly by clergy and were grounded in religious beliefs and ritual.

Greek and Roman societies began to apply the medical beliefs of their day to psychiatric symptoms, hypothesized to result from imbalances of the essential humors (blood, phlegm, yellow bile, and black bile) and other derangements of vital processes. Hippocratic doctrine considered hysteria (derived from the Greek word for womb: *hysterus*) a consequence of a physically wandering uterus. Galen (c 130–c 201) attributed melancholia to an excess of black bile.

Asylums for the mentally ill were first established in medieval times. In the Renaissance the insane, believed to be possessed by the devil, were condemned by ecclesiastical authorities and tortured as witches. Even the greatest physicians of the day advocated that they be burned. This age-old stigmatization of

the mentally ill, with its attendant fear and discrimination, is, unfortunately, still very much with us.

Seventeenth- and eighteenth-century asylums, with some exceptions, were dreadful places where patients were kept in chains and whipping was a common form of treatment. Toward the latter part of this period—notably around the time of the French Revolution—reforms in treatment of the insane began. Phillipe Pinel (1745–1826) in France and William Tuke (1732–1822) in England were influential advocates for humane treatment of the mentally ill. The chains and cruelty began to give way to decent living conditions and to attempts at rehabilitation.

In the late 1700s, Franz Mesmer (1734–1815), an Austrian physician, pioneered work now considered by some to be the earliest example of psychotherapy. He would establish rapport with and work with individual patients, practicing what was at the time called mesmerism—later modified and renamed hypnosis.

The nineteenth century heralded the beginning of a more scientific approach to psychiatry. Many detailed descriptions of psychiatric syndromes were recorded, and the basis of the modern classification of mental disorders was established. Emil Kraepelin (1856–1926) is best known for his contribution to differential diagnosis in psychiatry. He suggested two major categories of severe mental disorders: manic-depressive illness and dementia praecox. Kraepelin's manic-depressive category generally corresponds to the modern classification of mood disorders (bipolar disorder, recurrent major depression, and other disorders, discussed in Chapter 20); he noted the cyclical course of this type of illness, with recovery following symptomatic episodes. Dementia praecox is the forerunner to the current classification of schizophrenia and related syndromes (Chapters 20 and 21). Furthermore, Kraepelin noted the long-term deteriorating course of this type of illness, in contrast to the fluctuating course of manic-depressive illnesses. Eugen Bleuler (1857–1939), a Swiss psychiatrist, further studied and described dementia praecox and renamed the syndrome schizophrenia to distinguish it from true dementia.

In the latter part of the nineteenth century, Jean Charcot (1825–1893), a French neurologist, was treating hysteria with hypnosis. This treatment tech-

nique was, for a time, adopted by an obscure Austrian physician who had been impressed with Charcot's work. The emergence (under hypnosis) of psychic material not readily ascertained in the normal waking state contributed to this practitioner's later revelations regarding mental functioning. His name was Sigmund Freud.

FREUD'S CONTRIBUTION

Few twentieth-century individuals loom as large as Sigmund Freud (1856–1939), both as a founder of modern psychiatry and as a cultural force. His impact on the arts, literature, and education was profound and far-reaching. Much of his wide appeal can be attributed to the masterful way he described his theories and case histories, often linking them to references in the Bible, classical literature, and Renaissance culture. In the United States his influence on the development of psychiatry and culture in the mid-twentieth century was such that every student of medicine should know something about Sigmund Freud and his theories—regardless of recent controversies about their place in contemporary psychiatric treatment.

Although Freud trained as a neurologist, he was barred from practicing traditional neurology in Vienna in part because of anti-Semitism. That professional crisis provided Freud with an unexpected opportunity. He began to consult with patients whose symptoms were not explained by the traditional approaches of the discipline. Freud's work with these patients inspired him to formulate the theories and practice of psychoanalysis. The word psychoanalysis, then and now, refers both to the theory Freud developed and the treatment itself (see Chapter 31).

Psychoanalysis as Theory

Psychoanalysis as a theory provides a comprehensive approach to understanding psychic development, emotion, and behavior as well as psychiatric illness. As Freud developed his ideas, he posited a **psychic apparatus** with three parts: **id**, **ego**, and **superego**. This **structural theory**, as it was called, defined the superego as the conscience, the id as the repository of raw impulses and drives such as sex and aggression, and the ego as the rational mediator between the expectations of the superego and the pressures for gratification of the id. Freud believed that the three structures related to each other in a dynamic equilibrium. If the ego failed to keep the demands of the id and superego in balance, the individual experienced psychological symptoms and distress.

Another fundamental concept of psychoanalysis—the **psychosexual stages of development**—postulated that a person must accomplish a series of tasks or achievements from infancy to adulthood to achieve psychological health (see Chapter 4). Freud associ-

ated each of these psychosexual stages with a part of the anatomy as well as with physiological and psychological functions. For example, the **oral stage**, from birth to 18 months, was anatomically represented by the mouth, with eating (symbolically sucking at the breast) as the physiological function and being loved and nurtured as the psychological task. The **anal phase**, which begins at around 2 years, focused on the anus anatomically, with bowel control as the physiological function and autonomy and self-control as the psychological task. Finally, the **genital phase**, at ages 3–5, defined the genitals as pleasure-providing organs physiologically and linked them psychologically to the then-prevalent notion that males were active (phallic) and females passive (receptive). As Freud listened to his patients' childhood histories, he hypothesized that failure to complete the task of a certain psychosexual phase would impair adult psychological health and functioning. For example, problems of inadequate nurturing during the oral stage could produce an adult who feels unloved and suffers dependency problems in relationships.

It is implicit in the concept of psychosexual stages that early experience shapes the adult's self-image and potential for success in work and relationships. It is one of Freud's pivotal contributions to modern understanding of mental disease that trauma during development causes psychopathology in adult life. Therefore, a successful psychoanalysis must include a detailed history of the patient's early life as well as a complete exploration of current difficulties.

Psychoanalysis as a Form of Treatment

Psychoanalysis is not synonymous with psychotherapy. It is a type of psychotherapy practiced by a minority of therapists who must receive specialized analytic training in addition to their more generalized therapeutic training. Psychoanalysis as a specific treatment method requires some explanation because its techniques are unusual and often misunderstood. The patient lies on a couch and the analyst sits out of the patient's line of sight. The analyst attempts to represent, as much as possible, a neutral figure. To proceed with the major task of analysis—an examination of the patient's inner life—the analyst responds to many of the patient's comments with silence or with an explanation (**interpretation**) aimed at uncovering their deeper, latent meaning. Called the **rule of abstinence**, this seemingly asocial means of communication is designed to help patients overcome a natural reluctance to expose intimate details of their lives.

As unnatural as this technique appears, Freud felt it was essential to achieve the major objective of a psychoanalysis: uncovering the patient's hidden psychic life, which he called the **unconscious**. He defined the unconscious as a layer of mental life that exists outside of awareness but still influences emotions and be-

havior. Freud emphasized that the analyst's central task was to help patients discover the secrets of their unconscious. Once aware of these hidden feelings and thoughts, patients would be able to examine the role they played in the development of symptoms.

Symptom Formation

Freud hypothesized that symptoms of mental disorder arose when conflicting emotions such as hate and love or assertiveness and passivity produced unmanageable distress. Borrowing from popular scientific notions about conservation of energy, he posited that psychic conflict created an energy imbalance in the psychic apparatus. The patient was alerted to this imbalance of psychic energy by experiencing anxiety. This psychological alert, called **signal anxiety**, induced the psychic apparatus to relieve distress by transferring awareness of the conflict into the unconscious. This mechanism of movement from the conscious to the unconscious is called **repression**. However, repression often fails to bury the conflict entirely. Elements of awareness leak into consciousness, again causing anxiety. Then, in another attempt to diminish distress, the psychic apparatus further disposes of the anxiety by transforming it into a neurotic symptom (**symptom formation**). Freud posited

the creation of **psychic defenses** as protection against intrapsychic conflict and anxiety and considered symptom formation largely a consequence of the failure of the **mechanisms of defense** (Table 2-1).

Working with Unconscious Material

In his intensive work with patients, Freud discovered phenomena and developed techniques that allowed the analyst to observe the workings of the unconscious. These include slips of the tongue, dream analysis, free association, transference, and resistance. These subjects will be described and illustrated by means of clinical material.

A. Slips of the Tongue: Slips of the tongue, commonly called **freudian slips**, were one of Freud's earliest discoveries. Clues to unconscious material were evident when a person misused a word resulting in a trivial error that in fact revealed the patient's inner feelings. A typical freudian slip is demonstrated by the following:

An unattached young man, envious of a couple who are in love, remarks as they go off to the beach, "Have a nice lay" (instead of "nice day"). Before this slip, if asked directly, the young man would have been unaware that he had a fantasy about the couple's love life. But the slip suggests otherwise.

Table 2-1. Mechanisms of defense.

Denial	The unconscious literally deletes from awareness an unpleasant or anxiety-provoking reality. A patient told of a terminal diagnosis has "forgotten" being so informed.
Sublimation	The redirection of an unacceptable impulse into an acceptable form of behavior. An individual with intense unconscious voyeuristic impulses becomes a sex therapist.
Reaction formation	The redirection of an unacceptable impulse into its opposite. A former smoker zealously enforces the new "no smoking" law.
Displacement	An impulse toward a given person or situation is redirected toward a "safer" less distressing object. A resident is humiliated by an attending physician and becomes enraged at his subordinate interns and medical students.
Projection	An unacceptable or anxiety-provoking impulse or affect is transplanted to another individual or situation. It is then "out there" rather than in oneself. A parent becomes preoccupied with his adolescent daughter's alleged promiscuity, thereby projecting his own impulses onto the teenager.
Rationalization	An acceptable explanation for a feeling or behavior is used to camouflage the unacceptable underlying motive or impulse. An obese man thinks he overate at the party so as not to offend his hostess.
Intellectualization	The avoidance of "feeling" by taking refuge in "thinking." A defeated quarterback avoids feelings of self-reproach and inadequacy by meticulously and logically explaining the details of his strategic errors.
Repression	Disturbing psychological material is secondarily removed from consciousness or primarily prevented from becoming conscious. Repressed memories and feelings associated with childhood sexual abuse are unleashed into consciousness when, as an adult, the patient is taken to a movie about a woman who had been raped.
Isolation of affect	The removal of disturbing affect from an idea or event, with the dispassionate details or description remaining. A combat veteran recounts seeing a friend killed but speaks in a cold and distant tone. He has "isolated" and "repressed" the intense fear and horror (affect) that might accompany the memory.
Suppression	Intentional repression of unpleasant conscious material. A medical student exits the Part I examination with a sense that he has failed. He decides not to worry about it until the scores arrive in the mail because it will accomplish nothing to do so.
Humor	A conscious and unconscious defense that allows material that stirs unpleasant affects to be better tolerated in consciousness. A screaming patient is the subject of laughter and mimicry in the privacy of the doctor's lounge.