Learners and teachers:
The application of psychology to second-language acquisition

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The successful acquisition of second languages depends as much on good psychology as it does on sound linguistics. Both teaching and learning can be enriched by understanding and applying basic psychological principles.

The speaking and reading performance of second-language learners has received a great deal of attention in areas of applied linguistics such as conversation analysis, speech production analysis, oral testing research, classroom interaction analysis, and task-based learning research.(Ellis, 1994). In addition to linguistic variables, researchers have examined psychological determinants of learner achievement in speech performance, among them "individual difference variables." These relatively stable learner characteristics—including language aptitude, motivation, and personality—have been found to exert a pervasive influence on various learning behaviors, including the learning of second languages. (See, for example, Arnold 1999; Dörnyei 1994; Ehrman 1996; Leaver 1998).

Less attention has been given to interpersonal factors; the most comprehensive treatment of this dimension is Ehrman and Dörnyei's (1998a) book, *Interpersonal Dynamics in Second Language Education*, on which much of this chapter is based.[1]

Psychology: Understanding—and changing—individuals and groups

Psychology is both a branch of science and a set of approaches to healing. As science, it accumulates and interprets observations, experimental and natural. A psychologist seeks regularities of human behavior that can be described and predicted. The prediction can then be tested on large numbers of cases, leading to the replication—and refinement—of findings. When applied to individuals, the subject matter of psychology is regularities in cognition, affect, and personality. In social psychology, the phenomena in question are the

interactions of human beings with each other. The attempt to predict behavior in statistical, aggregate terms is referred to as *nomothetic* investigation. (Many of the specialized terms used in this chapter are defined in appendix 1.)

Clinical and counseling psychology, by contrast, represent efforts to understand individuals. They are not necessarily scientific in the sense of enabling us to predict behavior from one individual to another. Instead, they help us first to understand and then to initiate changes in behavior. As science, the inquiries of clinical and counseling psychology are "single participant" investigations, a type currently less popular than statistically normed large-group studies (Morgan and Morgan 2001). The focus is the individual, who is understood to be unique. When the individual is a unique field of study, the approach is called *idiographic*.

Work on groups follows the same division between the nomothetic and the idiographic. Efforts to understand how groups work—especially small groups of the sort found in classrooms and organizational work units—are part of social psychology. Group theory is an outgrowth of efforts to help people change and is thus also in the clinical-counseling tradition. To help people change, it is necessary to develop models of their behavior, which, in turn, gives the modeler some ability to predict the behavior of other people. Such models are based on observations—of what individuals say, of their attributions (their beliefs about others' motives and intentions), and of their behavior. Some models—including those discussed in this chapter—have proved so useful that they are widely applied in work with many individuals.

Metaphor in model building

In coming to a nomothetic understanding of individual and interpersonal processes, psychologists—particularly clinical and counseling practitioners—often use metaphors and analogies as they build hypotheses and interpret observations. Some of the psychological concepts addressed in this chapter are extended metaphors that theorists have developed to make sense of human behavior, rather than hypotheses derived purely from measurable phenomena and testable under laboratory conditions. Many come from the protracted process of constructing and construing life narratives during long-term psychotherapy.

These extended metaphors explain the behavior of individuals and groups so well that they have persisted as the bases of disciplines ranging from psychotherapy through literary criticism to organization development. Some—such as Sigmund Freud's ego, id, and superego—are so powerful, so useful, that they have become nearly axiomatic in Western culture. As the foundation for constructive interventions in the functioning of individuals, small groups, and organizations, they can also serve our efforts to understand the psychology of second-language teaching and learning.

Multiple perspectives on learning

When histologists examine a piece of tissue, they may look for a variety of different structures. To reveal some structures they may use a purple stain; for others a blue or yellow chemical. *The tissue is the same*, but the stains and the structures they reveal are different. Similarly, when we look at various structures in the tissue of human behavior, we must use a variety of stains or lenses. Some structures show up best when we use one theory or model as our lens—others stand out more clearly through another theory or model.

In the words of philosopher, psychologist, and linguist Alfred Korzybski, "the map is not the territory." A given territory may be charted in various maps focusing on different aspects: political boundaries, population density, physical contours, tourist attractions, transportation lines, and so on.

Similarly, in the learning process, people interact at several levels. The most common are:

- Within the individual (intrapersonal processes)

- Between two individuals (dyadic processes or dyadic relations)

- Among members of a group (group dynamics)

- Between groups (intergroup dynamics)

All of these levels of interaction are important to understanding what goes on in classrooms—and in other learning settings. Inasmuch as groups are composed of individuals, intrapersonal processes are an important factor in all interpersonal processes. Group dynamics can reflect behavior that is also describable in individual terms, such as dependency, fear, and rebellion. Any of

the four levels—intrapersonal, dyadic, group, and even intergroup—may be at work in a class of language learners.

For example, consider Adam's description of a classroom that was difficult for him.

> I felt that most of the students were afraid of talking. They were anxious when they had to speak. It often happened, for example, that the teacher asked somebody to volunteer to speak. And nobody raised their hands, nobody, although we had already reached the language proficiency level where we loved talking. But we couldn't raise our hand because of the atmosphere. I remember when a student sitting next to me was very scared of speaking. She said: "I wish I didn't have to speak now, because I don't know anything, and I don't dare speak, and what will happen if I make a mistake?" Our attendance became irregular, the same as any other boring lecture at the university that the students seldom attend. It was rare that the whole group was together. We stood by each other in such a way that the teacher was on one side, and we were on the other, because none of us liked the teacher. We often talked about this among ourselves; it was a common topic. But outside class, we reminded each other of the unpleasant experiences in class. We lost all initiative, and the group did not really organize anything for itself; we didn't move forward. The topics that were connected with the negative experiences, if they ever appeared in everyday life, the bad experiences appeared with them, so I would feel bad and not really feel like talking about them. (Ehrman and Dörnyei 1998a, 3–4).

Adam's description of a demotivating class has references to all three levels of interaction. At the individual level, Adam speaks of how he dislikes the class and the topics that came up in it. He describes ways the students (as individuals) would "defend" themselves against unpleasant feelings. We saw a dyadic interaction when an inhibited student told Adam about her fear of speaking up; a series of dyadic interactions occurred between the teacher and each of the students. Among the members of the group, we saw avoidance and a kind of negative cohesion fueled by dislike of the teacher.

Another category of multiple perspectives is the observer's experience: Sometimes it is appropriate to deal with experience logically and analytically;

at other times, a more free-floating approach is needed. Both are legitimate perspectives and ways of knowing.

Let's look at a small language class in which interpersonal processes have gone awry. Nancy, an adult learner, is preparing for service overseas. Because some of her classmates will also work in the same city and office, it is important that they maintain a relationship with each other. Nancy interacts extensively with three of these students—Betty, Charlie, and Terence. Her learning is not going as well as she would like.

> I've really been having a hard time lately. Sometimes I just can't even concentrate enough to hear what's going on in class. There have been days when I've gone home so upset that I can't study. I was able to pull myself together enough to come see you, but the problem is still there and not getting any better. I feel really hindered and inhibited by Terence and Betty. They're competitive and aggressive, and I feel intimidated. When it is their turn to speak, especially when they have prepared material, they just go on and on in non-stop monologues. (Charlie isn't much of a problem—he seems uncompetitive.) I've been trying to take some initiative to get a little time to speak, too, but I don't feel that I can be too aggressive about it, because I'll be working with one of these people when I go overseas. The whole experience is draining me, I don't want to study, and I know I'm being prevented from doing my best. (Ehrman and Dörnyei 1998a, 5–6)

This situation may seem quite familiar to many teachers. All four students have the ability to learn and were motivated to learn when they began the program. All have been working hard and have consulted with the teacher. They have been diligent in following suggestions about how to learn, but each student tells a tale of frustration; Nancy's is only the most recent. The teacher shows dismay about the progress of the class, because the interaction of these four is affecting all. Nancy, Betty, and Terence are intensely competitive; Charlie has withdrawn.

What's going on in with these students?

We can view these four learners as a problem subgroup; as four individual students from the perspective of the teacher; as four individual students from the perspective of each of the students; as a group of four

interacting students; as a group of four students and a teacher; or even as a group of four students and all the teachers who have worked with them. All the points of view are legitimate, and the teacher or other observer needs to be able to work with each of them.

Furthermore, each individual in the group of four carries with him or her all the other identifications and groups to which he or she belongs. For instance, Charlie is a military officer, with all that implies both to him and to his classmates and teachers. Betty and Nancy are diplomats, and Terence is a business executive. Not only do they bring these occupational identities with them—they also have individual histories related to gender, ethnicity, and education.

The four-person group shows little cohesion. There is potential for subgrouping, with the two females (both foreign service officers) possibly forming a kind of alliance, and the male nondiplomats forming another. Terence may become a scapegoat because he does not fit into either of the other alliances.

In another individual or group, a different set of dynamics may be salient. In that case, it may be appropriate to examine the key defense mechanisms in use. For yet another group, the role played by the teacher and the effects of that role on the group may be the key approach. For instance, Adam's account suggests that the teacher played an important part in making the classroom unsafe for risk-taking.

Any behavior has multiple functions. A joke may be a way of establishing a connection with another person, or it may represent hostility. It may serve as a defense against anxiety; or it may be a bid for group leadership. Because almost any act or behavior can be interpreted in multiple ways, and because most behaviors have meaning simultaneously at the various levels we have described (intrapersonal, dyadic, group, intergroup—as well as the familiar unconscious, preconscious, and conscious levels), psychological theory considers behavior to be "overdetermined"—multifunctional and interpretable at multiple levels and with multiple meanings.

For members of a group or dyad, multiple perspectives can be a source of conflict. If two subgroups assume different perspectives on the same

situation, they will experience that situation differently—neither more legitimate than the other. To the bird watcher, a cat is a predator that endangers the avian population, whereas for the cat owner, the cat is a valued companion. If rigidly maintained , the two points of view could trigger a nasty argument. But if the proponents of the two perspectives can operate at the next level of abstraction, wherein the cat and the bird are both members of nature and the cat has natural functions both as predator and as companion, conflict can be managed. The issue then becomes one of figure and ground: for the bird watcher, the cat as predator is the figure in the foreground; for the cat owner, the cat as companion is in the foreground. In both cases, all the roles the cat can play are present as part of the overall context, but they are not of equal importance at all times.

It is a logical consequence of multiple perspectives that no one perspective provides the entire picture, but that the more perspectives one can manage, either simultaneously or in oscillation, the more complete one's experience and understanding can be. In the case of the bird watcher and the cat owner, the ability to comprehend and accept both perspectives widens the options and enriches the experience available to both.

When viewed with the foregoing comments in mind, case material can be understood from a number of points of view, all of which may be valid. From each point of view, we can expect to find something useful.

The individual

The basic unit for applying psychological insights in second-language acquisition is the individual learner or teacher. Many of the processes that occur between and among people are driven by what happens in the minds of the individuals involved. Thinking and feeling processes characteristic of individuals are echoed in group interactions.

Everyone with whom we deal has a way of filtering events that is likely to differ from our own. We need to know, therefore, how to recognize and account for some of those filters. For example, here is Bernard telling us about his view of group learning:

I'm afraid I can't tell you about a good group. I've never been able to work in a group. In class I just take things in, and what I take in goes right out again. When I'm home, I start dealing with it again, reading my notes or the book, and then I remember the lesson. If have to be in a group, I want it so that everyone has their duty. In our present group, there are smaller groups within the big one, which I don't like because there are people I don't even know.... When I shut up and try to listen, then everyone else should do so, too, because then I can hear what the teacher is saying. And when I'm not interested, then who cares about what the others are doing? (Ehrman and Dörnyei 1998a, 25)

This statement tells us a lot about Bernard and the filters he uses when he thinks about his relationships. We know, for instance, that he does not like groups, that he has a strong preference—even need—to study alone, and that he is uncomfortable with too much fluidity in groupings. We might guess that Bernard experiences a threat to his personal boundaries from group interaction and uses avoidance and group structure to help him manage the anxiety the group arouses in him. We can understand Bernard's critique of a teacher who provided too little classroom structure in the light of this understanding.

The humanistic, psychoanalytic, and other models

Models, or theories, can help us understand individuals and groups. Like the stains applied to laboratory tissues or the lenses used by a photographer, they can help us understand the Bernards, Nancys, and others who fill our classrooms. Even more important, they can help us understand ourselves.

Theorists look at human behavior from different angles, creating distinct maps of the psychological territory. Some of the most important maps are the humanistic tradition of Carl Rogers (1969, 1983) and Abraham Maslow (1968), the psychoanalytic tradition of Sigmund Freud and his followers, and the personality theories of Carl Jung. Later thinkers have built theories around ego boundaries, perceptual and cognitive styles, and other ideas.[2]

Much is made of the differences between humanistic and psychoanalytic psychology. The humanistic tradition emphasizes our capacity to realize our human potential, whereas in the psychoanalytic model our choices are

determined, or at least bounded, by our responses to past events. But both approaches allow us to work productively with the same material.

A humanistic psychologist might say of Bernard, for instance, that he is not very comfortable in his world, that he lacks choices about how to make use of his classroom opportunities. Ideally, he could choose freely and independently to work with others in his class, but so far he appears to have chosen to limit himself to working alone. Bernard may be reacting to an experience of the group as dangerous and therefore mobilizing all his resources to avoid peril. No wonder he can't remember much and has to go over it again when he is alone. To a humanistic psychologist, Bernard would seem far from self-actualization in this domain of his life.

To a psychoanalytic psychologist, Bernard may well be replaying (unconsciously) difficult experiences from his childhood, such as intrusions on his privacy or even on his thinking by parents or others, well meaning or not. He may well have had a great deal of friction with siblings that constantly affects his relations with others. He appears to cope with interpersonal anxiety by avoidance and rigidity, and sometimes even by turning his thinking off ("what goes in comes right out again"). His defense mechanisms in this situation have become so powerful that they render him dysfunctional in a group learning setting.

Psychoanalytic thinking is among the richest sources of insight into human behavior. Its theory of defense mechanisms, explored in the next section, is especially useful for understanding classrooms. Some of the other models discussed below, such as leveling and sharpening, have their origins in the branch of psychoanalysis known as ego psychology, which sought to learn about and enhance affect-free ego functioning (Tyler 1974).

What are defense mechanisms?

The concept of defense mechanisms originated in Sigmund Freud's theories (1894, 1923, 1926) and was systematized by his daughter, Anna Freud, in her classic book, *The Ego and the Mechanisms of Defense* (1966). She introduces the construct as follows:

> The instinctual impulses can no longer seek direct gratification—they are required to respect the demands of reality and … conform to ethical and moral laws by which the superego seeks to control the behavior of the ego. Hence these impulses … are exposed to criticism and rejection and have to submit to every kind of modification. Peaceful relations between the neighboring powers are at an end. The instinctual impulses continue to pursue their aims with their own peculiar tenacity and energy, and they make hostile incursions into the ego, in the hope of overthrowing it by a surprise attack. The ego on its side becomes suspicious; it proceeds to counterattack and to invade the territory of the id. Its purpose is to put the instincts permanently out of action by means of appropriate defensive measures, designed to secure its own boundaries. (7)

Anna Freud's metaphor vividly illustrates the conflict underlying defensive behavior. The conflict between wish and reality (or morality), the anxiety engendered by that conflict, and the development of defenses all take place unconsciously. Our conscious mind recognizes them only through aftereffects such as finding that we have forgotten something or discovering distortions in our perceptions. All defense mechanisms entail some level of distortion of our perception of internal and external reality. Some—such as denial—bring massive distortion. Others, such as anticipating likely events, distort perception only slightly.

It may be that human beings cannot tolerate unvarnished reality—whatever that may be. In any event, no one is subjected to it, because we all manage our personal realities through our constellations of defense mechanisms, coupled with social supports and cognitive strategies such as planning and rehearsing (Vaillant 1993). Because they are closely linked with feelings, defense mechanisms are usually difficult to change by an act of cognition.

> The ego creates involuntarily, and what it creates, it defends and regulates. The ego brings order out of chaotic feelings and yet at the same time distorts inner and outer reality. Paranoids cannot become altruists by an act of will. But, through therapy, maturation, and loving relationships people learn more mature styles of self-deception. (Vaillant 1993, 103)

The common properties of defense mechanisms are summarized in figure x.1.

Figure x.1.   The fundamental properties of defense mechanisms

Defense mechanisms are …

- A creative synthesis of original, idiosyncratic perceptions, not mirror images of reality
- Unconscious—the behavior they generate is usually involuntary
- More often healthy than unhealthy

They …

- Distort internal and external reality
- Distort the relationship between feelings and ideas and between subject and object
- Often appear unusual or surprising to everyone but the user of the mechanism

Over time, defenses may become more mature, leading to increased "health."

Source: Adapted from Vaillant 1993, p. 17.

It is important to distinguish between defense mechanisms and defensive behavior. Behavior can be observed and described, whereas defense mechanisms are constructs inferred from behavior. Those constructs have acquired considerable validation through research (Cramer 1991, Vaillant 1992) and clinical practice, but it is still helpful to keep in mind that when we talk of repression, passive aggression, sublimation, and so on, we are not describing tangible things but are making inferences using a theory of psychic function and a set of metaphors.

Defenses in the classroom

Vaillant (1977, 1993; Vaillant and Vaillant 1992) groups defense mechanisms in order of the degree to which they involve distortion of reality, with "psychotic defenses" involving the most distortion and "mature defenses" the least. "Immature" and "neurotic" defenses fall in the middle (appendix 2).

Individuals can be classified roughly according to the type of defense they tend to use. Vaillant and Vaillant (1992) suggest that such styles are at

least in part independent of environmental influence. Research with several populations has shown that earning power, life satisfaction, and other measures of achievement are correlated with more mature, less distorting, defensive styles.

Psychotic defenses are very unusual in everyday life except under the special circumstances of dreams or in very young children. Most of us use and observe in others a variety of immature, neurotic, and mature defenses. These are the ones we can usually expect to encounter in the classroom.

Observation and analysis of the predominant defenses of individuals and classroom groups can give us a great deal of useful information. Nancy's description of her difficulties says quite a lot about her defenses. She appears to use several defense mechanisms at the immature level: dissociation (she can't concentrate), hypochondriasis (she gets so upset she can't study, she feels intimidated, she doesn't want to study, and she fears being too aggressive about speaking). Because her classmates perceive her as aggressive, her description of Terence and Betty as aggressive and competitive may involve projection.

If Nancy's classmates are indeed behaving as she describes, Terence and Betty are acting out (by being competitive and aggressive) and showing passive aggression (by indulging in nonstop monologues). Charlie may be using passive aggression (he seems uncompetitive).

When Nancy "pulled herself together" to see the interviewer, she made use of some of the neurotic and mature defenses. Nancy's description of herself as a high-functioning professional outside the language class is probably not far off the mark. During the interview, she showed some of the qualities that contributed to her success—drive, a sense of humor, some empathy, willingness to look at herself objectively, and ability to use help from the interviewer. These observations suggest that, when not under the stress of intensive language learning, Nancy uses mature defenses like humor, suppression, anticipation, and altruism (empathy). In class, therefore, she is probably undergoing a temporary regression in which she has less access to mature defenses than she would if she were under less psychic pressure.

To the degree that individuals can be typed by the mix of defenses they use (keeping in mind that everyone uses some of all three nonpsychotic categories), Nancy probably would come out as more adaptive than her behavior in class suggests.

Eva describes a relatively mature array of defense mechanisms.

When I had to give a little lecture in class, I wrote out about 200 words. I wasn't very anxious about the presentation. The others were interested. The reason I wasn't anxious was that I was really talking to them. What's more, I was proud of myself that I could talk in front of them about this [complex] topic. Anyone could ask questions. We selected the words [to focus on] together. What we didn't do in pairs, we often did together. It never happened that half of the class would suffer from boredom while the other half was active. When the teacher brought in some unusual material, it was fun to see how everyone reacted....We knew there would be someone who would say something silly, and also someone who would say clever things.... People smiled— this was quite characteristic, even from the end of the very first lesson. And the teacher was smiling, too. And sometimes it turned into laughter. Indifference was out of the question.... Out of class, we started by working in pairs, but then we just went up to each other, because there was someone sitting there whom you liked. (Ehrman and Dörnyei 1998a, 3)

Eva describes anticipation (she wrote out 200 words), suppression (she wasn't anxious), some altruism (she interacted with the students), sublimation (she enjoyed the complex topic), and humor (smiles and laughter). In addition to describing her own use of these adaptive defenses, Eva indicates that their use was characteristic of others in the class as well.

Nancy and Eva use the neurotic defenses, too, just as we all do. For instance, Eva's description of not feeling anxious may represent intellectualization (isolation of affect) if she was unconscious of (or ignoring) her feelings. In the context of her other behavior, however, it seems more likely that she experienced the feelings of anxiety, but put them aside temporarily— an example of suppression, a mature defense.

Not only is Nancy having a hard time, so, apparently, is the class. Learning groups, too, can be characterized by the predominant defense

mechanisms they use. For instance, in Adam's class, there appears to have been a great deal of projection and splitting, which Vaillant describes as neurotic defenses.

Individual differences

It is a truism that no two individuals are alike. It is also true, however, that large numbers of people show systematic variations in behaviors of various sorts. The study of such systematic variation in human functioning lies at the heart of the study of "individual differences"—a subfield of psychology. This name is somewhat misleading, since the subfield focuses on finding generalizations across individuals.

A basic unit of individual differences is the *trait*, a characteristic that can be recognized across people. Traits may be physical, such as blond hair, or behavioral, such as curiosity. They can be grouped into higher-order categories as well. For instance, gregariousness, oral expressiveness, and impulsiveness are sometimes clustered together as "extraversion." These higher-order clusters can then be organized into taxonomies—or typologies—into which individuals can be placed.

Areas of human function addressed in such taxonomies of individual difference include perception, cognition, affective processes (such as motivation and anxiety), learning styles and strategies, personality, and interpersonal style. Many of these categories affect learning. (For a thorough review of categories of individual difference in the context of second-language learning see Ehrman 1996, Leaver 1998, and Ehrman and Leaver 1997 and 2002.) There is overlap among the categories of individual difference. Tolerance of ambiguity, for example, can be mapped in terms of personality, interpersonal style, and learning style.

Personality variables

Humanistic and psychoanalytic psychology teach us that clusters of defense mechanisms recur within individuals and groups. The patterned recurrence of such clusters forms the basis for the science of individual differences and for

two other theories of variation in personality that have important classroom applications—psychological type and ego boundaries.

Psychological type. Carl Jung's theory of personality, like Freud's, posits the existence of deep unconscious processes, many with cultural and cross-cultural roots. The portion of Jung's theory that has proved especially useful in learning settings, however, is his model of consciousness, which is based on the idea of psychological type. In Jung's model, psychological activity can be described in terms of three bipolar dimensions.

The first dimension—extraversion/introversion—expresses the individual's attitude toward the world and the direction in which his or her energy flows—either inward or outward.[3] The two other dimensions express mental function. Sensing/intuition represents the individual's preferred method of taking in data, and thinking/feeling describes how the individual comes to conclusions.

Individuals select one pole on each dimension as the basis for conscious functioning; the other poles remain a part of unconscious function (Jung 1971). Myers and Briggs later added to the theory a fourth dimension—judging/perceiving—that relates to the amount of external structure the individual prefers (Myers with Myers 1980; Myers and McCaulley 1985).

The sensing/intuition scale is especially important to learning, because it yields important information about the direction of students' interests and their attention to subject matter. It can also be a guide to such interpersonal phenomena as initial attraction, building of sense of community, and desire to participate in activities together.

But the other dimensions are useful as well. The judging/perceiving scale relates to tolerance of ambiguity, which is vital to learning and can affect interpersonal tolerance. Extraversion/introversion expresses an individual's readiness to make new acquaintances and therefore the speed with which the individual will become part of a group of initially unfamiliar people. The thinking/feeling dimension has a considerable impact on the relative importance of task achievement and interpersonal harmony in the individual's life. "Thinking" types give priority to the former, "feelers" favor the latter. One can imagine how groups whose norms are set by people who prefer to function

through feeling might differ from those whose norms reflect the task orientation of thinking types (Ehrman 1996).

Ego boundaries. Another important personality variable—ego boundaries and the closely related concept of tolerance of ambiguity—is derived from the world of ego psychology in the Freudian tradition. People vary in the fluidity of their mental categories, especially those that relate to their identity, their relations with other people, and their ways of perceiving the world.[4] Too much such fluidity can be pathological; in fact, some psychological disorders involve an inability to maintain a stable sense of identity. Contrariwise, individuals whose identity is too stable and compartmentalized may have little adaptive flexibility and therefore lead constricted lives. Most people vary within a range of normal function, which is what we describe here.[5]

Flexible ego boundaries tend to be related to disinhibition, empathy, and the ability to take in another language and culture. Individuals vary in the amount of such openness. Rigidity in mental categories is clearly related to intolerance of ambiguity: if mental categories must be kept apart, there is likely to be little room for overlapping or apparently contradictory concepts. In contrast, those who tolerate ambiguity are likely to have much less difficulty experiencing themselves in a variety of ways and seeing the world through the eyes of other people (Ehrman 1993, 1996, 1999; Hartmann 1991).

Many people who tune out much of the world's ambiguity lead well adapted, successful lives. They are the businessmen, lawyers, doctors, and plumbers of our society. But they are likely to feel some resistance toward learning that requires them to tolerate ambiguity, suspend identity boundaries, or "regress in the service of the ego" (through role playing and the like). Similarly, unless people with flexible ego boundaries accompany their flexibility with some element of internal structure, they can seem flaky and out of touch. Though they may play freely with subject matter they are learning or engage readily with others, they may have difficulty focusing on problems, devising analytic strategies, and thinking ahead. In their own way, they can be as rigid as their opposites, insisting that there are no blacks and whites, only shades of grey.

Perceptual and cognitive styles

Models of perceptual and cognitive style originate in two domains of psychology. One is the study of perception, where attitude, motivation, and mental set have been shown to affect perceptions. This is so because the mind processes perceptions using existing schemata, and incongruities may stimulate a subliminal cognitive process to make a satisfactory match (Tyler 1965). The other is the study of patterns of perception and cognitive organization referred to as cognitive controls, which grew out of the efforts of psychoanalysts to understand ego functions.

Research into perception and cognitive controls has spawned a variety of typologies that purport to classify the ways we experience the world (Tyler 1965). Among the important dimensions that appear in such typologies, several are especially relevant to second-language acquisition.

- *Field independence* is a concept whose origin lay in the differential ability of subjects to perceive the vertical in a context of confusing visual cues. It was then associated with the ability of some personalities to articulate and differentiate their experience in an impersonal (or "global" or "analytic") way. Field-dependent personalities, by contrast, are seen as having more social orientation (Witkin and Goodenough 1981).

- *Field sensitivity*, a continuum leading to holistic processing and openness to outside information, was designed as a positive alternative to field independence (Ehrman 1996, 1997; Ramírez and Castañeda 1974).

- *Concrete processing* is dominated by immediate experiences, whereas *abstract processing* builds constructs from experience. Early ego psychologists believed that abstraction was needed to shift reflectively from one aspect of a situation to another, to keep several aspects in mind at the same time, grasp wholes and analyze them into parts, synthesize parts, form hierarchical concepts, plan ahead, envisage possibilities, and operate with symbols (Goldstein and Sheerer 1941, cited in Wolfe and Kolb 1984).

- On a continuum of conceptual tempo ranging from *impulsivity* to *reflectivity*, impulsives respond quickly to a task, seeking reward for quick accomplishment; reflectives respond more slowly and usually more carefully, seeking reward for avoiding error. Either can be accurate or

inaccurate, though the term "impulsive" is usually used for fast and inaccurate. Accuracy requires noticing and organizing relevant details; most learners need time to do this.

- The tendency to attribute success or failure to one's own efforts or to external forces, including chance, is expressed by the concept of *locus of control* (Rotter 1966). People who attribute their success to their own efforts are said to have an internal locus of control.

Until relatively recently, these cognitive and perceptual styles had not been applied in a systematic way to second-language learning. Ehrman and Leaver (Ehrman 2001; Ehrman and Leaver 1997 and 2002; Leaver 1998) have organized ten cognitive styles under a new second-order construct based on *synopsis* and *ectasis* (table x.1). The new terms were selected to avoid using any of the names of the constituent subscales for the larger construct. Synopsis represents a holistic, global approach; ectasis, the Greek opposite of synopsis, indicates something that is stretched out rather than condensed. The adjectival forms of the terms are synoptic and ectenic.

Table x.1 The synopsis-ectasis scale of cognitive styles

SYNOPSIS		ECTASIS
Field sensitivity *as learning style*: Learner prefers to address material in context and often picks it up "by osmosis." It relates to wholes that cannot be disassembled and can be compared to illumination by a floodlight that shows the whole scene.		Field insensitivity: Learner makes little or no use of the whole context and often excludes "incidental" learning. Responds best to material that is "out there in black and white."
Field independence *as learning style*: Learner prefers to separate material from context and finds what is most important—like a spotlight that focuses sharply on one thing.		Field dependence: Learner relies on context and does not select out what is important for focus. May prefer to have what is most important pointed out.
Random (nonlinear) processing: Learner follows an internally developed order of processing.		Sequential (linear) processing: Learner follows an externally provided order of processing.
Global processing: Learner attends to gestalts and the big picture, is aware of forests, not trees, and tends toward from top-down processing.		Particular processing: Learner attends to discrete items and details, is aware of trees, not forests, and tends toward bottom up processing.
Inductive processing: Learner goes from the specific to the general, generalizing from experience.		Deductive processing: Learner goes from the general to the specific, applying generalizations to experience.

Synthesis: Learner comprehends by assembling components into a whole.		Analysis: Learner comprehends by disassembling into components.
Analogue processing: Learner takes a qualitative or metaphoric approach to interpreting experience and makes frequent use of associations.		Digital processing: Learner takes a quantitative/literal approach to interpreting experience and tends to take things at face value.
Concrete (experiential) processing: Learner interacts with the world directly and learns through application, often physical, of knowledge.		Abstract (theoretical) processing: Learner interacts with the world through cognitive constructs and learns from formal rendition of knowledge.
Leveling: Looking for similarities, learner often does not notice disparities and may seek to reduce them. Tends not to notice articulations within composites.		Sharpening: Learner notices disparities and seeks to explore and account for them. Tends to be aware of componential structure.
Impulsivity: Learner reacts quickly, acting or speaking without "thinking it through." Acts on "gut." Thought may follow action.		Reflectivity: Learner "thinks things through" before acting and often does not trust "gut reaction." Action usually follows thought.

Source: Ehrman and Leaver (1997, 2002)

Using the model with students has brought out what may be the most important distinction between the two variants. An ectenic activity represents conscious control of what synopsis accomplishes preconsciously. For example, random (synoptic) processing automatically generates a path through material using a series of immediate decisions that are based on the results of the preceding activity, usually without much conscious planning. By contrast, sequential (ectenic) processing relies largely on externally provided sequences of activity that students follow consciously and willingly.

Some of the ten subscales of the synoptic/ectenic construct represent categories that have been confused in the past—the most notable being the so-called global/analytic construct. In fact, global and analytic are not opposites. Global processing is the opposite of particular (atomistic) processing, and analysis contrasts with synthesis. The false opposition between the two has been the source of a great deal of confusion in applying cognitive-style constructs and doubtless a cause of equivocal results in research using these scales.

Affective factors and learner autonomy

Needless to say, individual psychology is also deeply influenced by affective processes such as motivation, anxiety, and self-efficacy. A considerable body of work on these processes now exists in the literature of second-language learning

and general educational psychology. Motivation and anxiety, in particular, have received a great deal of attention in applied linguistics in the last 15–20 years. Lately, self-efficacy and attribution are receiving more notice (Bandura 1993; Benson and Voller 1997; Ehrman 1996, 2000).

Autonomous, self-regulated learning is essential for development of fluency and accuracy both within and especially beyond the classroom. A primary responsibility of teachers, therefore, is to help students develop self-regulation along with their language skills. The second-language literature reflects an increasing awareness of this necessity, which began with the influence of Carl Rogers (1969, 1983). Stevick (1980) explores the implications of the balance between autonomy and control for language teachers and students. Pemberton and others (1996) provide a relatively broad overview of the issue, especially among the European language teaching community. Ehrman (2000) examines factors affecting student ability to self-regulate. Work by Benson and Voller (1997), Chamot and O'Malley (1994), Ehrman (1996), Macaro (1997), Oxford (1990), Rubin and Thompson (1994), van Lier (1996), Wenden (1991), and Wenden and Rubin (1987) deals with the factors that enable students to access learning strategies such as word learning, management of feelings, and planning. Ehrman and Dörnyei (1998a) and Macaro (1997) discuss the relationship between cooperative group experiences and learner autonomy. Ehrman (2000) addresses factors affecting self-regulation of language learners from the perspective of mainstream educational psychology. Coleman (1997) addresses cross-cultural implications of learner autonomy, which may be less valued or expected in some non-Western classrooms.

Learner autonomy and the self-regulation on which it depends constitute an intersection of cognitive and affective factors in learning. Recent work is beginning to focus on this nexus. Dickinson (1995) and Ushioda (1996) treat the role of motivation, and Aoki (1998) discusses the role of motivation and anxiety. Ehrman and Dörnyei (1998a) also address the impact of interpersonal and group phenomena on motivation, anxiety, self-efficacy, and self-regulation, including the role of the relationship between teacher and students in promoting or inhibiting student self-regulation and autonomy. Ehrman (1998) focuses on unconscious communications between student and

teacher, which are almost always affective in nature, and their effects on learner autonomy.

Beyond the individual

Dysfunctional interactions between teachers and students and among students can divert energy and attention from the task of learning a second language. By the same token, cognitive and affective learning can be substantially enhanced by adroit use of interpersonal and group dynamics, particularly in the teaching of modern languages, where much of the development of communicative skills occurs through participation in meaningful, lifelike tasks. In such circumstances, the quality and quantity of the interaction necessary for efficient task involvement are largely a function of the relationship between the participants and the learning context or climate (Ehrman and Dörnyei 1998a). Stevick (1980, 4) stated this succinctly when he said that success in second-language learning depends "less on materials, techniques and linguistic analyses, and more on what goes on inside and between the people in the classroom."

Interpersonal style

Humanistic psychologist Will Schutz (1958, 1967) posited three basic interpersonal needs: inclusion, control, and affection . Individuals vary in the amount of inclusion, control, and affection they usually want to give and receive. Schutz's typology is widely used to help people understand themselves and their place in organizational settings. The well-known FIRO-B questionnaire (Schutz 1958) measures the six variables in the typology.

Another important motivation that can affect a person's relationships with others is the need for achievement (McClelland 1966/1984). People with a high need for achievement seek situations in which they can gain a sense of mastery over challenging but manageable goals. They like to control outcomes—rather than relying on chance or external factors—and to have clear feedback on their performance. Need for achievement is not the same as need for power, however. The need for power has to do with control of others and

others' control of one, whereas the need for achievement is about work performance.

The short statements by the two students, Adam and Eva, illustrate classes in which the interpersonal dynamics work toward either a disappointing or a successful learning experience. Several elements affect students' motivation and the effectiveness of the two classes. The cohesion of the classroom group is an important factor in the willingness of the two students to take risks and to invest themselves in the learning task. In Eva's case, she felt encouraged to take speaking risks and enjoyed the company of her classmates both in and out of class. There was a sense of solidarity with the teacher, who was perceived to be on the side of the students. In contrast, in Adam's class, students would not take even small risks in class, did not much enjoy each other, and avoided class. Classroom topics became "contaminated" outside class, and the class was at odds with the teacher, who became an enemy.

Interpersonal relations, group dynamics, and learning

Learning is frequently enhanced by good interpersonal relations. Just as frequently it is hindered by dysfunctional interactions between teachers and students and among students, all of which can divert energy and attention from the learning task. How does this happen?

Individual differences play a role in group dynamics: social relationships, like any area of human activity, are subject to the effects of selective attention and processing of experience. For example, people who are aware of details relate to others differently from people who perceive in terms of wholes and focus on functional relationships. Witkin and Goodenough (1981) include a set of interpersonal styles in their field independence theory: field independence can be associated with a kind of task-oriented, independent, impersonal approach to people, whereas field dependence (operationally defined as the absence of field independence) can be characterized by a social orientation and interpersonal skill.

Individual differences, and the interpersonal processes in which they are expressed, can give a group an enduring if not indelible character or flavor. Although the individuals in the group may come and go, the effects of the interpersonal processes in which they engage survive any individual's presence

in the group. The individual students and teachers in the group, in turn, are profoundly affected by group processes. Thus it is that classroom groups achieve a stable existence and identifiable culture even as the make-up of the group changes.

That culture affects the learning experience of every student and the effectiveness of every teacher—now and into the future. Interpersonal processes can enhance motivation to learn other languages and cultures and to interact with speakers of the language, but they also can lead to massive anxiety about how one is perceived and accepted by others, anxiety that can interfere greatly with achievement.

Between individuals these processes can bring about cooperation that enhances the work of both parties, or they can result in friction and disaffection. At the level of learning groups, a cohesive, well-functioning group can promote enhanced self-efficacy on the part of its members and effective cooperation that harnesses member diversity for the benefit of all. A poorly functioning group can result in apathy and inefficient learning at best and, at worst, destructive psychological effects on the members and intense aversion to further learning. Between-group effects can be positive, with increased receptivity to the people and culture of the new language, or negative, in the form of rejection and aggravated negative stereotyping of the target language group. For more about interpersonal dynamics in second language education, see Ehrman and Dörnyei (1998a).

Fortunately, teachers, teacher supervisors, trainers, and students who understand what is going on in a classroom can substantially enhance learning effectiveness by adroit application of interpersonal and group dynamics. By changing the culture of their group they benefit not only the current members of the group, but also future members.

In the classroom: A teacher's point of view

Kim is an experienced and accomplished second-language teacher. Committed to enabling her students to speak English fluently and accurately, she believes that her methodology is generally the best and most current. She practices communicative teaching methods, maintains a pleasant, supportive atmosphere

in her classroom, and encourages risk-taking. What has been causing her some worry, however, is that her students seem persistently inhibited about speaking in class. She describes herself as baffled.[6]

Kim may not be aware of the research on interpersonal processes in second-language learning, such as the work on Counseling Learning of Curran (1972) and his associates; studies of the effects of socially situated learning (such as Lave and Wenger 1991); and work on social constructivism (Williams and Burden 1997) relating to interactions among teachers, students, and tasks.

In fact, speech situations are social contexts in which a number of interpersonal psychological processes are in action, at both conscious and unconscious levels (Ehrman and Dörnyei 1998a). Unconscious transactions are found in *all* communicative transactions and have a particularly powerful effect on learning. Group processes tend to be especially salient in classroom situations.

Two important interpersonal factors that affect learners, teachers and nonteacher interlocutors (such as people living in the country where the language is spoken) alike are:

- Social factors such as role and status distribution among participants, the state of group development in the classroom, and environmental factors such as the norm system in the classroom setting; and

- "Deep psychological" factors reflecting unconscious transactions such as transference (the replay of "scripts" developed in one's family of origin), defense mechanisms at both individual and group levels, and the interplay of interpersonal attachment patterns between individuals.

Kim might do well to examine the effects of these covert processes among individuals on the persistent dysfluency of her students. Perhaps her classrooms are affected by conflicts in a group that has not achieved cohesion, so that the students feel unsafe in taking oral risks. Perhaps her school or the surrounding community promotes norms that result in student inhibition, such as deep-seated assumptions about teacher-centered methodologies. Possibly the school and its community are experiencing disruption that has stimulated defenses at the group level that result in turn in fighting or fleeing from learning.

Kim is seeing a persistent pattern of behavior over time. Because groups vary widely, it may be productive for Kim to examine whether there is a disconnect between what she says she wants from her students—autonomy, security, risk-taking, active second-language use—and what messages she may be giving them unintentionally and unconsciously. Is she letting them know somehow that she will feel useless or unimportant if she is not at the center of all classroom interactions?

Ehrman (1998) and Ehrman and Dörnyei (1998a) describe a "learning alliance" based on unconscious communications between teacher and students that allows both to take risks and to suspend ordinary power relationships. The teacher contributes to the alliance by building a "frame" that promotes a sense of safety. Reliability, stability of time and place, and maintenance of appropriate interpersonal boundaries are parts of that frame. Could Kim be permitting disruptions in the classroom that break the frame of stability and trust so that her students will not take risks? Which of Kim's own relationships with her family of origin might she be replaying in her interactions with her students? Might those patterns interfere with her effectiveness?

Teachers, no less than students, have personal styles, needs, fears, and motivations that affect their effectiveness and the quality of their relations with a given group of students. Their roles are complicated by the demands of their leadership functions, and their leadership functions are complicated—or enriched—by the importance of student-centered approaches (Ehrman 1998). It is no wonder that teachers play a major role in the unconscious interactions—defensive or otherwise—that permeate their classrooms.

In conclusion

Social psychologist Kurt Lewin is widely quoted as having said that there is nothing so practical as a good theory. The multiple theories reviewed above can shed light on problems of learning and teaching. Second-language teachers, teacher-trainers, and researchers may approach the questions asked above by examining variables from the domain of individual difference psychology and the interpersonal worlds of social and deep psychology, whether at the

individual or class-group level. Once they have a working model of the situation they face, they are in a position to develop appropriate interventions. One large-scale, systematic application of psychological theory, an institutional learning consultation service, is described in Ehrman (2001).

Although closely related to communication, the psychological variables described in this chapter are essentially nonlinguistic. Nevertheless, they may interfere profoundly with language learning—or they may enhance it—in both cases through the communication choices made by instructors and, under the instructor's influence, by students.

Notes

1. Substantial portions of this chapter are drawn from Ehrman and Dörnyei (1998a).

2. Over recent decades, the literature on second-language acquisition has increasingly made use of insights from mainstream psychology (e.g., McDonough 1981; Williams and Burden 1997). Concepts from the work of Carl Rogers had a substantial effect on one of the best-known innovative language teaching methods, counseling learning/community language learning (Curran 1972) and, more generally, on the student-centered teaching methodology that gained prominence in the late 1970s (e.g., Bailey and Nunan 1996; Moskowitz 1978; Nunan 1989; Stevick 1990). Social psychology has influenced work on second-language anxiety (e.g., Horwitz and Young 1991; MacIntyre and Gardner 1991) and language-learning motivation (e.g., Gardner 1985; Gardner and Clément 1990, Gardner and Tremblay 1994). During the last decade the latter work has been augmented by further insights from educational psychology in a series of "reform articles" (e.g., Dörnyei 1994; Oxford 1996; Oxford and Shearin 1994). Findings from ego psychology (cognitive controls), study of perception (e.g., field independence), and the psychological-type theories of Carl Jung (1971) had considerable impact on efforts to define and describe individual differences and learning styles, many of which are treated, for example, in Ehrman (1996), Ehrman and Leaver (2002), Leaver (1998), and Reid (1995, 1997). Educational and cognitive psychology plays an important role in the work that has been done on learning

strategies (e.g., Chamot and O'Malley 1994; Cohen 1998; O'Malley and Chamot 1990; Oxford 1990; Wenden 1991; Wenden and Rubin 1987). Ehrman and Dörnyei (1998a) provide a thorough treatment of insights from clinical branches of the field that have much to say about what happens in classrooms, both directly and through their applications to small-group research.

3. By *extraversion*, Jung meant that the external world was attractive to and energized extraverts. Traits like gregariousness are often characteristic of extraverts, but they are not extraversion.

4. Individuals may have a variety of subpersonalities related to the roles they play. Most have some amount of consistency across roles and a set of stable "selves" based on firm beliefs, attitudes, and values and thus show some degree of consistency across roles. However, in certain social situations, they may well try out sharply differing approaches, using a variety of transient "selves" (Schein 1984). The fact that an individual's preferred mix of defense mechanisms tends to stay the same across many states of mind, provides another element of stability to personality when there is not too much press from life.

5. In clinical contexts, very permeable "boundaries in the mind" are considered a sign of dysfunction. A certain level of compartmentalization is needed to protect ego functions. When the ability to make distinctions between various psychic states is impaired, individuals may have difficulty telling the difference between fantasy and reality, self and other, various perceptions and memories, and states of consciousness. On the other hand, very thin ego boundaries can also be associated with great sensitivity and creativity (Levin 1990; Hartmann 1991). Among individuals who score one or two standard deviations above the mean for the general population in Hartmann's studies on his ego boundary questionnaire (1991), Ehrman (1993, 1996; Ehrman and Oxford 1995) has found some advantages for communicative second-language acquisition, as long as the student has the means to impose cognitive structure on his or her experience.

6. This material is adapted from Ehrman and Dörnyei (1998b).

Appendix 1   Some terms used in this chapter

conscious processes: thoughts, feelings, fantasies, and wishes of which the individual is aware

defense mechanism (psychoanalysis): an unconscious coping process to manage the anxiety generated by internal conflicts between wishes and impulses on the one hand and reality or superego processes on the other. Specific defense mechanisms are defined in appendix 2.

dyadic process: conscious and unconscious communications and actions between two individuals

ego (psychoanalysis): the collection of psychic process that both produce differentiated cognition about the individual's reality and modulate the strong feelings and relatively primitive cognitions from the id and the superego. Much of the ego is conscious.

group dynamics: conscious and unconscious communications and actions among at least three individuals

idiographic: refers to study of each individual as a unique subject of investigation (opposite of nomothetic)

interpersonal process: conscious and unconscious communications and actions between two at least two individuals or between at least two groups

intergroup process: conscious and unconscious communications and actions between at least two groups

intrapersonal process: : conscious and unconscious mental events within a given individual; often reflects internalized interpersonal processes

nomothetic: study of populations to seek generalizations (opposite: *idiographic*)

preconscious processes (psychoanalysis): thoughts, feelings, wishes, fantasies, etc. that are not available to consciousness but are near enough to the "surface" to be accessible through self-observation of behaviors like slips of the tongue, unintentional acts, dreams and daydreams, and associations among ideas and feelings

psychic determinism (psychoanalysis): the assumption that the behavior of individuals and groups is determined not only by physical circumstances and conscious will, but also by unconscious processes and motivations.

psychological type: Carl Jung's model of consciousness, comprised of three bipolar dimensions: one attitude toward the world, extraversion-introversion, and two sets of mental function, sensing-intuition (for taking in data) and thinking-feeling (for coming to conclusions). Myers and Briggs added a fourth dimension, judging-perceiving, that relates to the amount of external structure preferred in one's life.

scapegoating (group dynamics): establishment of a group member as the repository of undesirable characteristics, leading to persecution and even exclusion of that member.

unconscious processes: thoughts, feelings, fantasies and wishes of which the individual is unaware.

Appendix 2   Vaillant's hierarchy of defense mechanisms

Psychotic defenses

Used to reorganize the perceptions of a nervous system that is immature, asleep, poisoned, or emotionally overwhelmed, psychotic defenses can bring about deep changes in perception of external reality and may result in action, not just imagination. They are common in small children.

Delusional projection. Inner conflicts are externalized and given tangible reality. Reality testing is virtually given up. Delusional projections are often persecutory, with little or no wish fulfillment. In normal people, they occur in dream states.

Distortion. Beliefs and convictions may be contrary to reality; reality is often transformed to conform to one's wishes. May include delusions of grandeur, hallucinations, and replacement of unpleasant feelings by pleasant ones, such as delusional fusion with another. Normal children may concoct imaginary friends.

Psychotic denial. External reality that would be apparent to others is obliterated. A person with psychotic denial may actually walk into things, whereas a person with neurotic denial (dissociation) would walk around them. An everyday example: in the throes of deep bereavement, a person may set a place at the table for the deceased.

Immature defenses

Immature defenses are expressed in behavior characteristic of late childhood and adolescence. They are frequently stimulated by threats of too much intimacy or by its loss. Often dysfunctional, they are socially undesirable to the onlooker, but they do not stray far from reality. Except for dissociation, immature defenses are more common in childhood and adolescence than in middle age (except in cases of personality disorder).

Projection. Projection involves attribution of one's own unacceptable feelings or thoughts to another person. It includes severe suspicion of others, feelings of injustice, hypervigilance, and severe prejudice. The user of this defense maintains the perception of connection with the object of the projection, though that connection is distorted. Projection may include the related defenses of splitting, projective identification, and devaluation. A process of mutual identification may link subject and object.

Fantasy. Retreat into oneself and one's imagination, to the exclusion of others and external experience, characterizes the fantasy defense. Associated with avoidance of intimacy with others, fantasy may involve "primitive idealization" and, in normal life, daydreaming.

Hypochondriasis. Users of this defense transform reproach of others first into self-reproach (or "guilt tripping") and then into body complaints—pain, illness, neurasthenia. Vaillant includes in this category *introjection*—in which one experiences the characteristics of an ambivalently perceived person, especially in the form of physical ailment.

Passive aggression (turning against the self). In this defense, hostility, anger, or aggression are expressed through passivity—failures, procrastination, provocation, clowning to avoid competition, or "shooting oneself in the foot." In normal behavior, passive aggression often shows up in flirting.

Acting out. An unconscious impulse or wish may be "acted out" in order to avoid awareness of the associated feelings. This defense includes impulsive acts, temper tantrums, substance abuse, activity (in place of reflection or discussion), and self-inflicted injury. In everyday life, we sometimes yield to impulses and act out to dissipate tension resulting from deferral of expression.

Dissociation (neurotic denial). Painful thoughts and feelings may be replaced with pleasant ones by separating consciousness from real experience, or by temporarily modifying one's identity to avoid distress, both of which involve denial of internal (as opposed to external) reality. Expressions of this defense may include "blackouts," brief disavowals of responsibility for one's actions, counterphobia, dramatic acting, distraction, intoxication, and temporary omnipotent feelings. Dissociation can be employed consciously and often constructively—in meditation, self-hypnosis, and method acting, for example.

Neurotic defenses

Neurotic defenses modify the expression of impulses, wishes, and private feelings. To the outsider such expressions may appear as eccentricities but not socially unacceptable. Common in people of all ages, they may be elicited by acute adult stress or neurotic disorder.

Repression. When a thought or experience is repressed (forgotten), it may leave an affective residue that finds expression in symbolic behavior, indicating that repressed material remains in the mind but is unavailable to consciousness. Repression is common in everyday events like forgetting an important anniversary.

Displacement. Redirection of feelings toward a thing or person in which one has less investment than that arousing the feelings. Includes practical jokes, hostility toward someone other than the cause of anger, hostile wit, phobias, and some prejudice. Ethnic jokes are an everyday example of displacement.

Intellectualization (isolation of affect). When people think about matter connected with unconscious wishes in feeling-free, formal terms, they are intellectualizing those wishes and leaving the feelings unconscious. Intellectualization can include rationalization, ritual, obsession, isolation (thinking without feeling), undoing (saying or doing something to "take back"

an unacceptable wish), restitution, magical thinking, paying attention to the inanimate to avoid people, attending to external reality to avoid feelings, and focusing on detail to avoid the whole. A person diagnosed with a serious disease who talks about it "clinically" is intellectualizing.

Reaction formation. The presence of conscious beliefs, feelings, and behavior that are the opposite of an unacceptable wish or impulse indicate the formation of a reaction against that wish or impulse. Reaction formation includes hating something (such as ostentation) to which one is really attracted, liking a rival or an unpleasant task, taking care of someone when one really wishes to be taken care of, and identifying with an aggressor. Unselfish behavior is often a reaction to our perception of our own greed.

Mature defenses

Defense mechanisms that integrate reality, feelings, and interpersonal relationships are classified as mature. To the outsider, such defenses may seem to be "convenient virtues." They emerge with maturation, beginning in adolescence.

Altruism. Service to others that also gratifies the user is evidence of the defense of altruism. Altruism can include benign reaction formation, philanthropy, empathy, well-paid service to others, and doing as one would be done by. It responds to real needs.

Sublimation. Individuals who express their impulses indirectly and without adverse consequences are engaging in sublimation. Indeed, the consequences of sublimated impulses are often constructive. Sublimation may include expressing aggression through games, hobbies, or professional ambition, or showing physical attraction through courtship. The sublimator derives some instinctual satisfaction from the redirected expression of his or her unconscious wish.

Suppression. The ability to hold all components of a conflict in mind and postpone response, action, or worry is known as suppression. It involves a semiconscious decision to defer attention to a conscious impulse or conflict. Forms of suppression include stoicism, finding silver linings, keeping a stiff upper lip, and counting to ten.

Anticipation. Planning (with ideas and feelings) for future discomfort (internal or external) constitutes the defense of anticipation. Anticipatory mourning, goal-directed worrying and planning, and use of insight from psychotherapy are some of its forms.

Humor. Much humor may be viewed as overt expression of feelings without discomfort or unpleasant effect on others. It includes games, playful regression, a sense of the ridiculous, and treating the unbearable as if it were a game. Humor affords pleasure to both user and observer.

Adapted from Vaillant (1992, 243-248, and 1993, 40–72).

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