ELEMENTS OF INFLUENCE IN PSYCHOTHERAPIES

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This chapter is concerned with what all psychotherapists *have* to be doing, whether they say so or not. It attempts to tease out their unstated premises and the operations based on them. It adduces, in summary form, some scientific knowledge about these unstated therapeutic operations. Particular schools will be mentioned only in passing, as they are amply covered elsewhere in this *Handbook.*

Here we try first to supply some answers to a puzzle. The puzzle is how one person can move another. That one can do so shows the mutability of humans, while the fact that the change can last shows their permanent aspect. But why *do* changes last? Living protoplasm, seen under the microscope, is in constant flux—all bubbly ebb, flow, fusion, and division. On the other hand, the configuration of an individual human and his behavior has remarkable constancy and fixity, as we recognize when we meet an old friend. Most of the molecules in our friend's body (and our own) may have been replaced many times since we last saw each other. Yet moments after the reunion we find that the friend remains, to be enjoyed once more. And we move each other afresh to joy or sorrow, through mutual encounter, despite the apparent fixity of each of us.

Corresponding to the mutability of individual friends is the mutability of

groups—which is, of course, what group therapies depend upon. The temporary impact of a great dramatic or artistic performance is striking, as is the power of an individual charismatic demagogue. But the permanent ties that bind those who have shared an important group experience in the past have a power that is wondrous to behold. College class reunions may be the object of cynical carpings by the class skeptics; but to witness the welding of a group of sour, dispirited, individual military men—most of whom tried desperately to use any and every escape route out of the unit in question in the beginning—into a group sufficiently cohesive to bring them thousands of miles to be together twenty-five years later, is to evoke a sense of awe at the constancy of a structured allegiance, a shared experience. This is no romantic fantasy. In one ship's crew known to me from the day of the ship's commissioning, the group spirit went from disunity (expressed in the first month in requests for transfer by sixty percent of the crew), through a welding-together process during seven amphibious landings, to a unity expressed by an annual reunion and an ongoing active correspondence among crew members. And this is but one example of the constancy typical of many such groups of military comrades.

Structure, Change, and Creative Advance

Rigidity and pliability, flux that becomes structure—all psychotherapies depend on these qualities of human behavior. All of them seek change, but not

fleeting change. Some human behavior has well-nigh incredible rigidity and obduracy: for example, addiction; or the Iife-dance of a long marriage in which the partners move like the figurines of a Swiss clock despite what had seemed to be a curative change, years before, as a result of therapy. History abounds with examples of both constancy in the face of overwhelming pressure (our own and others' martyred heroes) and incredibly pliable gullibility (Hitler's seduction of previously decent burghers into genocide and suicide). It also abounds with the active creative advances of geniuses in every field of human endeavor.

Any theory of influence will be incomplete that does not account for both obduracy and pliability, stubborn resistance and open reception, constancy and creative advance. The settled past, with its determining limits; the unsettled present; and the hope of the novel future—any theory must consider these as struggling partners in the processes of therapy. And yet a curious feature of theories of psychotherapy is their proponents' myopia to one or another of these dimensions.

Some Blind Spots in Theories of Therapy

The school of psychotherapy most concerned with the settled past is, of course, psychoanalysis. Concepts such as fixity, psychic determinism, infantile genesis, instinct theory, transference, and so forth loom large in all

psychoanalytic theories. And there can be no doubt that pervasive patterns of feeling, thinking, and acting that derive from the patient's earliest life do intrude into the therapeutic operation. Freud, extrapolating backward from child or adult behavior, first outlined the main patterns of infantile life, which can be discerned in derivative but powerfully determinative forms both in children and adults. His daughter Anna Freud continued to consolidate and carry forward this pioneering work, along with many students and colleagues. With the advent of play therapy, Melanie Klein and her followers were able to draw back the curtain that failing memory has closed, for most of us, upon the preverbal phases of our lives. The Kleinians were able to assemble evidence, derived from play behavior, that permits a heuristic hypothesis concerning the mental operations of early life. Some therapists regard these formulations as settled conclusions; other therapists are far more tentative, or even reject them. In any case, analysts agree that play-and consultation-room behavior provides convincing evidence of powerful rules, guiding both internal and external behavior, that stem from earliest life—rules that require modification if therapy is to succeed, and that impede the therapeutic process in the form of resistances and defenses. Soft protoplasm often seems more like steel in its resistance to change in the therapeutic process.

Yet as Franz Alexander often pointed out in his teachings and writings, psychoanalysis as a treatment would fail totally were this conclusion to hold

sway in the consultation room. Treatment rests on the premise that fixity is only relative and change is possible. If new learning could not take place, therapy would founder. If present actions were not having their effect, how justify hundreds or thousands of analytic treatment hours? If hopes for future relief and increased novel enjoyment had only a trivial role to play, how account for the arrival of a patient in the first place, or his continuing participation in analysis?

Another example of prevalent myopia: many schools of psychotherapy strive to be "ahistoric." This means that they deplore the psychoanalytic emphasis on events in the patient's ancient past. These schools include the Rogerians, many transactionalists (but this is changing rapidly), and the behavior therapists (this is also changing with each passing year). They emphasize the "here and now" and leave aside the intrusion of transference reactions into the therapeutic relation, although they may concern themselves with past reactions to things and situations (as do behavior therapists, even of such single-minded purity of purpose as Wolpe, 1958). It is in fact possible to conduct a great many therapies without examining the curious compliance most of us show toward authority figures. Only when this compliance is absent does its relative universality become obvious—as when a well-planned program of desensitization, given in a most benign fashion, rips out its keel on the rock of a patient's stubborn, defiant, negative transference to the therapist of reactions to authority figures of the patient's

past.

Therapies that emphasize future growth, unrealized potentialities, new experiences, and the jettisoning of the fetters that trouble people—as gestalt therapies do—also ignore that which gives therapists the leverage to achieve their objectives: that is, they ignore the positive attitudes that the patient brings to the treatment situation from the past. These therapists are free-loaders on the earlier positive experiences that their patients have had with authorities. If not for these experiences, why would patients come, listen to therapists, do as requested—and come back again?

Myopia concerning one or another aspect of human change afflicts laymen as well as professionals. Leaving aside current controversies raging on the printed page, as to whether claims made for the effectiveness of psychotherapies (or psychiatric ministrations in general) have been overweening, it is still an everyday experience to confront patients and families who believe people cannot change as a result of psychotherapy. Yet these same individuals learned in some measure what love is about, as infants with their mothers; learned the English language, as previously inarticulate toddlers; learned mathematics and all manner of special skills in school; learned and adopted the customs, laws, fads, and fripperies of their youth and the prejudices of their communities; and accommodated to the idiosyncratic needs of their spouses and relatives. They forget the problems they have

solved, the struggles they have won. It seems never to occur to these skeptics that the psychotherapeutic situation is only a specially structured occasion for similar new experiences that in fact are often aimed at correcting faulty past learning or at opening new avenues out of the cages built from the accidents of a patient's circumstances.

Confusion about stability, change, and active creativity is thus common among both professionals and the general public.

Conflicting Premises in Theories of Therapy

Reduced to its essence: there is a paradox abroad, which on the one hand asserts that people can persist and resist change (a view held by all defenders of the status quo—for example, by church fathers of every faith), but on the other hand asserts that people can't help changing or being changed (a view held by all who wish to mold behavior—parents, teachers, therapists, politicians, statesmen, and so forth). Contained within this paradoxical antinomy are many premises and assumptions. Some are as follows:

1. The individual human has autonomy and freedom of choice. We are ultimately our own masters, and no one can change us unless we voluntarily comply.

2. The above is not true. The young are unformed, and one can teach

standards to children (and sometimes enforce them) that will endure a lifetime in guiding their behavior. The standards include one's mother tongue (with its uses and abuses), moral laws, religious beliefs, patriotism, and heroic loyalties that may have life-or-death force. And adults are not unchangeable; they are subject to brainwashing and other forms of coercion against their will.

3. The contradiction between the above two statements is resolved by two further assumptions: (a) humans are receptive to influence, and at least something is known of the mechanisms of interaction between people; and (b) though there are "givens" of behavior that are fixed by biology, such as instinctive and reflexive behavior, there is in all species—and especially our own—a margin of mutability (such as conditioning of reflexes, or learned behavior in general) that can supply the basis for therapeutic work.

4. Whatever the "givens" of behavior, one may confidently count on the individual organism's active capacity to synthesize, categorize, and act upon *new* experience in a fashion that is novel to its prior usage. We are not mere collections of reflexes, but are active in the creation of our own experience.

5. Influence on an individual or a group tends to become structuralized, in those influenced, as a permanent pattern of behavior. Otherwise therapy would be bankrupt.

These statements may strike the reader as excessively abstract and formal. Let the reader join in dialogues with therapists of various schools,

however, and various derivative slogans will be heard. "The past is irrelevant: only the present counts," is met with "Memory is essential for change"—as Santayana said, "those who cannot remember history are condemned to repeat it." The statement "We care nothing for what we can't observe—those theoretical constructs about what the contents of the Black Box are—we will stick to what we can record on videotape,"—or, in another form, "Beliefs, prejudices, transferences are all irrelevant: behavior is what counts," may be contrasted with "A change in the patient's internal dialogue—his beliefs about himself, the world, and others—will work change most effectively," or "Interpretation of the transference neurosis is the 'pure gold' of psychoanalysis."

Some therapies play down cognitive change and stress emotional experience; others stress changes in belief as crucial to therapy; still others equate the two in that they are deemed inextricable. Some therapies stress "modeling behavior" as a potent factor. Others consider imitative behavior in a patient as trivial and transient. Some therapies concentrate on one level of experiencing at the expense of others; other therapies stress confusion between levels of experiencing and communications as being the proper focus of therapy. And there are therapies that count upon expansion and creative advance almost exclusively: for example, those based on Zen Buddhism. Indeed, the catalog of slogans and emphases has filled many books.

Practical Impact of These Conflicts

The practicing therapist, and more essentially the student of therapies, is left with the task of trying to find order and reason among competing claims for varying techniques. At its worst the contention may impress the observer as a sort of Tower of Babel. This present discussion does not deal with the scientific evidence regarding the relative efficacy of one sort of therapy or another in treating any particular psychopathologic state, except to assert that such research is at a very early stage indeed. Because of the staggering complexity of the problem of evaluating outcomes—or even of descriptively comparing the differing therapeutic processes, therapists, and patients— research in this area often seems primitive (There *are* some recent accounts that offer the promise of solid knowledge, at the empirical level, of the results of various types of therapy. [Lieberman, 1962; Bergin, 1971]). In this chapter we instead seek light on how one theory can relate to another by means of knowledge of the mechanisms that underlie all types of therapy. Happily, there are glimmers from diverse sources that indicate some reconciliation among contending factions.

The Role of Reflexes and Signaling Systems in Influence

The conflicting premises outlined above concerning autonomous free will, on the one hand, and the fixity of instinct and reflex, on the other, have

long occupied the thought of philosophers; while throughout recorded history, those persons who wish to influence others have proceeded to do so unencumbered by concern over this debate. Just how these persons were and are able to accomplish their ends has become more comprehensible with the help of science.

We take for granted here the exploration of varieties of instinctual drives, the conflicts between them, their vicissitudes in development, and the defenses against them. All of these matters were studied by Freud and are still under scrutiny by his followers and by students of child development, primate behavior, and the behavior of lower mammalian or lower-order animals—that is, researchers who have many different theoretical orientations. Such work expands constantly. Freud's study of psychosexual development aided us in viewing certain deviant behaviors as products of the interactions of instinctual drives with cultural or familial norms, rather than as incomprehensible sins, but enlightenment has not stopped with the Freudians. Early psychic development and the processes by which it can be modified have been studied, in very young children, by Melanie Klein's group (1957) and, in the regressions seen in psychoses, by a variety of pioneering therapists (for example, Rosen, 1953). We can hope for further enrichment of our humanistic understanding from work with primates and other animals. Such work has already provided insights into instinctual drives of curiosity and problem solving, the desire for contact-comfort, and the vital role of

infant-infant affectional systems (See Harlow, 1953 and Ardrey, 1966 to mention only two examples.).

All these developments most likely are within the reader's experience, and they are further described elsewhere in this *Handbook.* Psychoanalysis has supplied the main *Weltanschauung* in the theory and practice of psychotherapy for the last several decades, especially in the United States; and it is assumed here that the reader is familiar with the enormous enrichment and power it gives to the theory of influence. The reader may even have shared with the writer the great human satisfaction obtained by both patient and analyst from its use. The following discussion aims at augmenting the range and flexibility of this predominant mode of influence by sketching out theoretical, clinical, and laboratory research that may not yet have come to the reader's attention.

Reflex Behavior

A reflex, such as the familiar knee jerk that follows the physician's tap on the quadriceps tendon, is a response to a particular sensory stimulus. In contemporary terms it is preprogramed, occurring outside conscious volition. Thought is short-circuited. Any instinctual drive involved—say, self-preservation—is also short-circuited. In fact, an awareness of drives and analysis of whether or not a stimulus holds promise of satisfying a drive tends

to inhibit reflex behavior (discussed below). Reflexes are biological "habits" that offer the economic gain of saving vital time, as in the righting reflex of a dropped cat, or the blinking reflex of a threatened eye. It is best not to have to think what one needs to do when one drops some distance to the ground unexpectedly, and the stretch reflex (the one that the knee jerk demonstrates) has kept many a human from breaking a bone. Reflexes are a form of instinct, but they differ from the haunting urges that persist in organisms as diverse as the insect drawn to its death by a pheromone (the external analogue of a hormone) and the human driven for years by persistent passions of love, rage, fear, or simple hunger. If being "driven" by instinct is compared to the sensation of being on a roller coaster (as distinct from driving one's car through traffic), then reflex is typified by that instantaneous complex of responses we show when we trip on a step.

Commonly we lump all reflexes together, but science has shown that reflex behavior has at least three main classes of response. One is of especial relevance to psychotherapies, though all three underlie any school of psychotherapeutic intervention. These classes have been studied for many decades in Russian laboratories, and the distinctions used here are those used by Russian theorists and experimenters. The classes are: firstly, the *defensive;* secondly, the *specific adaptive;* and thirdly, the *orienting* reflexes.

Clinical Applications of Adaptive and

Defensive Reflexes

Defensive reflexes protect us (and all animals) against injury. For example, the eye-blink reflex protects the cornea.

Specific adaptive reflexes keep stimuli within physiologically tolerable limits. When we emerge from our offices into blinding sunlight, the reflex contraction of the pupils of our eyes aids our vision. And, on a hot day, we are kept more comfortable by perspiring and by vasodilation, both of which increase heat loss from our skins.

These two classes may seem to the reader to be hardly worth discussing in relation to psychotherapy; they are "givens," unworthy of notice. Rut this is not so. All behavior therapies lean heavily on the work of Pavlov, who showed how these classes of reflex can be "conditioned" In' experience so as to produce a changed response. When we place a patient on a couch in psychoanalysis, we gradually condition him to relax the level of vigilance of his defensive and adaptive reflexes; and when we suggest relaxation and ease in hypnotherapy or in the desensitization maneuvers of behavior therapy, we are conditioning the defensive and adaptive reflexes of our patients in much the same way that Pavlov "taught" the dog to salivate to a bell instead of the sight and smell of food. More subtle interventions by a therapist, such as friendly support in place of the outrage the patient expects the therapist to show (on the model of previous conditioning), have unavoidable effects on

the patient's defensive and adaptive reflexes.

These two kinds of reflex behavior, together with the conditioning or deconditioning of their levels of activation, are so pervasive in all psychotherapeutic encounters that one might expect far greater mention of them in the literature of psychotherapy than is the case. Reflex behavior in fact is not foreign to psychoanalysis. Pavlov remarked in conversation that the idea of conditioning came to him from Freud's work, and the two fields may lie closer than the literature of either modern psychoanalysis or reflexology and behavior therapy might suggest.

The Orienting Reflex and Its Implications for Therapy

The third family of reflexes consists of the orienting reflexes (usually shortened to "reflex" for simplicity of reference, though there is actually a rich variety of responses). The orienting reflex is the automatic response to external or internal changes. We notice difference whether it is a loud noise or sudden silence, a bright flash or sudden darkness. Our organism responds quite automatically in ways that might be characterized as increased vigilance, alertness, or fine-tuned awareness. This hypervigilance and readiness for flight or fight varies in its bodily expression, depending on the sensory modality through which the change is perceived. First there is a general alarm, then a focused attention expressed in increased responsivity,

depending on whether the alerting signal is auditory, olfactory, visual, or tactile, and so forth. The alerting signal may even be internal: for example, one responds with alarm to anginal pain or even to an extras) stole (which may be experienced as a "skipped" heart beat). The patterns of response characteristic of differing sensory systems have been mapped out in considerable detail in the laboratory.

The orienting reflex differs from other families of reflex in important respects: it is set off by change in the world, whether positive or negative; and it subsides rapidly when signals recur in a steady fashion. These qualities contribute to the importance of orienting in all forms of therapy, since orienting responses occur in the first moments of therapeutic encounter and continue in both therapist and patient until the end of therapy. They are set off by silence as well as by words or gestures. They are automatic; and without mentioning them as such, we therapists use them to guide our work, both in diagnosing and in every hour of therapy. We note a pause in dialogue or an anxious rush of speech. In turn, a patient will orient to our silence or to our reassuring comment if either response differs from what is expected as a result of past experience. This is a source of therapeutic leverage; it can be lost, if the therapy is led into monotonous stalemate by monotonous repetition without inventive variation.

An example may make the above clear to those who are unfamiliar with

orienting. If one desires to make contact with some small wary animal, say a squirrel, one will approach very quietly and expose some appetizing object—perhaps a cracker spread with peanut butter—that will alert the squirrel and attract his interest. He orients to both the odor and sight of the cracker and also to the approach of a potentially dangerous large animal, a human. If one remains perfectly still, the squirrel may approach, most tentatively. He will risk a foray—a scouting expedition, as it were—but remains ready to scamper at the slightest warning. If one is patient and persistent, it takes only a short time for the squirrel to learn that it is safe to eat out of one's hand. In the intervening period, any change—even a loudly enunciated "Boo!"—will send the squirrel up a tree.

We humans are not qualitatively different from the squirrel in our approach to new and potentially dangerous situations. Therapy is always sensed as such; and though we have more complex cognitive capacities than small animals possess, the preciseness of the orienting reflex is astonishing in all vertebrates (see Sokolov, 1963). Humans orient precisely when they perform a symphony or play a football game, but the coordinated orienting of a flock of birds in migratory flight is hardly less intricate, despite the lack of the planning and discussion that is characteristic of human activity. And as our knowledge of events at the molecular level expands, we find that intricate and precise processes of response, adjustment, and accommodation seem to pervade all organisms—from simple bacterial cells recognizing dangerous

foreign protein molecules, to patients in analysis responding to expectant silence as if it were a mortal peril, or to heads of state assessing the events of foreign affairs. The three classes of reflex seen in physiological experiments and in clinical observations reveal modes of influence that have very general significance not only in all psychotherapeutic interventions but also in life processes of all kinds.

The Internalization of Reflex Response Patterns in Individual Development

Drives and reflexes can largely explain the behavior of lower organisms in response to influences from within and without. But even in lower organisms we require for our explanation a malleability of response that leads to regular change in behavior, rather than simple stimulus-and-response patterns. While our habitual modes of thought restrict the use of "concept formation" to higher organisms or even solely to humans (Webster on "concept (Harlow, 1953):" . . . a generic mental image abstracted from percepts . . ."), these modes of thought have been challenged in the many philosophical writings of Alfred North Whitehead (see Lowe, 1962, for a summary and references). Whitehead proposed that all organisms possess a mental pole of existence, however faintly we may discern it. For the present argument, suffice it to say that modern molecular biology (see Watson, 1970) demonstrates conclusively that immunological and genetic processes possess

capabilities closely analogous to (if not identical with) memory, and that even in the simplest bacterial cells this "memory" rests on the ability to form "a generic [mental?] image abstracted from percepts." Fine definitions must be left to extended analysis at another time; the central point to be made is that patterns of behavior are acquired—learned—in organisms far below man in the evolutionary ladder, and acquired in humans long before they possess the speech with which to tell anyone about them.

We need a clear idea of how such patterns change over time in the development of an individual organism. An egg (say a feline ovum) responds to a sperm in complex ways not characteristic of the suckling animal (the kitten) that results from the development of the fertilized egg. Still later, the nurtured kitten develops into a fine-tuned predator on birds and an expert exploiter of human vulnerabilities toward purring or meowing cats. As kitten turns into cat, we see the emergence of a new mode of influence: the cat's internalized map or plan of the way the world works, which overrides any simple hunger or fear responses. Cats learn their territories, the habits of their masters, their order in the hierarchy of other pets, the permissible rules of the household and its prohibitions, the proper use of a cat box, and so on. As cats slip slowly into senility, any cat owner can see the cat's increasing rigidity, irritability at change, and love of comfortable tranquility. At any age, then, the cat forms internalized models— syntheses of drive, reflex, and perception of the surrounding world—that endure for long periods and that

guide behavior, depending on the cat's developmental stage. Ordinary experience, not sophisticated experiment, led to the conclusion that one has difficulty teaching an old cat new tricks.

Thus in our analysis of the underpinnings of all therapies we must consider two additional factors besides the influence of drive and reflex: (1) the developmental stage of the organism that is to be influenced; and (2) the modification of instantaneous response into enduring regulatory patterns. Therapeutic interventions with very young children must be appropriate to the child's repertoire. The same can be said of adolescents, adults, and the very old. In all cases we must take cognizance of what was given the individual at birth, what has developed, and what has been learned. We entertain the notion that it is a mismatch between internalized models of the world and the experience of the therapeutic encounter (of whatever variety) that gives the therapist leverage, using the orienting reflex and the active synthetic processes that the mismatch sets going.

Levels of Awareness of Response Patterns

There is a further complication that modifies all therapeutic interventions. We know now that our organisms are arranged in many levels. The perception, orienting, and rearrangement of models occurs even in peripheral receptors like the cochlea or retina, let alone the levels of the

central nervous system, from spinal cord to cortex. Further, we know that all levels of perception, comparison, rearrangement, and recording respond to qualifying influences such as drugs, different levels of arousal, circadian rhythms, and the toxic disease processes that are responsible for deliria. Such influences occur accidentally, spontaneously, and regularly in life outside the consultation room. When used intentionally they supply a powerful set of tools and contribute in turn to many schools of psychotherapy, as in narcosynthesis, encounter experiences using adjuvant psychoactive drugs like LSD and peyote, and so forth. The orienting reflex in particular is sensitive to such drugs; that is, the tendency toward a decrease in response when an unusual experience is repeated is partially blocked when cortical activity is decreased by drugs or by drowsiness.

These complications ramify into diverse expressions. Orienting occurs and modifies behavior by means of forms of influence that we do not recognize consciously. One famous example will serve: the horse called Clever Hans, who appeared able to perform mathematical operations such as adding, subtracting, multiplying, and dividing. Only after very careful study by learned scientists did it become apparent that the horse was guided by minute cues given it by its trainer, who was himself unaware of his influence. Subliminal cues can similarly guide our own behavior—a fact known to advertisers and one used by all therapists, whether they are aware of it or not. In like manner, the use of the couch by the psychoanalyst deprives the

analysand of many subliminal cues while simultaneously dulling the cortical suppression of the initial "general-alarm" phase of the orienting reflex. The net effect is to make the patient more responsive to internal cues and less able to test whether the analytic situation is safe or not, thus contributing to the development of what analysts call the *regressive transference neurosis*—a state of childish vulnerability that permits the examination of long-buried modes of coping, with the aim of correcting these patterns.

Timetables of Theory-Building, Including Language Acquisition

New knowledge illumines sequences of orienting and rule-building from birth on. Clinical observation of the behavior of mothers with their newborn babies led to the increasing prevalence of the rooming-in practice, which allows mothers continuous contact with their babies in hospitals (instead of the practice, still followed in many places, of separating the two for a period of days or weeks). Clinical hunches have been backed up by sophisticated instruments that record the cries of newborn babies, even in the delivery room, and that will make possible an understanding of a baby's earliest communicational efforts. Thus far it is clear that in the first few days of the baby's life a mother-baby dialogue develops that goes far beyond such vague concepts as "mother instinct." Ingenious research has also been able to prove that babies only fifty days old can receive complicated messages, sort them

out, reach conclusions concerning their meaning, and alter their own behavior in accordance with what this proto-communication or proto-language tells them. (This refers to the astonishing research of Bower, 1966; 1971, using the peekaboo game with young babies. See Beadle, 1970, for a summary of this and similar research.) Babies can process symbols in the first weeks of life; our prevalent conceptions of them as creatures that are almost solely occupied with surviving and growing and that lack abstractive, cognitive capacities have been demolished. We still write articles that would have conceptual capacity appearing only at one, two, or three years of life; but such writings seem clearly wrong, as are our earlier visions of the inner life of the newborn.

The new knowledge afforded by recent research alters the content of our conceptions of the early months and years of life not so much as it provides assurance that categorizing and at least proto-concept-forming in infants have been demonstrated. The long controversies that beset psychoanalysis as to "whether the suckling child can be credited with the mentality of the four-year-old"—to paraphrase Glover (1956) in criticizing Melanie Klein's formulations—have at least in principle been laid to rest. Glover himself, with his concept of ego nuclei, acknowledged early structure; from there it is but a small step to concepts such as splitting, introjection, projection and the paranoid or depressive positions, and a variety of Klein's still-controversial ideas (1932). Any current formulation of any single mental

mechanism of infantile life may be in error, but it is now clear that complex discriminations, classifications, and operational theories do develop in the first weeks of life. Nor is this of only passing intellectual interest: the early defenses also appear closely intertwined with physiological and pathophysiological processes in later life (Lewis, 1965).

It is myopic to assign the beginnings of language acquisition to the second year of life. Complex nonverbal languages are well developed by then, and by the age of three or four, children can already have mastered the working use of three or four verbal languages—a mere refinement of their earlier virtuosity. In fact at least one expert, Joos, asserts (1964) that our estimates of the age at which a child masters grammar in any given language are similarly distorted, judging from our schools; he maintains that it is not "normal" to learn *any* grammar after the age of eight. We may later engraft refinements of grammar for "schoolroom" use, but our conversation will remain essentially unchanged beyond this age. (See also Bloom, 1964, for abundant evidence of the early flowering and subsequent waning of many assimilative talents and of the openness to influence.)

The assertion that nonverbal communicational rules (and proficiency with these rules) can be put in the same category as verbal performance gains support from studies of the congenitally deaf children who learn to manipulate symbols without the use of language (Lenneberg, 1967). It is

difficult to test their categorizing cognitive capacities, but the available evidence indicates that while thought processes may be hampered by the lack of language, thought is nevertheless clearly present in children who do not have the assistance of verbal language.

Today it is also clear that the influences resulting in language acquisition are thrust along by developmental processes that unfold both a desire for synthetic creation and an open receptiveness, of the sort embodied in the Freudian concept of the libido and served concretely by the lowly orienting reflex. The thrust toward conceptualizing can survive a massive physical insult (such as a hemispherectomy of the child's dominant lobe) and go on to push the injured child into acquiring nonverbal and verbal languages by the same sure steps made earlier, resulting in the re-acquisition of the whole gamut of symbols and the whole of the child's native tongue. (For reasons still obscure, however, the limit of this reacquisition coincides with puberty.) This thrust toward creative symbolization can also survive environmental deprivations that one might think would be almost as crippling as a neurologic injury. For example, the children of totally deaf parents learn to talk quite as well as children immersed in the chatter of parents who can hear and talk; and those foundling-home children whose main source of language models is the lowly television set can gain a surprising grasp of language in spite of the barren institutional setting in which they are raised and the mentally retarded attendants who may be the

only models available for them to mimic.

The Influence of Speech, the Second Signaling System

The reader may ask himself what all this has to do with influence in psychotherapies. True, the studies cited reveal a very early categorizing and synthetic thrust in children— earlier than we had thought, before this work was available to guide us. But the link between this work and any essential aspect of any psychotherapy needs further explication. Such explication, once more, is provided by an immense amount of information, for which we are in the main indebted to Russian researchers. This work is available in lucid, summary form in a small volume entitled *The Role of Speech in the Regulation of Normal and Abnormal Behavior,* (Luria, 1960) which puts forth the thesis underlying many separate pieces of research. Its author, A. R. Luria, himself one of the guiding lights of many Russian laboratories, may be destined to assume a stature comparable to that of Freud or Piaget; and in this volume he gets to the meat of his own and his colleagues' work.

The work follows a thought of Pavlov: we humans have the same sort of signaling system possessed by the famous salivating dog, and we can lay down rules in our brains that will guide subsequent behavior just as the dog was "conditioned" to salivate to the bell instead of to the sight and smell of food. *But we also have a second signaling system, with its own regularities and*

stored rules that guide our behavior: and this system is speech. The first signaling system is the one possessed by the babies with whom Bower played the peekaboo game, the system to which children who never learn to speak remain confined. Primates too, without speech, can store memories of many complex sequences of events as they occur, place them in their "files" of past occurrences, and guide their future behavior accordingly. But with the acquisition of speech, a new dimension opens.

If a three- to four-year-old baby is given a fairly complex task to perform by verbal instruction, it is easy to find limits on his powers to comply. An example from the Russian studies will serve: if a child is asked to watch a display panel on which various signals can be displayed, then told to squeeze a bulb (attached to a recording manometer) when a certain light goes on, and, finally, to release his squeezing pressure when the light goes off, the child fails. Persevering, random, uncoordinated behavior results. Yet if the same child is told, "When the light goes on, please squeeze the bulb and say out loud the' word ‘Go,’ and when it goes off, stop squeezing and say ‘Stop,’ " the child quickly masters the task. The act of speaking made the difference. Russian laboratories have mapped out the sequences by which the child progressively masters more complex tasks. Their evidence demonstrates that verbal processes are of immense importance in the regulation of all behavior, providing a control that is unattainable without them.

This persists into adult life, as two examples will show. First, let the reader recall looking up a number in a telephone book and then turning to the phone to dial: is it not well-nigh universal to find ourselves saying the number aloud? This is also the process involved when we say rote arithmetic facts aloud (or at least *sotto voce*) to aid ourselves in adding, multiplying, and so forth. Second, the Russians have discovered that the consequences of diseases that impair motor performance can be combatted by instructing patients to use just this route in order to regain control. Thus sufferers from Parkinson's disease, unable to perform repetitive motions, can regain that power if instructed to count—either aloud or silently—as each motion is completed.

The Two Signaling Systems in Psychotherapy

The two signaling systems just described supply the underpinning of any type of psychotherapy. The messages in the two are not always congruent and consistent; this will be explored below. It is also possible to do psychotherapy by nonverbal messages alone, as Frieda Fromm-Reichman demonstrated through the many hours she would spend sitting wordlessly and tranquilly beside a mute schizophrenic. (Many of our "newer" schools of therapy stress nonverbal types of contact—physical manipulations, nude therapy in swimming pools, and so forth.) Nevertheless all therapies make use of both signaling systems, striving by one means or another to work a change in the guiding rules that patients bring to therapy. Millimeter by

millimeter a psychoanalyst, using the second signaling system predominately, bends the rails on which the patient's engine runs. An exhortatory, evangelistic therapist strives to supply new guiding rails. So does a therapist expert in confrontational techniques. Even a nondirective therapist like Carl Rogers, while seeming to stay very close to what a patient is trying to say, will introduce inevitable minor changes in the patient's verbal messages with each such "reflection," since his "client" will hear the reflection coming from another person—and one who does not merely parrot the patient's statement.

The vital role of the second signaling system is further demonstrated in the developmental processes revealed by the studies both of Russian workers and of Jean Piaget and his group. Children four or five years old talk aloud to themselves. Piaget showed that nearly a third of what they say to themselves consists of instructions, injunctions, threats, prohibitions, and so on. They say "Johnny, if you touch that, mommy will spank you," or "Patty, if you cat that, you'll get fat." Russian data indicate that by the age of seven or eight, the role played by vocalized speech in the regulation of behavior begins to be taken over by internalized speech: the child in the transitional age period will not speak aloud, but recordings from glottal muscles show that the child speaks silently to himself. Thereafter, all through adult life, we humans carry on an internal dialogue in our heads, using *words* as we argue the pros and cons of a course of behavior. These words have extraordinary force for us all—as the

reader can demonstrate by searching the lexicon of shibboleths surrounding any prejudice, including those that have driven humans to war, pillage, lynching, and massacres throughout recorded history. Even today one need not search hard to find some of these slogans guiding people to heroic self-sacrifice or to bestial, uncaring slaughter.

The reason why words have such power to guide us in our daily rounds (including our lapses toward mad behavior) remained a puzzle until Piaget studied the process of speech internalization and its regulatory power. He showed that children make judgments about the nature of the world before they possess sophisticated scientific understanding; they enunciate these judgments to themselves, and thereafter they almost never examine the premises on which these judgments are based. Parents of seven-year-old children seldom bother to explore what their children are saying to themselves about the world. By eight or nine years of age such statements are no longer available for study, since by then they are *silent* instructions. A four-year-old child who concludes that the moon is following him, on the evidence of the movement of the moon's image behind a line of trees or houses as the child walks a twilit street, may tell his parents of his hypothesis (akin to the theory-building he may engage in later if he becomes a scientist). But this same child, at age eight or nine, will incorporate his conclusions outside his parents' awareness and thereafter be guided by what, essentially, a psychiatrist would label a delusion.

These arbitrary commands in one's internal dialogue make up what Freud collected under the rubric of the superego. Freud stressed the earliest, archaic forms of the internal dialogue rather than the seven- or eight-year-old's statements; these latter forms are recognized as determinative of behavior by various religious groups, including the Catholic Church. But whatever the age to which one assigns the origin of the magic mischief of childhood's dicta, it is of interest that these dicta recur in hallucinatory form in deliria and psychoses. As Freud recognized, it is as if we could hear once more the things our parents told us and warned us against, and could hear our own instructions, on their model, scolding ourselves.

Albert Ellis (1962) has been foremost in making the modification of these verbal regulations of behavior the core target of psychotherapeutic operations. His views have solid scientific foundation, as sketched above. Many parents whose eyes have been opened by Ellis' writings regret that their child's irrational self-instructions were not explicitly teased out of him as they were forming, instead of when these same self-instructions led the child into misery during adolescence or young adulthood. He could have been saved this suffering. The long, slow remodeling of such pronunciamentos that occurs in a psychoanalysis, or the labor of learning to talk to one's self more reasonably—the direct focus of such psychotherapies as Ellis' Rational Emotive Therapy and, to some extent, transactional analysis— could be rendered superfluous if parents attended to what their children say silently,

over and over, to themselves and condition themselves to accept as gospel, so that they become capable of righteous indignation and single-minded zealotry toward themselves and other people.

The Interplay of Signaling Systems

This is not to say that conditioning in the first signaling system is superseded by self-conditioning in the second system. Both systems guide behavior, and modifications of both systems form the focus of various therapies and of the influences of life outside the consulting room.

For example: most of us have some secret fascination with bloody mayhem, its infliction, and its results. This fascination, curbed by parental prohibitions, can re-emerge in our enjoyment of movies, television, or fiction, all of which often depict violent events foreign to our daily lives. Has the reader ever come upon a bloody accident? Some years ago, when train travel was more common, I spent some hours observing the behavior of men, women, and children who flocked to the front end of a train on which I was traveling when it collided with a car at a country crossing. Word had spread to a town several miles distant that three people had been killed. The train passengers sat waiting for order to be restored and discussed the grisly' event, on the report of those who ventured forward to see the car and a decapitated man. The car was, as it were, caught in the jaws of a Diesel-

powered version of a giant serpent, and a parade of spectators began to approach from miles around. All seemed furtive, excited with some guilt-ridden and macabre passion. Mothers holding babies in their arms hurried to see what had happened.

This urge to view bloodletting is as old as mankind. Roman games exploited this desire. We try to train our children out of indulging it, but the nonverbal, first-signaling-system urge remains. It can be modified by parents, and it can be gradually modified again in adult life by training procedures serving very different uses. Medical schools, for example, gradually prepare civilized adults to be able to cut open a chest and expose the heart of a living human; this is accomplished by a progressive desensitization over several years through exposure to dissected lower animals, followed by living mammals, and eventually by draped (and thus isolated) portions of human beings. The verbal, second-signaling-system messages that accompany these graded exposures are couched in scientific terms, and medical students show gradually lessening reactions as they pass through their studies. This has social utility. However, a similar course designed for evil purposes was part of the Nazi S.S. "training" of decent Germans, who were gradually encouraged to define progressively more brutal treatment of fellow humans as a "patriotic" service "for the Fatherland." The end result was the freedom to commit the atrocities of a Belsen or a Buchenwald. Such interplay of definition with behavioral response appears in laboratory experiments (Spiesman, 1965) in

which physiological responses to horrendous motion pictures vary with the tenor of the soundtrack describing the scenes: they are less pronounced with surgical, detached descriptions; more pronounced with "human," empathic involvement.

At any rate, this is not the place to explore the neuroanatomical and neurophysiological findings that have flooded into the scientific world in recent years, regarding an organism's coding, recoding, and recording of the nature of experience in persistent reference form for the guidance of future behavior. Fortunately, this body of findings has recently been summarized in the remarkable volume entitled *Languages of the Brain* (Pribram, 1971). Its author, the neurosurgeon-turned-neuropsychologist Karl Pribram, sets forth the evidence that over the years persuaded him that any stimulus-response, reflex-arc model of brain function simply will not do. Instead, he proposes a sophisticated cybernetic theory of feedback and feedforward mechanisms that have memory functions at their core. These functions are themselves very complex. Some are sharply localized in the brain, such as the receptors in the visual cortex for discerning contrast, edges, slant, and so on. Others, as Karl Lashley showed years ago, are widely distributed and are scarcely impaired by ablations of neural tissue, irrespective of anatomical location—for example, learned, complex behavior. Wherever it is stored in multiple locations, however, memory mediates behavior according to context and past experience. Pribram suggests that we should look to the holograph for our

model of memory, rather than to the file-cabinet model that earlier concepts of memory invoked. Whatever the model, the organism absorbs and processes experience in order to supply itself with guiding plans of temporal sequences of events (including its own behavior in relation to these events). Many signaling systems and many processing, intervening operations—including comparisons of the "now" with the "was," and a projection of "what might be in the future"—as well as many effector systems interact in the guiding of behavior.

Whether or not the reader's tastes and interests will take him into the exciting world that is unfolding daily in the laboratory, as the above suggests, it is implicit in any psychotherapeutic operation that the therapist has a plan, temporally organized, to change his patient's plans. This change in the directed plans guiding the patient's behavior involves the implicit assumption that events in the consulting room will become encoded as a persistent message in the languages of the patient's brain, guiding his future behavior by their import. For the convenience of exposition, the subsequent discussion simplifies the actual multiplicity of signaling systems, languages, memories, and plans. The reader will perhaps grant me this violence to the richness of any moment of experience—a handclasp, a kiss, a vehement denunciation—in the service of ordering the confusion that threatens attempted descriptions of the psychotherapeutic scene.

Clinical Applications of Both Signaling Systems

Various therapies attack the guiding program, the plans, that a patient brings to therapy, in both the first and the second signaling systems—those plans to which the patient has been conditioned in the past.

Behavior therapies, for example, provide the richest and most obvious variations of tactics. Messages in the second signaling system —verbal instructions—enable the therapist to induce a state of relaxation. Therapy may stop there, simply training a patient to relax rapidly whenever he feels tense. Or, after inducing relaxation, verbal signals may be used to suggest progressive hierarchies of frightening situations, from "least scary" to "most scary," all the while promoting easy calm and tranquility by means of other second-system messages. The extreme variation, once physical relaxation is achieved, would be for the therapist to use the verbal signaling system to evoke the most horrid experiences imaginable—a sort of extrapolation of what the patient says is *most* feared and avoided ("implosive therapy" [Stampfl, 1967]). The objective of all these techniques is for the patient to achieve a realistic and stoic acceptance of the world of the adult, stripped of the delusional exaggerations characteristic of childhood terrors.

The above serves as a paradigm for many other types of therapy. Thus in psychoanalysis the couch supplies an implicit tranquilizer, obviating the

training in relaxation that the behavior therapist first gives his patient. Repeated calm, interpretive remarks serve to reduce the fears that the patient brings to therapy concerning his behavior and thoughts and the responses of an authority to these events. The pattern of influence, however, is in all important respects shared by behavior therapies and psychoanalysis.

The Relation of Signaling Systems to Affects

The above discussion and examples from therapeutic operations stress cognitive elements. The literature and practice of therapy, on the other hand, have long stressed affect as the actual main target of mutative interventions. Signals in either of the two main signaling systems can evoke affective responses. For example, the sight of a raging fire may produce fear; but a verbal warning of an approaching tornado, given on the radio, can do likewise.

When we encourage a bereaved patient or a friend to talk of the death of a loved one, we are not surprised if lachrymal glands respond by secreting tears that accompany the thoughts expressed in words. So also with other "emotion-laden" recountings of past important events; indeed, we would regard a lack of any sign of rearoused emotion as an indicator of psychopathology. We expect some immediate evidence of emotional response if we intentionally slap someone hard across the face, but we tend to forget

that long-sustained affects owe their life to the link between feelings and words (or some equivalent cognitive apparatuses, in those who lack speech). Internalized verbal thoughts carry with them affective components that may be low-keyed (as in a memorized shopping list) or may have life- or-death power (as prejudices do). In these times of reason and science, battle cries and marching slogans still arouse the most primitive emotions to which we are prey.

Words become linked with feelings and with bodily processes in general, in ways that have as yet received little study except by psychoanalysts. That these linkages have unsuspected force and permanence can no longer be doubted. The work of Graham (1962) and others has demonstrated highly specific bonds between verbal statements about stressful life events, which are characteristic of and uttered in common by the sufferers from "psychosomatic" diseases. We do not call weeping a disease, or grieving after bereavement; neither do we label as an illness the muscular tension and the flushed face of the man describing an insulting encounter. Yet the statements of ulcer patients about life events preceding the onset of their illnesses are as characteristic as those of grievers or ragers, and as different from the statements of asthmatics as grievers differ from ragers in recounting what disturbed them.

The Graham studies shed light on an implicit influence and offer an

exciting promise for future lines of therapeutic exploration. People suffering from ulcers, asthma, hives, ulcerative colitis, migraine, eczema, and so forth appear to have conditioned themselves to their own utterances about and definitions of life events in the early years of their lives (as in "The moon is following me," described above). Thus the ulcer-prone man who defines a job loss as "Those S.O.B.'s gypped me out of what belongs to me and I'd like to chew them out!" generates bodily reactions appropriate for digestion. In any system of psychotherapy, efforts to influence this patient toward a more adult view of misfortune will change the automatic primitive response he keeps making to the loss of his job. The asthma-prone individual will define the same job loss as "being shut out in the cold," and his bronchial tubes behave as if he were in fact exposed to frigid air. Efforts of his psychotherapist to help him find more adaptive ways to view his predicament and the options that remain to him will implicitly change his way of defining the job loss. But ulcer-prone patients, it now appears, keep conditioning themselves by attending to their own pronouncements about the job loss, and in this process they keep activating pathological bodily responses. Psychotherapeutic influences toward more realistic responses will help, but it appears possible that interventions directed at this pathogenic self-signaling can offer a more rapid and effective therapeutic route.

Wider influences on patterns of interaction between words and feelings —the influences of family, group, culture, and native language—affect the

individual's capacity to define, in his second signaling system, what occurs in his feelings. We know little of this type of influence as yet, though it must creep unnoticed into the psychotherapeutic operation: Frenchmen know what "liver trouble" means; people from America's Deep South talk of "ague and fever;" and we know now that Tahitians cannot describe depression, nostalgia, grief, and loneliness (Lewis, 1972). But psychotherapy of any type, in any land or language, implicitly tinkers with the patient's description of his feelings, offering new labels and new ways to think about the life of the emotions.

The Incorporation of Signaling and Coping Modes by Modeling

Children acquire language, our most developed signaling system, by a mysterious process that seems almost akin to osmosis. As yet we know very little about how to facilitate this acquisition or to repair any damage to its spontaneous development.

Children acquire nonverbal languages (voice tones, expressions, gestures, styles of walking, swimming, or skiing, and so on) in a similar mysterious way. We see our children copy us, but there our understanding stops. How can they mimic us down to the tiniest mannerisms? This area remains clouded with problems that we are only beginning to examine (Mussen, 1970). For example, if you call an old friend on the telephone, you

might easily be gulled into launching an intimate discussion by the incredible similarity of the voice of a post-adolescent son of your friend to his father's (your friend's) voice. This imitative and incorporated process persists into adulthood. Our patients may not learn our verbal and nonverbal languages as readily as they once might have, but the capacity for imitative behavior pervades the consulting room. We may not choose to include identification as one of the recognized items of our therapeutic armamentary, but it serves us nonetheless. Identification with our teachers both aids and obfuscates the process of learning the technique of psychotherapy; is there a reader who has not "tried on" the style of the latest visiting expert, or the most recent author the reader has read?

Concluding Remarks

The preceding material bears upon the basic operations of therapy of any type. We begin with the heuristic assumption that a normal human being delights in revealing himself or herself to another person for the sheer joy of sharing an encounter. This is not a one-sided barrage of self-revelation, such as a caricature of a prototypical Hollywood character might produce. Rather, it involves the rapid sensing of one another by patient and therapist, and the joint revelation and experience that supplies both of them with one of the great joys of the psychotherapeutic enterprise.

All therapists watch for interruptions in this process. They collect an inventory of barriers, then begin guessing what produced them in past experiences with a patient and what might help to remove them as they intrude into the present. Injuries? Scoldings? Threats? Scars of some blighted reaching-out? Desertions? Disappointments? In other words, all therapists are in a sense like obstetricians, who count on the natural progression of events and who are alert to any interruptions, moving into activity when progress slows and working to remove the dystocia—the barrier to progress—as rapidly and effectively as they can.

Barriers may have originated at preverbal or nonverbal levels or in an enormous variety of experiences of a verbal nature. And—a *big* and—barriers can also originate in conflicts of feelings at all levels of experience, in conflicts of cognitive knowledge, and in conflicts between knowledge of the world coming from the first signaling system and knowledge of the world coming from the second signaling system. Therapists concern themselves with all these varieties of barriers and conflicts.

The raw data are available to the general public, but conventions of manners and habits of thought blind the originally perceptive eye of the average citizen. Training in psychotherapeutic technique strives to restore fresh awareness. Some gifted nonprofessionals retain this awareness all their lives, making them the people we seek out in times of trouble: the comforting

parent, the sainted aunt, the gentle uncle, the cherished friend. Some people have an ear for music or an eye for line, others are tone-deaf or can draw nothing more complex than a stick figure. Similarly, a talent for empathy, for tactful exploration of barriers to encounter, for skillful facilitation—such gifts bless people in all walks of life, outside of any formal profession. What writing such as this tries to do is to assist in the process of discovering or recovering sensitive awareness and sensitive assistance.

Imagine a therapeutic session. Our patient pauses. Why? After a silence the patient starts out on (it seems) an entirely new tack. We conjecture. Our patient deluges us with a rush of detail. Why? Then our patient blushes. We search for connections, and some coherence looms. We listen with our "third ear," as Theodore Reik advised; we make hypotheses of the sort we might make when we were newborn infants; we also apply all the sophisticated scientific knowledge we can muster. The patient wants to make contact with us. What blocks the effort, then, and his efforts elsewhere?

It is easy to engrave inhibitions on the plans of humans, as on lower animals. All one need do is impose punishment reliably; and the earlier and more impressionable the age at which this is done, the more effective. But the higher the organism in the evolutionary scale, the more possibilities there are for contradictory and paradoxical inhibitions, prohibitions, conditions, and demands to be engraved. To be sure, some ambivalences come with the genes

and with the drives that are governed thereby. Observe two sibling kittens. One moment they groom each other and curl up together amicably; the next moment, when food is to be shared and divided, they fight. Ambivalence is inescapable in nature, but with our elaborately structured plans we humans have the capability of raising nature's given ambivalences to exponentially expanded levels. All therapies focus on inappropriate inhibitions and use various means of reducing the force these retain from childhood days.

To survive in a world of other humans, we require what psychoanalysts have called defenses. These are, of course, familiar to the reader. But in the context of this chapter they can seem as styles of recoding the raw data of experience, with the result that certain data are lost to the synthetic, cognitive efforts our patients make. For example, in the "isolation" defense, the data of feelings associated with an event or a thought undergo censoring; in "denial," portions of sensory inputs are elided; in "repression," some of the data of experience are denied access to consciousness. Compulsions can be compared to railroad sidetracks, in that the real objective of the wish or drive is, as it were, diverted from the main track of motivation onto a substitute motor activity (or, in the case of obsessions, cognitive activity). Thus the patient's plan is diverted into a discharge that is safer than a discharge on the main track. Obviously it is safer to beat a rug than to beat one's husband, or to wash one's hands than to feel unbearable reproaches of guilt. But such recodings of experience are damaging—even crippling—to sensitive coping. All therapies

therefore implicitly attack these editing processes to some degree, if only to gauge how desperate is the need they fulfill. A successful therapy will leave the patient's plans for dealing with experience in a more effective state, either by sluicing off disturbing conflicts or drives into harmless substitute activities that control panic better, or by finding a resolution to needs previously deemed irreconcilable in the codings of past experience.

Defenses imply an organism divided against itself. This in turn involves paradox. One plan says "Feel this" while another says "You must not feel this." The best-studied paradoxes are those disclosed in a long psychoanalysis, and those interactions that are immediately obvious in family therapy. In psychoanalysis, one gradually comes to hear the irrational contradictions coded in the patient's memories, as disclosed in free association and in behavior during the analytic situation. In family therapy one can observe the absurd contradictions imbedded in a family's dialogue. A wife says to her husband, in commanding, imperious, dictatorial tones, "Be spontaneous!"—a command that defeats itself even as it is uttered, since the imbedded paradox is "Do as I say" as well as "Do what you want on your own." Such paradoxical dilemmas have been exposed and analyzed in many writings—particularly in those of Haley (1963) and other members of the group known in professional circles as the "Palo Alto Group," whose major leaders were Gregory Bateson and Don D. Jackson. A most penetrating analysis of the distorted logic of the guiding plans found in human interactions can be found in *Pragmatics of*

Human Communication (Watzlawick, 1967).

Paradoxes have their therapeutic uses. Behavior therapies of all types implicitly use the incompatability of safety, security, protection, and reasonableness (all of which the behavior therapist generates in one way or another) with the wild, unreasoning terror involved in many patients' symptoms. Once a patient learns to trust the therapist, he can relax the defenses used to ward off panic and, bit by bit, begin to undo the connection between some past traumatic experience and his feelings of helplessness. What seemed horrendous gradually becomes tolerable and even comfortable. This paradigm can be seen to underlie many other therapeutic strategies and tactics, especially the "working-through" process of psychoanalysis. One simply cannot feel abandoned, annihilated, or maimed in an atmosphere providing respect, understanding, and the sense of being cherished. The loving aspect of the superego, expressed as good-humored acceptance of the reality of one's self and one's surroundings, comes to supplant the ancient Talmudic eye-for-an-eye law.

However, in perusing discussions devoted to different types of therapeutic influences, there are some caveats to be observed. These caveats center on the fact that therapists from various schools usually fail to mention many of the operations in which they engage but rather leave them implicit, in their wish to emphasize the particular element of therapeutic influence

that is the focus of their special technique. Why—so they might argue—why mention ordinary tact or politeness, or a sense of humor? Of *course* these can be assumed. Why mention ground rules of therapy such as the freedom to call the therapist on the telephone, or at home? What influence does a brief encounter on the street exert, or a friendly visit when intercurrent illness leads to the hospitalization of the patient? What does a brief chat matter during the intermission of a play? In this latter context, spouses may well be included, and the whole gestalt of therapy will change accordingly. And what does one do with the influence deriving from encountering one's patient in the shower room of a university gymnasium, or at a private club, or in some other intimate, if casual, setting? We ignore such side operations; but they are often of crucial importance.

The effort to subject therapies to scientific scrutiny tends to involve taking the data of therapeutic sessions and evaluating them by rating scales, numbers, and other measures that can be fed into a computer. This practice is in the long run necessary if we are ever to make a science of the art of psychotherapy—which outcome we may reasonably doubt on the evidence currently available. But if such an objective is ever to be achieved, some way of measuring the hardly tangible dimensions of devotion and commitment—in short, the dimensions of what is meant by the Greek word *caritas*—will have to be devised. This capability may elude the scientist at present, but patients have no trouble at all in telling one therapist from another. They

know whether the therapist in question gives a damn or not about what happens to them, or how much work the therapist is willing to exert to make a therapeutic intervention. (An unmentionable dimension that belongs in this discussion is money. In passing, I wish only to point out that the dollar intrudes into every type of therapeutic setting, for better or worse, and that in this respect all therapists tend to practice the defense of denial when they come to write about what they do in practice.)

As the reader strives to understand the efforts humans devote to influence other humans, in myriad ways, I make a plea for compassion toward therapists. They strive for the expansion of experience and for vividness of life, and this may at times require disciplined resistance to chaotic avoidance in the destructive behaviors their patients often exhibit. Perhaps, in reading various accounts of therapeutic endeavors, the reader can listen for the melody rather than a specific note, and can confidently assume the real desire for creative advance that all therapists hold in common.

Bibliography

Ardrey, R. *The Territorial Imperative.* New York: Atheneum, 1966.

Beadle, M. A *Child's Mind.* Garden City: Doubleday, 1970.

Bergin, A. E. and S. L. Garfield. *Handbook of Psychotherapy and Behavior Change.* New York: Wiley, 1971.

Bloom, B. J. *Stability and Change in Human Characteristics.* New York: Wiley, 1964.

Bower, T. G. R. "The Visual World of Infants," *Sci. Am.,* 215 (1966), 80-92.

----. "The Object World of the Infant," *Sci. Am.,* 225 (1971), 38-47.

Ellis, A. *Reason and Emotion in Psychotherapy.* New York: Lyle Stuart, 1962.

Glover, E. *On the Early Development of Mind.* London: Imago, 1956.

Graham, D., R. M. Lundy, L. S. Benjamin et al. "Specific Attitudes in Initial Interviews with Patients Having Different 'Psychosomatic' Diseases," *Psychosom. Med.,* 24 (1962), 257.

Haley, J. *Strategies of Psychotherapy.* New York: Grune & Stratton, 1963.

Harlow, H. F. "Motivation as a Factor in the Acquisition of New Responses," in M. R. Jones, ed., *Current Theory and Research in Motivation,* pp. 24-49. Lincoln: University of Nebraska Press, 1953.

Joos, M. "Language and the School Child," *Harvard Educ. Rev.,* 34 (1964), 203-210.

Klein, M. *The Psychoanalysis of Children.* London: Hogarth, 1932.

Klein, M., P. Heimann, and R. E. Money-Kyrle, eds. *New Directions in Psychoanalysis.* New York: Basic Books, 1957.

Lenneberg, E. H. *Biological Foundations of Language.* New York: Wiley, 1967.

Lewis, W. C. "Some Observations Relevant to Early Defenses and Precursors," *Int. J. Psychoanal.,* 44 (1965), 132-142.

----. *Why People Change.* New York: Holt, Rinehart & Winston, 1972.

Lieberman, M. A., I. D. Yalom, and M. Miles. *Encounter Groups: First Facts.* New York: Basic Books, 1973.

Lowe, J. *Understanding Whitehead.* Baltimore: The Johns Hopkins Press, 1962.

Luria, A. R. *The Role of Speech in the Regulation of Normal and Abnormal Behavior.* New York: Liveright, 1960.

Mussen, P. "Early Socialization, Learning and Identification," in *New Directions in Psychology,* vol. 3, pp. 51-105. New York: Holt, Rinehart & Winston, 1970.

Pribram, K. *Languages of the Brain.* Englewood Cliffs, N.J.: Prentice-Hall, 1971.

Rosen, J. N. *Direct Analysis.* New York: Grune & Stratton, 1953.

Sokolov, E. N. *Perception and the Conditioned Reflex.* New York: Macmillan, 1963.

Spiesman, J. C. "Autonomic Monitoring of Ego Defense Process," in N. S. Greenfield and W. G. Lewis, eds., *Psychoanalysis and Current Biological Thought,* pp. 227-244. Madison: University of Wisconsin Press, 1965.

Stampfl, P. G. and D. J. Lewis. "Essentials of Implosive Therapy: A Learning-Theory Based Psychodynamic Behavioral Therapy," *J. Abnorm. Psychol.,* 72 (1967), 496-503.

Watson, J. D. *Molecular Biology of the Gene,* 2nd ed. Menlo Park, Calif.: Benjamin, 1970.

Watzlawick, P., J. H. Beavin, and D. D. Jackson. *Pragmatics of Human Communication.* New York: Norton, 1967.

Wolpe, J. *Psychotherapy by Reciprocal Inhibition.* Stanford: Stanford University Press, 1958.