
Psychological Defense Mechanisms

1. *A 45-year-old man was quite surprised to discover that he had completely forgotten his doctor's appointment one Monday until his wife asked him about it that same evening. He had suffered severe chest pain a week before, but after it subsided, he decided not to call the doctor because his routine checkup appointment had already been scheduled for that Monday.*
2. *A young physician admitted a 29-year-old woman to the surgical service but could not understand his patient. Earlier the same day, she had gone to her family doctor's office complaining of a sore throat. When her doctor examined her, he found an area of ulceration on her breast and a hard lump under the ulcerated area. On admission to the surgical service, she told the admitting physician that she entered the hospital because of a sore throat—completely ignoring the breast condition. When asked about it, she said that she had noticed it three months ago but had not paid any attention to it.*
3. *A respected surgeon specializing in the surgical treatment of cancer always appears cheerful and optimistic. When a colleague commented to him that it must be difficult to maintain such cheerfulness while treating cancer patients, he said, "All cancer patients want to be cheerful and optimistic. So, I am cheerful, and they are cheerful." One of his patients, however, was not always cheerful and was referred to the psychiatrist. She told the psychiatrist, "I feel like a failure. I cannot keep up a cheerful front for my doctor."*
4. *A patient in the coronary care unit who had witnessed the death of the patient in the next bed was asked what had happened. He said, "The guy*

in the next bed improved and was transferred to the medical floor, since he doesn't need to be on intensive care any more."

5. An intern proposed a crippling radical operation for a cancer patient, even though the cancer was widespread throughout the body and could not be ameliorated by the proposed surgery.

6. A 45-year-old man underwent open-heart surgery for replacement of the mitral valve. He was recuperating satisfactorily in the recovery room until the second postoperative day. At noon, the nurses noted that he was becoming confused and restless. Shortly thereafter, he was openly agitated and attempted to pull out his intravenous tubing. He insisted that the women in the room (nurses) were plotting to kill him by injecting poison through the intravenous apparatus. On mental-status examination, he was noted to be grossly disoriented as to time and place and unable to remember even simple things such as a three-digit number.

In the first five cases presented above, either the patient or the doctor avoided or minimized a potentially unpleasant situation and feelings—for example, finding out that he or she might have a serious disease (vignettes 1 and 2), having to discuss the gravity of the illness with the patient, or recognizing that patients may sometimes feel discouraged (vignette 3). This kind of avoidance or minimization is effective only temporarily and, in the long run, is often *detrimental*—unduly delaying help-seeking behavior and prompt medical treatment. On the other hand, as a short-term reaction, it can be *beneficial* when the *danger situation abates spontaneously* or in situations when *everything that can be done to deal with the danger is already being done* and when the *physiological change of anxiety could be harmful*. For example, patients who deny feeling frightened or apprehensive in the coronary care unit for the first few days after suffering from a heart attack have been shown to have better survival rates than patients who admit feeling frightened or apprehensive (Hackett *et al.*, 1968). Understanding the psychology of defense mechanisms can help in developing an appreciation for some of the (sometimes inscrutable) adaptive and maladaptive ways that patients and doctors behave when exposed to the myriad of unpleasant situations and emotions connected with illness and death.

DISTRESS, ANXIETY, AND DEFENSE MECHANISMS

As we discussed earlier, help-seeking behavior occurs when a person has reached his limit of tolerance of anxiety because of a symptom or

disability. Anxiety arising from problems of living may also result in help-seeking behavior by lowering the person's threshold for tolerance (e.g., of pain), increasing his awareness of discomfort associated with the symptom, or motivating him to seek comfort through interpersonal contact with the doctor. In each of these situations, the common denominator is a *felt distress* experienced by the patient (or, in some instances, by other persons involved with the patient) that moves him to seek help.

When perceptual and psychological stimuli activate *memories* associated with dangerous situations or are themselves perceived and evaluated as being *directly threatening*, then *anxiety* results. The brain structures as well as the physiological and psychological mechanisms involved in the generation of anxiety and the anxiety response have been discussed in Chapter 4. We have seen that anxiety serves as a signal to the organism that it has to somehow cope with a potentially dangerous situation. Human beings may deal with anxiety (and thus the danger situation) in two ways: (1) by fleeing from or eliminating the source of the stimuli, that is, *fight or flight*, or (2) by internal adjustments in the central nervous and psychological systems whereby the anxiety sensation is reduced and the potential danger situation "avoided," although the stimuli may still be present. This is always the case when the stimuli are internal rather than external, since we cannot flee from internal psychological-motivational sources of potential danger. The internal adjustment mechanisms are called *psychological defense mechanisms*.

When the stimuli associated with danger come from outside the person, elimination of the source would be most desirable, but is not always possible. Sometimes we have to make *inner adjustments to ignore unpleasant events* outside because we are not powerful enough or are otherwise unable to change them. If the danger situation exists internally—that is, if a psychological conflict has been activated that, if allowed to run its course, threatens to overwhelm the person emotionally—the only resource lies in the use of *internal adjustments*. For example, certain past memories or mental representation of forbidden conflictual drives may be rendered inaccessible to consciousness; this is called *repression* in psychological terms. Of course, there must be changes in the central nervous system that subserve these phenomena, such as, perhaps, attenuation of associative pathways in parts of the brain involved in memory storage and retrieval. We do not yet have the technology that would permit study and description of these different aspects in a unified way. The best we can do, then, is to refer to states and changes in the brain that manifest themselves in both the physiological and psychological realms

and to describe separately and in parallel the changes in the two realms insofar as they are known.

We should emphasize that the defense mechanisms come into being *automatically* ("unconsciously"), that is, without conscious "willing" on our part. According to psychoanalytic theory, the generation of a small amount of anxiety as a signal is considered to usher in the defense mechanisms, which, in turn, avoid the development of clinical anxiety. There are individual variations in the kind of defense mechanisms habitually used in the face of potential danger. Some persons usually or preferentially cope with danger situations by using internal adjustment processes (defense mechanisms), others use mainly outer-directed defensive activity, and some use both.

During the course of development, each person develops a repertoire of defenses, some of which are called into play (separately or in combinations) so habitually that, in effect, they become part of the person's character style. For example, if someone habitually attributes inner unacceptable feelings to others (this defense is called projection; see below), we may speak of him as a paranoid character. Since habitual defense mechanisms can be expected to be utilized when a person encounters threatening events, including discovery of symptoms or signs of disease, these character styles have special implications for medical management, as we will see in Chapter 18.

It seems likely that developmental environmental influences, especially learning experiences within the family, contribute to the development of defenses and defensive repertoires, but there is still a great deal to be learned about the ontogeny of defenses.

As the term "defense" implies, these mechanisms are usually quite adaptive and are necessary in daily life, serving useful functions, just as inflammation serves useful physiological defense functions. On the other hand, exaggerated or persistent use of certain defensive maneuvers may lead to psychopathology, just as persistent inflammation may itself contribute to certain diseases.

When defenses break down, increasing conscious experiences of free anxiety and awareness of danger develop and may lead to help-seeking behavior. In addition, as we saw in Chapter 4, when the physiological activation is severe and prolonged, the stage may be set for precipitation or exacerbation of stress-related illnesses (Sachar *et al.*, 1970). The variety of effective defenses and combinations of defenses that are available for flexible and appropriate mobilization when needed serve as one highly important measure of a person's capacity to adapt successfully and maintain health in a dynamically stressful environment. This assessment is

a major consideration that a psychiatrist takes into account in appraising the strength ("ego strength") of the personality.

Our discussion of defenses is oriented toward the medical reader; we have tried whenever it is appropriate to emphasize the ways in which defenses manifest themselves so as to influence the sick role, illness, and professional behaviors. Our main concern is their relevance to medical practice in all its aspects—diagnosis, treatment, research, and prevention.

CLASSIFICATION OF DEFENSE MECHANISMS

Despite the importance of their functions, there is, unfortunately, no standard system for classifying defenses—nor is there, for that matter, any standard comprehensive list of them. The classification systems that are offered differ from one another. Anna Freud (1966) proposed that repression be regarded as the primary defense, with the others then to be regarded as reinforcing it. Vaillant (Vaillant, 1977; Vaillant and Drake, 1985; Vaillant and Milofsky, 1980; Vaillant *et al.*, 1986) classifies defense mechanisms on the basis of their maturity in the developmental continuum as *mature* (anticipation, suppression, altruism, sublimation, humor), *intermediate* (isolation, repression, reaction formation, displacement), and *immature* (passive aggression or masochism, hypochondriasis, acting out, dissociation, projection, schizoid fantasy). Others classify them as successful or unsuccessful, still others as defenses that are directed primarily toward outer dangers and those that are primarily inwardly oriented. In the discussion of the defenses that follows, we have grouped them according to a scheme that is compatible or syntonic with the general systems approach that we have used in the rest of the book.*

The personality system can be seen as consisting of *input*, *internal processing-decider*, and *output* apparatuses or subsystems for handling information. General system concepts can be applied to classify the defense mechanisms on the basis of the subsystem most affected by the defensive process (see Figure 8) (Leigh and Reiser, 1982). "Input" refers to the perceptual apparatus, "internal processing" refers to the associative and memory connections, "decider" refers to the hypothetical "executive" apparatus (of the ego), and "output" refers to the devices subserving motor (including verbal) function. Obviously, for any defense mechanism to be mobilized, there must be some perception of a danger situation, and

*This is for the sake of consistency and continuity and to facilitate transfer of concepts and understanding between different sections of the book and permit extrapolations from one section to another.

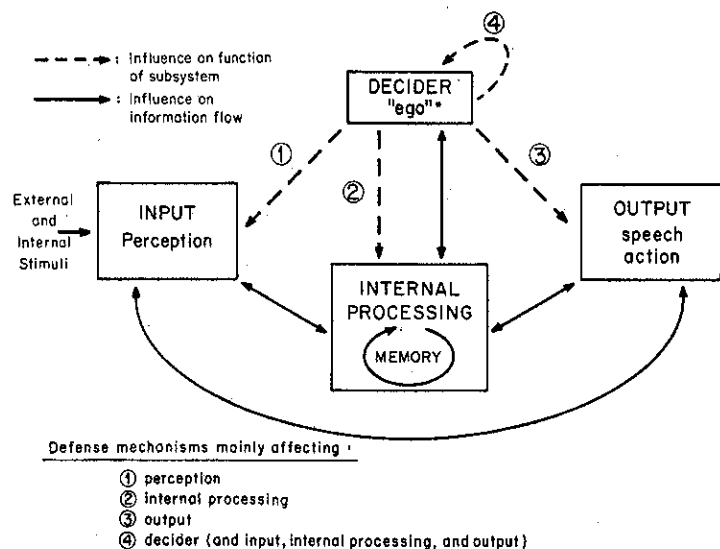


Figure 8. General systems diagram for defense mechanisms. Executive and defensive functions of the "ego."

the decider, through input from the internal processing apparatuses, mobilizes defense mechanisms, which in turn act on the functions and channels leading to any of the subsystems. Since the personal system is an open system, and all the subsystems have mutual feedback, any change in one subsystem usually affects all other systems more or less, and so, to some degree, all are involved (see Figure 8). The scheme we are using here classifies or groups defenses according to which subsystem—input, internal processing, output, or decider itself—is the one the altered function of which constitutes the presenting or most obvious manifestation of the defensive operation. Thus, *denial* of an external danger manifests itself mainly in the input (perceptual) subsystem. *Acting out* manifests itself mainly in the output subsystem. *Rationalization* manifests itself mainly in the internal processing subsystem. This scheme, then, simply highlights the subsystem manifestly most affected when the defense mechanism is in operation. A subsystem's function can be either increased, decreased, or altered, for example, by a reversal process in which an output device may send out a message that is opposite in character from the information contained in the internal processing subsystem. (As a result, a person may, for example, express hate in place of love or suspicion instead of trust.)

Defenses Listed According to Their Main Subsystem Effects*

1. Defense mechanisms that manifest their main effects in the *input* subsystem. These mechanisms reduce anxiety by changing the perception of a stimulus field that heralds the development of a potential danger situation by:
 - a. Diminution or negation of its perception (*denial*); this may even occasionally take the extreme form of negative hallucinations.
 - b. Switching the direction of feelings toward and/or thoughts about a highly important and meaningful person onto another, less meaningful, one (*displacement*), thereby enabling the individual to feel comfortable and safe with the negative thoughts or emotions. †
 - c. Perceiving certain feelings, characteristics, or thoughts as belonging to someone other than oneself (*projection*) or as being located within the self rather than in another person (*introjection*).
 - d. Reducing the perceptual sphere in a massive fashion (*constriction of awareness*).
2. Defense mechanisms that manifest their main effects in the *internal processing* subsystem. (Those affecting mainly the executive or decider subsystem are discussed separately below.) The mechanisms we have included in this category involve mainly changes in cognitive, associative, and integrative functions of the brain:
 - a. A stimulus or percept that reactivates and would ordinarily stimulate conscious recall of an old forgotten memory may fail to do so because of *repression*, a defense that attenuates association such that stored memories do not reach conscious awareness.
 - b. If the meaning of the motives underlying a particular action has been repressed, another reasonable but more socially and personally acceptable meaning may be substituted and con-

*Illustrative examples of each of the defense mechanisms will be given in a later section of this chapter.

†This mechanism, which may also involve considerable alterations in output and internal processing mechanisms, is grouped here with those involving perception as their primary mode of presentation, since the object of the negative thought or feeling is *perceived* to be different from the original object.

sidered by the person to constitute the motivation for that action (*rationalization*).

- c. *Intellectualization* refers to use of intellectual activity in an intense effort to master feelings through objective understanding.
 - d. When conflictual memories and ideas enter conscious thought or are verbalized without activation of appropriate affects, the defense of *isolation* is being utilized.
 - e. *Fantasy and daydreaming* involve associative processes that evoke pleasant feelings and may aid or reinforce denial by diverting attention away from anxiety-provoking stimuli in the environment.
 - f. The affective quality associated with a particular idea or action may be turned into its opposite (*reaction formation*); for example, a craving may be reversed and perceived as a revulsion.
3. Defense mechanisms that manifest their main effects in the *output* (action) subsystem. These mechanisms reduce anxiety by:
 - a. Concealing meanings from recognition by expressing them as actions rather than as thoughts (*acting out*).
 - b. Attempting to achieve mastery of a danger by direct active confrontation; for example, the lion tamer exposes himself to the very situation he fears and achieves a sense of security through mastery (*counterphobic maneuvers*).
 - c. Doing something that is considered to negate or "cancel out" a dangerous or guilt-producing action already performed (*undoing*).
 - d. Engaging in an activity that is socially acceptable and worthwhile in its own right but that at the same time may covertly gratify a conflictual forbidden desire (*sublimation*).
 - e. Finally, *activity* of any sort may serve in a nonspecific way to distract one's attention from the anxiety-producing situation and thus provide some relief.
 4. Defense mechanisms the main effects of which are more evenly distributed in the subsystems. The effects of regression and identification uniformly pervade all the functional subsystems through the *decider* or executive functions.
 - a. In the face of anxiety, we may have a tendency to revert to earlier modes of thinking, feeling, and acting in an effort to feel as we did at an earlier epoch of life when we were free of the kinds of anxiety-producing situations that now confront

- us or when earlier developmentally age-appropriate modes of behavior were successful in dealing with the kind of situation that is producing anxiety at present (*regression*). When this mechanism is manifest, we may, at least in part, perceive things as though we were a young child, concern ourselves increasingly with issues that were important in childhood, and behave and act in less mature ways. Regression may, of course, be maladaptive. In many situations, however, it serves adaptive purposes, especially when regulated and controlled, as, for example, in psychotherapy and creative activity. It can facilitate a hospitalized patient's adaptation to the sick role. When regression is excessive and uncontrolled, it can seriously impair the capacity for rational, mature adaptive behavior.
- b. Another mechanism that affects all the input, internal processing, and output apparatuses is *identification*. By modeling much of one's own behavior and self-image on another person's ways of perceiving, thinking, acting, dressing, speaking, and so forth, one may unconsciously feel as though one is the other person. This mechanism may protect against the anxiety over loss of, or fear of separation from, a loved person. It is also extensively involved in healthy growth, maturation, and learning.

ILLUSTRATIONS OF DEFENSE MECHANISMS AS THEY MAY BE ENCOUNTERED IN MEDICAL PRACTICE

Defense Mechanisms That Manifest Their Main Effects in the Input Subsystem

Denial. This is a mechanism by which a person manages to remain unaware of potentially anxiety-provoking external situations, perceptions, or emotional states. Some patients who have suffered heart attacks can in this way minimize the anxiety-provoking aspects of the situation and remain calm.

As noted earlier, this may have a salutary effect on the patient's clinical course during the early acute phase in the coronary care unit—probably by sparing the damaged heart muscle from physiological burdens that may accompany anxiety, such as increased demand for cardiac work or stimulation of irritable injured ventricular muscles by circulating epinephrine. It can be overdone, though; for example, some

patients, as soon as the pain subsides, refuse to believe that they have suffered a heart attack and sign out of the hospital against medical advice—only to be brought back a few hours later pronounced “dead on arrival.” Similarly, too much denial during the recovery and rehabilitation phase of illness may interfere with a patient’s ability to follow a prescribed regimen of carefully graded return to activity.

Some women who have found lumps in the breast may, through the use of this mechanism, delay consulting a physician (see vignettes 2 and 4).

Physicians may also use denial both adaptively and maladaptively. In dealing with a patient who is terminally ill, a certain amount of denial (of the seriousness of the illness) may be manifested as optimism in the physician’s attitude, and this may help the patient to sustain the hope that is so essential in coping with his condition. Excessive denial, however, may strain the patient’s credulity or capacity to respond (vignette 3) or may lead to unrealistic planning (vignette 5). Denial is one of the most common and important defense mechanisms encountered in medical practice, in both patients and physicians. It may be reflected in help-seeking behavior and in physicians’ behavior and may affect the course, treatment, and outcome of disease.

Displacement. In this process, conflictual feelings, thoughts, or impulses are directed away from an emotionally significant person and instead perceived as belonging to another person. For example, a patient who was actually insulted by the doctor felt offended by the nurse and was abusive toward her; a resident physician who had been criticized by his chief of staff became angry with his patient.*

Displacement occurs more easily when the secondary object is in some way actually or symbolically related to the original one. A patient who has unresolved angry feelings toward his mother may be prone to feel angry with the nurses because the nurturant, caretaking (mothering) aspects of the nurse’s role evoke conflictual memories and feelings about the mother.

Displacement is operative in heterothetic patient behavior. The emotional suffering and anxiety arising from problems of living may be shifted to a physical symptom in instances where contacting the physi-

*Behavior akin to displacement also appears in animals (Lorenz, 1966; Tinbergen, 1953). For example, a cat that has been made more aggressive by a dog’s barking may attack an inanimate object instead.

cian for a physical symptom is more acceptable to the patient than doing so for emotional reasons.

Projection. This is a mechanism by which unacceptable feelings and thoughts within oneself are attributed to and perceived as belonging to someone else. A patient may insist that he is consulting the physician only because his wife is upset about his symptoms, though he “knows” that “the symptoms are of no consequence.”

Projection is the major defense involved in the development of paranoid feelings and ideas. A patient who develops erotic feelings toward the physician may accuse him of being seductive or of making sexual advances. Confusing environmental cues (such as those encountered in intensive care units and recovery rooms) or lowered capacity to put together such cues and percepts (as in organic brain syndromes) facilitate projection and formation of paranoid persecutory delusions (see vignette 6). A physician uncomfortable about discussing the prognosis of a serious or terminal illness may feel that the patient does not wish to “know” (see vignette 3).

Introjection. This process, whereby the qualities of an emotionally important person are perceived as being within or belonging to the self, may lead a patient to regard a part of his body (such as a diseased organ) as though it were someone else. For example, a patient with cancer felt as though the cancer within her were her mother persecuting her from within her own body (see Chapter 22). This may occur at a conscious or an unconscious level. If conscious, it constitutes a frank delusion. If unconscious, it may give rise to neurotic attitudes about the illness or its treatment.

Constriction of Awareness (Constriction of the “Ego”): This is a process whereby the person reduces his sphere of awareness to exclude unpleasant situations from becoming conscious. This is usually achieved by focusing all one’s awareness on some limited aspects of one’s life at the expense of other aspects. For example, a patient with extensive and severe burns may focus his attention exclusively on his pain to avoid becoming aware of the possibility of being seriously disfigured.

Terminally ill patients often use constriction of awareness—being concerned and preoccupied with minor symptoms allows them to be unconcerned with (the implications of) the illness itself. Students are often surprised at the excessive concern over minor discomforts and seeming lack of concern about prognosis in seriously ill patients.

Defense Mechanisms That Manifest Their Main Effects in the Internal Processing Subsystem

Repression. This is the mechanism that underlies forgetting of unpleasant things—it bars unwanted impulses, memories, desires, thoughts, and other feelings from consciousness. Mental content so “forgotten” subjectively no longer seems to exist, but that it does remain in existence in the “unconscious” is evidenced by the fact that there are circumstances under which it may again become conscious, such as:

1. When critical functions of the mind are weakened, as in toxic states of the brain (e.g., drugs, severe fatigue, fever). For example, a patient with organic brain syndrome may use obscene language and may alarm the nurses with “improper suggestions.” (Normally unacceptable impulses are expressed due to reduced repression.)
2. When the critical functions of the mind are suspended, as in sleep (dreaming) or under hypnosis.
3. When the balance of forces between strength of repression and strength of the impulses is upset by an upsurge in pressure of the impulses such as occurs in puberty, after long periods of abstinence, or when life circumstances are particularly stimulating or seductive.

Repression operates unconsciously. There is a (probably related) conscious mechanism called *suppression* that refers to a conscious (intentional) effort to forget something or put it out of one’s mind. The accessibility or recovery into consciousness of forgotten material may vary from being *relatively* recoverable (e.g., momentary forgetting; see below) to being deeply and firmly barred from recall, as is the case with highly charged traumatic events. The latter may exert considerable influence on behavior, including that involved with health and illness. One striking example is the phenomenon known as the *anniversary reaction*, in which it has been observed that patients may become ill (e.g., suffer a heart attack) on the forgotten anniversary date of a highly charged painful event such as the death of a loved one (Weiss and English, 1957).

The simplest example of repression at work is *momentary forgetting*—the forgotten thought is often shown to be related to unpleasant feelings, either directly or indirectly. Other somewhat longer-lasting examples would be the patient in vignette 1 who conveniently forgot an important doctor’s appointment and the case of a patient who, on Monday, was told by his physician that he had cancer and, by Tuesday, had forgotten that he had seen his physician the previous day. Further

discussion of this defense and its ramifications would take us beyond the scope of this work; appropriate references should be consulted by those who are interested.

You can imagine for yourself the myriad ways in which emotionally determined forgetting could affect illness and sick-role behavior (e.g., forgetting to take medication).

Rationalization. This is a process whereby a person “explains away” anxiety-provoking situations or meanings. He may advance rational-sounding explanations for behaviors that were motivated by unacceptable or undesirable feelings or thoughts. The “rational explanations” usually have some degree of validity.

A woman who felt a lump in her breast did not consult a physician, having rationalized that it was due to the menstrual period she was having at the time of discovery. A patient with organic brain syndrome and memory difficulty may attribute his faulty memory to the medications he is taking (which may or may not be partially true). A hospital may require unrealistic working hours and case loads of its house staff “for their training experience,” when actually this may be motivated by the need for service.

Intellectualization. This defense is closely related to rationalization and refers to the use of intellectual processes to master anxiety-provoking information and situations. After developing a serious illness, a patient may spend much of his time reading about the illness in medical journals and textbooks. Under similar circumstances, another patient may read philosophy books in an attempt to develop a stoic attitude toward the illness.

Physicians invariably and naturally use intellectualization in their professional activities. Without it, constant exposure to illness and death might well be unbearable. Furthermore, it is knowledge and understanding that render the physician capable of practicing medicine. The wisdom, the skill, and the professionalism of the physician, as well as the objective and impartial attitude toward patients, all presuppose and, to an extent, require the use of intellectual defenses.

Since intellectualization is often an effective defense, physicians may wish to encourage some patients to use it and to provide them with detailed information about the disease, references to appropriate books, and other encouragement.

Isolation. Isolation as a psychological defense mechanism refers to the process whereby unpleasant feelings are dissociated from the cognitive

process. Thus, a person recognizes a situation or memory without experiencing painful or anxious feelings associated with it. Through this mechanism, a patient may be able to give the physician a detailed narrative of a painful experience, such as protracted pain, without becoming overly emotional. Survivors of catastrophes such as accidents and fires often use isolation when remembering the experience—and provide calm, newspaper-report-like accounts of frightening experiences.

This defense is obviously utilized a great deal by physicians. On occasion, excessive use of isolation by the physician gives the patient the impression that the physician is uncaring and hostile. Excessive isolation on the patient's part sometimes gives the physician the impression that the patient is really not suffering or that he is displaying "bizarre" affect.

Fantasy and Daydreaming. These are mechanisms through which (partial) gratification is achieved through imagination. They may also serve to distract attention away from unpleasant reality. Fantasy may concern or be stimulated by real situations; for example, a physical examination may stimulate the fantasy that the physician will meet the (unfulfilled) sexual needs of the patient. Although the content of daydreams is conscious, not all fantasies are. Patients are often unaware of the fantasy gratification they derive from medical experiences and procedures; for example, painful procedures may satisfy unconscious guilt or masochistic wishes. In extreme cases, this may even lead to the patient's repeatedly seeking operative procedures as though addicted to them. In such cases, the fantasy is acted out through a substitute activity that disguises the true nature of the underlying wishes and needs.

Reaction Formation. Through reaction formation, an unacceptable thought, feeling, or impulse generates its intensely felt opposite in consciousness. Thus, strong affection may be felt instead of hate, great respect instead of contempt, strong affinity instead of repulsion. A patient with unrecognized hostile feelings toward his doctor may become especially cooperative and even ingratiating. A physician may show extra concern toward a patient about whom he might feel hostile. On the other hand, it is also possible for hostility to replace or defend against love or erotic attraction that must be repressed. It should be emphasized again that these mechanisms operate without awareness—what the person actually feels is the (often exaggerated) opposite of the feeling against which he is defending himself.

Defense Mechanisms That Manifest Their Main Effects in the Output (Action) Subsystem

Counterphobic Maneuvers. These refer to the process by which a person exposes himself to or becomes involved in the very activity or situation he fears. The anxiety may be replaced or made up for by a sense of mastery. The lion tamer in the circus and the reformed alcoholic who has become an abstemious bartender are extreme examples. The patient who reads voluminous books about his illness is behaving counterphobically and using intellectualization as a defense.

Another example is that of an advanced cancer patient who, on being informed of her diagnosis, established a local chapter of the American Cancer Society within a short time and contributed greatly to a cancer early-detection program in the community. Still another is that of a patient with angina pectoris who regularly jogged every day, against his doctor's advice—he felt reassured when his chest pain after jogging did not reach unbearable intensity.

Undoing. This refers to an act that symbolically nullifies a previously committed act or thought. Rituals and ceremonial acts may be considered to be examples of undoing.

A physician may become oversolicitous or may overmedicate a patient in whose treatment he has made an error.

For some patients, the suffering that accompanies illness may serve the role of "undoing" actions or feelings about which they feel guilty.

Sublimation. Through this mechanism, wishes and impulses that were originally unacceptable can find gratification through acceptable channels. Thus, aggressive drives may be channeled into such socially acceptable activities as surgery; sexual curiosity may find expression in the practice of psychiatry. Sublimation is also important in many creative activities, including intellectual and artistic endeavors.

In the course of development, sublimations may become independent of their defensive (and substitute-gratification) role and continue to be pursued and perfected in their own right—for pleasure, for accomplishment, and for productivity. Each time the surgeon operates, each time the sculptor "attacks" a block of marble, he or she is not necessarily deriving covert gratification of aggressive impulses, even though such may once have been the case and can on occasion again be so.

Activity and Acting Out. Engaging in any sort of activity may help relieve or reduce anxiety or tension in a nonspecific way, and this may

be very useful and adaptive. The term "acting out" refers to a specific form of covert gratification, or discharge of unconscious wishes, or reenactment of forgotten experiences through acting that is unaccompanied by explicit recognition of its inner meaning. As in pantomime, the inner meaning may be obvious to the observer, but in acting out, it is not recognized by the "actor." A patient who convinces (seduces) doctors repeatedly to perform unnecessary exploratory operations for esoteric and vague symptoms may be acting out a forgotten conflictual memory of having been painfully and sadistically attacked or molested.

Withdrawal and Avoidance. These are psychological mechanisms by which a person avoids the occurrence of painful emotions by declining to engage in new interpersonal relationships and disengaging from old ones. Behavioral withdrawal and social isolation often follow. Some patients stop interpersonal contact after being informed of a serious illness because they anticipate and fear social rejection; others actively withdraw by choice to avoid ending up later in a position where the disability will leave them no choice and *force* them to limit interpersonal relationships. Withdrawal and avoidance may enable a patient to achieve a state of "comfortable" emotional detachment. When this is not effective, however, painful affective states such as depression may ensue; in fact, withdrawal and depression are often observed to occur together when the defense is only partially effective.

Defense Mechanisms the Main Effects of Which Are More Evenly Distributed in All the Subsystems by Affecting the Decider or Executive Subsystem Itself

Regression. In this mechanism, cognitive and behavioral aspects of earlier stages of development are reexperienced or reenacted, usually in the mode of an epoch during which the individual enjoyed rather full gratification and relative freedom from anxiety. When regressed, one may in many ways feel and act as though one were a child, or even an infant. Regressive behavior is a prominent feature of the psychopathology of some major psychopathological disorders, for example, in certain stages of schizophrenia. It can also be observed in medical patients, virtually invariably when the illness is severe or of long duration or both. Since the patient is expected to entrust his life and welfare to the health-care personnel (doctor, nurses, and others), he must assume a childlike dependent role. The medical-care setting is especially conducive to the appearance of this phenomenon; in fact, hospitalized patients find themselves literally infantilized—deprived of privacy, being bathed and fed,

having to carry out excretory functions in bed, and made almost wholly dependent on others. Given all this, added to the basic anxiety of being ill and in a hospital, a certain amount of regression is in fact probably necessary to function in the patient role in the hospital.

Along with regression, forgotten memories, conflicts, and feelings of childhood often reappear and lead patients into inappropriate acting out of childhood or infantile conflicts. A patient who without provocation accuses a particular nurse of being hostile to him may be reexperiencing old conflicts over dependency on a mother whom he had as a child perceived as uncaring and hostile. In such a case, the particular nurse might even have some characteristics of appearance or temperament that are reminiscent of the patient's mother; this would facilitate the process but is not a necessary condition for its occurrence. The experiencing of feelings that were associated with an important person in childhood as belonging to someone in the present is the *transference phenomenon*. Transference phenomena are regressive in nature and may utilize additional mechanisms such as displacement and projection.

Identification. Through this mechanism, a person takes on (with only partial or no realization that he is doing so) the characteristics of another person; that is, he *becomes like* the other person—perceiving, processing information, and behaving like the other. This is considered to be a major defense against the anxiety connected with separation from the loved person; that is, if you are (like) the person you love, you do not lose him. *Imitation* is seen as a precursor to identification. Through identification, a person learns a wide variety of values, attitudes, mannerisms, and behavioral characteristics, including illness behavior, sick-role behavior, and help-seeking behavior.

Identification may also be with a feared person (*identification with the aggressor*), in which case the motivating force may be to reduce the fear of the person by becoming like him. Another motivating force for identification may be guilt; taking on a hated person's suffering or symptoms may serve as "just" or "deserved" punishment and so relieve feelings of guilt. An example of this is a patient who developed unexplained shortness of breath and chest pain shortly after his mother's death from chronic lung disease.

As noted earlier, identification plays an important role in healthy growth, development, and learning. The educational development of the physician includes a large element of progressive identification with faculty who act as preceptors and role models. Patients also tend to form partial identification with their physicians, for example, in adopting the physician's attitude and outlook concerning the illness. (In

vignette 3, many patients of the surgeon identified with him, taking on his cheerfulness.)

DEFENSE MECHANISMS, ANXIETY, CHARACTER, AND COPING STYLES

Although the psychological mechanisms intrinsic to the defenses are extensively used in reducing anxiety, most of them—some more than others (e.g., fantasy)—seem to be inherent in human beings and may manifest themselves even in the absence of anxiety or anxiety-provoking situations. Some defense mechanisms are more closely related to particular personalities and psychiatric disorders than others. However, everybody uses some of the defense mechanisms in a habitual way, and, as noted earlier, this habitual pattern of defensive maneuvers forms the basis of "character." The term "personality" involves all the behavioral characteristics of a person, including the "character." These terms, however, are often used synonymously (see Chapter 18 for further discussion).

The defense mechanisms are also closely related to the concept of "coping styles." The latter refers to a person's habitual ways of dealing with clearly defined, conscious, usually external, anxiety-provoking situations, such as hospitalization or impending surgery. Many defense mechanisms, alone or in combination, enter into the development of the coping styles (see Chapter 15).

Personality inventories may be used to determine a person's coping style. For example, the "defensive" or "repressive" coping style may be determined by a combination of the Marlowe-Crowne Social Desirability Scale (Crowne and Marlowe, 1960) and the Taylor Manifest Anxiety Scale (Taylor, 1950). Persons with the "defensive" or "repressive" coping styles have been shown to experience very little negative emotions during the day, and increased positive emotions. They also seem to manifest higher resting blood pressure levels and increased tolerance to experimental pain, indicating that there might be a genetic/biochemical substrate to these coping styles (Jamner and Schwartz, 1986; Jamner *et al.*, 1988; Leigh *et al.*, 1990).

SUMMARY

Help-seeking behavior often occurs in the presence of anxiety. Human beings have a tendency to avoid feeling anxiety by the automatic

(unconscious) use of certain psychological processes called "defense mechanisms." The function of the defense mechanisms is to reduce or prevent the generation of anxiety, a common pathway to distress, by keeping stimuli that signal or could lead to danger situations out of conscious awareness or by inducing a sense of mastery.

The processes can be classified, on the basis of the functional subsystems primarily affected, into (1) those that affect input (perception), (2) those that affect internal processing (cognitive and affective processes), (3) those that affect output (action), and (4) those that affect all subsystems evenly by affecting the "decider" or "executive" function of the personality system.

Defense mechanisms commonly used in medical settings include denial, displacement, projection, introjection, constriction of awareness, repression, rationalization, intellectualization, acting out, counterphobic maneuvers, undoing, sublimation, nonspecific activity, regression, and identification.

IMPLICATIONS

For the Patient

The defense mechanisms that a patient uses exert a major influence on when and whether he seeks help for a particular symptom, how he will respond emotionally to the medical treatment and to information provided by the health-care team, and how he will cope with illness, procedures, and recovery process. For example, excessive use of denial and repression is likely to result in delayed help-seeking behavior, non-compliance with the doctor's instructions, and frequent conflict with the health-care personnel. On the other hand, the ability to deny anxiety to a limited degree and under certain circumstances, for example, in the acute phase of myocardial infarction, may exert a salutary effect.

For the Physician

In Terms of Understanding the Patient. An assessment of the habitual defense mechanisms used by the patient is essential for understanding the patient and for planning treatment approaches. The recognition that defense mechanisms are geared to ward off anxiety (and thus distress) should help the physician in learning how to cope with them. Defenses should not be attacked frontally—this will only cause excessive mobilization of anxiety and distress. The physician in vignette 2 would have

understood his patient better if he had been acquainted with the concept of denial, and he might even have wondered whether the excessive denial on the patient's part could have been related to a "priming experience," such as exposure to someone else who had a lump or ulceration on the breast. Regression is a common phenomenon in the hospital, where a certain amount of actual infantilization takes place. Recognition of this phenomenon will help the physician understand why some patients may manifest infantile or childlike behavior in the hospital and also why some patients develop irrational feelings concerning members of the health-care team, including the doctors and nurses. This understanding is important if the unrealistic or irrational feelings expressed by patients are not to be "taken personally" but rather to be understood as part of the process of being ill and as being directed not at the current health-care personnel but at important figures in the patient's past. Habitual defense mechanisms may serve as guides to *strategies in clinical management*. For example, patients who show a tendency to intellectualize may respond well to the provision of reading material concerning the illness or proposed procedure; patients who tend to show denial may respond better to blanket reassurances than to detailed information when anxiety reduction is indicated; patients who use repression excessively may not remember the doctor's instructions or explanations; patients accustomed to using activity as a major defense mechanism may find it unbearable to be confined in the hospital without activity, and for such patients, physical therapy may be indicated as well as early ambulation whenever possible.

In Terms of Understanding Self. In the doctor-patient relationship, the defense mechanisms used by the physician also play a major role. In dealing with patients, it is helpful for physicians to be aware of their own habitual defense mechanisms and to understand how they may interact with the patient's defensive style. One clue that may alert us to the fact that defense mechanisms may be "overworking" (i.e., that we are really quite anxious) is to feel a strong overwhelming conviction without being able to explicate the reasons for it. For example, a physician who feels strongly (and stubbornly) that radical surgery should be performed on a patient when, in fact, the objective indications for the operation are equivocal may be using the mechanisms of denial and activity as a way of reducing feelings of helplessness, impotence, and anxiety (vignette 5). Self-awareness could help him to refrain from insisting on an unnecessary, and perhaps dangerous, surgical procedure. Learning to *wait*, to *observe*, and to *listen*—rather than feeling compelled to *do* something (anything as long as it is active)—is one of the hardest "skills" physicians have to acquire. The social expectation that physicians will not exploit patients

for their own needs includes an implicit dictum against treatments that serve mainly as ways of reducing the physician's anxiety.

For the Community and the Health-Care System

Why do millions of people still smoke cigarettes despite the quite visible and rational warnings by the surgeon general and the medical profession? Surely, denial, counterphobic maneuvers, rationalization, and other defenses must play a role in the otherwise inscrutable smoking behavior of many individuals.

Refinement and extrapolation of principles based on understanding of psychological defenses in individual behavior in order to design programs of group and public health education, health-care delivery, and preventive medicine constitute a major challenge in our society.

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RECOMMENDED READING

- Freud A: *The Ego and the Mechanisms of Defense*. New York, International Universities Press, 1966. A classic monograph describing the phenomenology and development of defense

mechanisms as an "ego function." Easy to read, succinct, and full of actual illustrations of defense mechanisms in action.

Hackett TP, Cassem NH, Wishnie HA: The coronary care unit: An appraisal of its psychologic hazards. *N Engl J Med* 279:1365-1370, 1968. The psychological environment of the coronary care unit. Patients who used major denial had a better hospital course than those who were not using much denial.

Reiser M: *Mind, Brain, Body: Toward a Convergence of Psychoanalysis and Neurobiology*. New York, Basic Books, 1984. Chapters 7 and 11 deal with defenses as they are conceptualized in psychoanalytic theory.

Sachar EJ, Kanter SS, Buie D, et al.: Psychoendocrinology of ego disintegration. *Am J Psychiatry* 126:1067-1078, 1970. In a psychoendocrinological study of four acute schizophrenic males, the authors found great activation of the adrenocortical hormones when the defense mechanisms were failing. When defense mechanisms were functioning, even if they were pathological defenses such as projection and delusion formation, the hormonal activity was not increased.