Psychotherapy and Cognitive Style

MYRON F. WEINER, M.D.
J. DOUGLAS CROWDER, M.D.† | *Dallas, TX*

Patients who have a concrete cognitive style are psychotherapeutically best treated by methods that take into account their cognitive style, whether it is defensive or results from a cognitive developmental arrest. Concrete thinking, while an obstacle to insight-oriented therapy, is no obstacle to changing attitudes and behaviors by means that do not involve the development of insight into unconscious conflict or motivation.

Psychotherapists assess many factors in determining whether and how to treat their patients psychologically. Frequent considerations are patients' ego-strength, their ego-structure, and their motivation for treatment. Psychotherapists rarely assess, however, patients' ability to reason abstractly. In failing to do so, they tacitly assume that patients with varying psychological resources can make use of conventional insight-oriented psychotherapeutic techniques and interventions. This study emphasizes the importance of assessing cognitive ability and the consequences of cognitive style for therapy.

METHOD AND RESULTS

We reviewed the Similarities and Comprehension subscales scores of the revised Wechsler Adult Intelligence Scale (WAIS-R), which had been administered to 60 medical/surgical inpatients in a public hospital. Equal numbers of consecutively admitted patients from three hospital areas were selected to provide maximum diversity: 20 women from the high-risk pregnancy unit, 20 women recovering from hysterectomies, and 20 men hospitalized on the pulmonary and orthopedic services. We excluded persons with an obvious organic brain syndrome or for whom psychiatric consultation had been sought.

The Similarities and Comprehension subscales of the WAIS-R assess ability to reason abstractly.[1] The Similarities subscale of the WAIS-R comprises 14 paired items. Examinees were asked to explain the similarity between the two items in each of the 14 pairs. A maximum score of two

*Professor of Clinical Psychiatry, Department of Psychiatry, The University of Texas Health Science Center, 5323 Harry Hines Blvd., Dallas, TX 75235.
†Instructor of Clinical Psychiatry, The University of Texas Health Science Center at Dallas.

points is awarded for indicating a category to which both items in a pair belong. One point is awarded for indicating an aspect the two items have in common. The test is discontinued after four consecutive "misses," i.e., after the patient fails to identify a common category for the two items (a two-point response) four consecutive times. The number and percentage of people who were able to abstractly categorize each pair is indicated in Table I. There were only two pairs of items that half or more of 56 patients who completed this subscale were able to place in a common abstract class: an orange and a banana (fruit), and a cat and a dog (animals).

The Comprehension subscale of the WAIS-R consists of three proverbs which are scored on the generallzation of the proverb to life situations. The three proverbs are: "strike while the iron is hot," "shallow brooks are noisy," and "one swallow doesn't make a summer." Of the 50 persons who completed this subscale, only 40 percent generalized the iron proverb, 12 percent the brook proverb, and a mere 4 percent the swallow proverb.

The average full-scale intelligence quotient of these hospitalized patients as measured by the WAIS-R was in the low 80s.[2] The examinees often did not understand commonly used nonmedical words such as tranquil, domestic, and obstruct,[3] and their reading ability (based on a comparable sample of medical outpatients at the same facility) was at a sixth-grade level.[4]

DISCUSSION

Whether caused by cultural deprivation, lack of education, or limited intellectual endowment, our patients' performance on these tests suggests that

TABLE I

Wais-R Similarities Subscale
(N = 56)

	n	%
1. Orange:banana	33	59%
2. Dog:lion	29	52%
3. Coat:suit	20	36%
4. Boat:automobile	20	36%
5. Eye:ear	16	29%
6. Button:zipper	14	25%
7. North:west	25	45%
8. Egg:seed	6	18%
9. Table:chair	13	23%
10. Air:water	18	32%
11. Poem:statue	2	4%
12. Work:play	0	0%
13. Fly:tree	3	5%
14. Praise:punishment	2	4%

they have difficulty with abstract reasoning. Psychotherapists, by contrast, reason by analogy and frequently communicate through simile and metaphor, expecting patients to understand abstract contingent relationships and the "as if" explicit in similes and implicit in metaphors. A typical insight-oriented therapeutic analogy compares one authoritarian relationship with another. In dealing with passive aggression, for example, the therapist may verbalize as follows:

First an analogy:

"Just as you feared striking out at your father directly, you are now striking back indirectly at your boss by not carrying out his orders";

then a simile:

"You seem to fear your boss, as if he were in some way like your cruel father";

and finally a metaphor:

Perhaps (in your unconscious mind) your boss is your feared father."

The therapist hopes that by understanding the displacement of feelings from father to boss and by working through the feelings of anger originally directed toward the internalized father, the patient will no longer antagonize his boss for reasons unrelated to their real work relationship.

The type of reasoning and communication we have described is what many consider the mutative element in psychotherapy: the therapist's interpretation that one aspect of a patient's life is *like* another, and the patient acts *as if* they were the same.[5] Thus, generalization and the "as if" contingency are at the heart of insight-oriented psychotherapeutic interventions. If interpretation is the mutative element, and if patients do not grasp abstract analogy, simile, and metaphor, it is not possible to change the unconscious attitudes which we assume to cause and aggravate factors in neuroses and personality disorders. Or is it?

Some therapists acknowledge patients' concreteness when it is present, but seem to apprehend concreteness as a defense to be interpreted and worked through.[6,7] Working on the concrete problems with which these patients often present is viewed as a dreary step toward the real work of interpretation.

Alternatively, a concrete cognitive style may not be just a troublesome defense. It may serve as a larger function. Persons who can think abstractly, and who have good ego strength, develop a matrix of repression that contains most conflicts and allows a few to rise to consciousness to be examined and modified directly. Because repression serves as a reserve of defensive energy, other defenses can be interpreted and exchanged for more mature ones. As long as such a repressive matrix is intact, no single conflict threatens to overwhelm the entire defensive structure.

Such is not the case with the patients under discussion. Many seem to

lack such a repressive reserve. Lager and Zwerling,[7] referring to their extensive experiences with lower-socioeconomic-class patients, note that in many instances repression has never adequately developed. Generally, repression sets aside conflicts that cannot be immediately dealt with and allows focusing on problems that are within patients' capacity to solve. Concreteness may function similarly for those unable to repress. It reduces all time to the present, and its exclusively external, tangible orientation reduces all problems to concrete manipulations of objects and people instead of struggles with motives and emotions whose outcome is vague and uncertain.

An example is the demanding behavior adopted by many concrete-thinking patients when they feel their emotional needs or discomforts are neglected by their therapists. When patients demand specific gratifications by their therapists, their needs for a perfect mother, future, and past are concretized into "can I get this one thing from him now?" If the behavior is dealt with through interpretation, patients may regress severely, not because they are resistant, but because they have no other defensive options. Zwerling[7] notes that the alternative to demandingness in many lower-socioeconomic-class patients is psychotic symptomatology. Thus, "resistance" to dropping demandingness may be a strength that helps avoid regression in patients whose concrete understanding of the situation substitutes for other patients' ability to repress.

We are left, then, to question whether defensive concreteness must be breached before patients can receive substantial help. In patients who need their concreteness, we cannot recreate thought patterns in our own abstract cognitive image. Nevertheless, new coping mechanisms/defenses must be learned because patients' presence in our clinics signifies some adaptive/defensive failure. How is the learning process to be approached if conscious abstract learning is impossible or contraindicated because of concrete-thinking patients' lack of repression?

One possibility is that conscious abstract learning may not be necessary. Much learning in psychotherapy is unconscious.[8] Bandura[9] and Brewer[10] have presented evidence that behavioral conditioning produces cognitive alterations without conscious cognitive change. Experimentation by Weiner[11] provides evidence for a "cognitive unconscious" capable of acquiring skills and altering conscious perceptions without direct formal educational experiences. French[12] proposed much the same idea when he stated that insight could be therapeutic without being conscious. Sternlicht[13] found several therapeutic techniques useful with mentally retarded patients. As a result, he took issue with the assumption that insight is necessary for successful personality change. Further, while psychotherapists tend to concentrate on details of their own techniques and how these techniques differ from the techniques of other therapists, many authors propose that

nonspecific elements of therapy common to many schools of thought are far more significant in producing therapeutic change.[14,15] Thus, it would seem that patients whose mind-set causes them to be labeled uncongenial or unsuitable to therapy are actually uncongenial to therapists' abstract cognitive style.[6] Resistance to abstract cognitive modes is not tantamount to resistance to therapy and change. Help for these people awaits only our development of techniques tailored to patients' cognitive style.

It would seem, then, that techniques eschewed by insight-oriented therapists might be used for patients who must operate concretely. Such techniques include paradoxical intervention,[16] assigning tasks,[17] nurturing an identification with the therapist,[18] using operant conditioning principles of reinforcement,[19] giving concrete advice and education,[20] and manipulation.[21] Many see these methods as counterproductive because they avoid exploring conflict, but they may fail to appreciate their true value. Repression of conflict, so our reasoning goes, is the basis of psychiatric symptomalogy, and must therefore be reversed for resolution and "cure." But repressed conflict is universal, present in the psychiatrically healthy as well as the ill. Further, the most mature defenses make a person *less* directly aware of conflicts and drives, sublimating them into productive expression which is simultaneously drive-gratifying.

It follows, then, that the best interventions for these patients may be those producing behavioral and intrapsychic responses that parallel defense mechanisms. If we consider the passive-aggressive employee mentioned earlier, an alternative to interpretation would be:

Therapist: It sounds as if you don't like your boss.

Patient: I don't. He's a real S.O.B.

Therapist: Do you want to continue working where you are?

Patient: Yes. Jobs are hard to find.

Therapist: Then let me make some suggestions. They won't change your boss, but may make it easier to work for him. Let's do some play-acting together. You say what your boss would say and I'll be you, trying to find a better way to handle him. Go ahead. Try it.

Patient (as his boss): Paul, I want those boxes moved.

Therapist (as Paul): I can't. It's lunch time.

Therapist (as himself): How do you think your boss would react to that?

Patient: He'd get mad at me.

Therapist: Then how about, "Yes, Mr. Jones. It'll be the first thing I do when I get back from lunch."

Patient: That would probably go over better.

Therapist: Sure, because you've told him "yes" and told him when you'll do it instead of saying "no."

This intervention channels the patient's aggression into productive activity (moving the boxes and negotiating for a more agreeable time frame)

and gratifies ambivalently felt needs for independence (timing is now more suitable to the patient) and allowing dependency on and obtaining approval of authority figures (the therapist has told him what to do and praises him for acceptance of the advice). Focusing on a concrete task, expressing the drive, and receiving gratification all serve to defuse the conflict and repress awareness of it. The intervention performs all these functions at once, is very time-efficient, and avoids a long series of complicated interventions. This is important because of many patients' present-time orientation.[7] Patients also learn new coping/defense mechanisms without having to contend with abstract interpretations they might not comprehend.

Some would object that these "supportive" techniques foster unhealthy dependency on therapists' expertise and authority. But, when patients enter a hospital for a physical illness, they regress in a positive way, becoming dependent on doctors and nurses to give them what they cannot supply for themselves. In the same way, a positive dependency on the therapist is generally of far less concern than the ego deficits and acting out common to concrete-thinking patients and patients with limited ego strength. They are initially unable to overcome these problems on their own, and their dependency is in fact a regression in the service of the ego.

It might also be argued that the therapist is doing too much work for the patient, and that by lending his own ego the therapist prevents permanent change. However, in Weiner's[11] experiments, subjects learned new perceptual skills and interpretive sets which they applied in an automatic, unconscious way to new situations similar to, yet different from, the conditions under which the skills were originally learned. This suggests that conscious insight is not necessary to generalize the application of a skill learned in one situation to another. Because generalization is an integral part of abstraction, we suggest that there may be human capacity for an unconscious abstracting process or "para-abstraction." If that is the case, teaching patients how to deal with specific problems *can* produce lasting changes in their cognition and behavior, even when insight into the unconscious does not occur.

Further evidence of para-abstraction comes from the observation that all patients develop transferences.[7] For example, dependent patients, traumatized by maternal abandonment in childhood, often experience a therapist's vacation as another abandonment. That is, the patient reacts as if the therapist were mother, generalizing from one situation to another. Some of these transferences originate from conflicts or wishes that become embedded in the unconscious long before the formal operations phase of cognitive development makes conscious abstraction possible. Once again, it seems that conscious awareness is not necessary to apply learning from one situation to another.

The notion that patients may have a defensive need to avoid using

abstracting ability they actually possess raises intriguing questions as to the developmental origin of this need. Do patients subvert the development of conscious abstract reasoning altogether? Or do they begin to emerge from concrete thinking into a more abstract mode only to find the realities of poverty and physical danger too painful to bear when abstractly interpreted and understood? The blissful ignorance concreteness offers might be ample incentive to repress not only individual cognitions and emotions, but the entire cognitive process of abstraction. The alterations of cognitive style occurring in hypnotic age regression in which abstract thinkers return to the concreteness of their youth suggests this as a real defensive possibility,[22] as does the work of Piaget, who refers to a process of cognitive repression.[11]

I (M.W.) have had an experience supporting the notion that the abstract mode of thinking can be repressed. Early in 1985, I was mugged in a hotel lobby. At the time of the incident, while I was immobilized in a headlock by one man and another rifled my pockets (a period of about 30 seconds), I experienced no conscious thoughts. Afterward, my chief feeling responses were fatigue and numbness. My fantasies consisted entirely of concrete means by which I might have defended myself. A few days later, I received a telephone call indicating that my wallet (without cash or credit cards) had been found. It was not until I actually retrieved my wallet that I experienced my first *as if* thought. The wallet had been slightly soiled by its sojourn on the city sidewalk, where it had been thrown by the mugger. I experienced a sense of revulsion, *as if* the inner substance of the wallet had been contaminated. I was unwilling to carry the wallet for several weeks, and thought to myself that the soiled wallet was symbolic of having been raped. The revulsion felt toward the wallet was a displacement of my own sense of having been violated and soiled. Now, four months later, there has only been one dream related to the incident, and that was quickly repressed . . . all this despite my having discussed the mugging many times and having actually seen a videotape of the mugging in the hotel's security department. It is certainly clear in this instance that the rape fantasy was at first repressed and dealt with only in terms of the concrete realities of the mugging. The repression worked itself out spontaneously, and there were not significant psychological sequelae of the incident other than increased vigilance in certain situations. Whether repeated traumas of this sort could permanently impair abstract thought can only be speculated, but the short-term effect was unquestionable.

CONCLUSION

Many patients do not reason abstractly. This may be due to a lack of native intelligence, to sociocultural deprivation, or to substituting concreteness for repression as a defense mechanism as shown by the author's reaction

to being mugged. Whatever its cause, these patients' concreteness calls into question the efficacy of psychotherapeutic techniques that rely on analogy, simile, and metaphor. The problem is not merely one of overcoming our prejudices so that we can work with these patients toward developing insight.[23] We suggest instead that techniques such as paradoxical intervention, task-assignment, promoting identification, reinforcement, education, and advice, often thought to be only palliative, are actually in these patients' best interest. Many studies and reports offer evidence that such techniques can produce lasting change and that learning can be generalized from one situation to another without conscious insight. The best interventions for such patients may be those which stimulate responses parallelling defense mechanisms—channeling drives into productive activity, gratifying some of the patient's wishes, and repressing conscious awareness of the conflict. A single intervention which performs all of these functions or a short series of interventions is much to be preferred to a long, time-consuming process which is likely to lose concrete-thinking patients because of their present-time orientation.

Patients who think concretely, who were once thought psychotherapeutically unreachable because of their cognitive style, may in actuality await only our identification and acceptance of techniques which do not rely on conscious abstract insight as the primary therapeutic vehicle.

SUMMARY

Cognitive style is an important consideration in determining the appropriate psychotherapy for our patients. Many patients have a concrete cognitive style, that is, they do not think by analogy, or understand simile and metaphor. Such a concrete style may be defensive, i.e., may occur in a particular context as a means of dealing with effects generated by symbols, or it may result from a developmental arrest due to educational, environmental, or biological factors.

Concrete thinking is an obstacle to insight-oriented therapy based on metaphorical communication. Conversely, inability to think abstractly does not preclude changing attitudes and behaviors by means that do not involve the development of insight and unconscious conflict or motivation. Such techniques include role playing, the giving of concrete advice, and modeling by the therapist.

REFERENCES

1. Wechsler, D. *The Measurement and Appraisal of Adult Intelligence.* Williams & Wilkins, Baltimore, 1958.
2. Weiner, M. F., and Lovitt, R. An Examination of Patients' Understanding of Information from Health Care Providers. *Hosp. Community Psychiatry,* 35:619–20, 1984.
3. Scott, N., and Weiner, M. F. 'Patientspeak': An Exercise in Communication. *J. Med. Educ.,* 59:89–893, 1984.

4. Glazer-Waldman, H., Hall, K., and Weiner, M. F. Patient Education in a Public Hospital. *Nurs. Res.* 34:185–86, 1985.
5. Brenner, C. *The Mind in Conflict.* International Universities Press, New York, 1982.
6. Oberman, E., Wood, M., and Clifton, A. Reaching the "Externalizers"—A Three-Phase Approach. *Am. J. Psychiatry,* 125:1404–11, 1969.
7. Lager, E., and Zwerling, I. *Psychotherapy in the Community: A Psychoanalytically-Based Guide to the Treatment of the Adult.* Warren H. Green, St. Louis, 1983.
8. Freud, S. Remembering, Repeating, and Working-Through. In *The Standard Edition of the Complete Psychological Works of Sigmund Freud.* The Hogarth Press, London, 1958.
9. Bandura, A. The Behavior Theory and the Models of Man. *Am. Psychol.,* 29:859–69, 1974.
10. Brewer, W. F. There Is No Convincing Evidence for Operant or Classical Conditioning in Adult Humans. In *Cognition and the Symbolic Process,* Weiner, W. B., and Palermo, D. S., Eds. Halstead Press, New York, 1974.
11. Weiner, M. L. *The Cognitive Unconscious: A Piagetian Approach to Psychotherapy.* International Psychological Press, Davis, CA, 1975.
12. French, T. M. The Reintegrative Process in a Psychoanalytic Treatment. In *The Integration of Behavior,* Vol. III. University of Chicago Press, Chicago, 1958.
13. Sternlicht, M. Psychotherapeutic Techniques Useful with the Mentally Retarded: A Review and Critique. *Psychiatr. Q.,* 39:84–90, 9165.
14. Frank, J. D. *Persuasion and Healing: A Comparative Study of Psychotherapy,* rev. ed. The Johns Hopkins University Press, Baltimore, 1973.
15. Strupp, H. H. A Reformulation of the Dynamics of the Therapist's Contribution. In *Effective Psychotherapy,* Gurman, A. S., Ed. Pergamon Press, New York, 1977.
16. Weeks, G. R., and L'Abate, L. *Paradoxical Psychotherapy.* Brunner/Mazel, New York, 1982.
17. Puryear, D. A. *Helping People in Crisis.* Jossey-Bass, San Francisco, 1979.
18. Weiner, M. F. Identification in Psychotherapy. *Am. J. Psychother.,* 36:109–16, 1982.
19. Dewald, P. A. The Process of Change in Psychoanalytic Psychotherapy. *Arch. Gen. Psychiatry,* 35:535–42, 1978.
20. Stein, E. H., Murdaugh, J., and MacLeod, J. A. Brief Psychotherapy of Psychiatric Reactions to Physical Illness. *Am. J. Psychiatry,* 125:1040–47, 1969.
21. Briggin, C. S., and Zinberg, N. E. Manipulation and Its Clinical Application. *Am. J. Psychother.* 23:198–206, 1969.
22. Crasilneck, H. B., and Hall, J. A. *Clinical Hypnosis.* Grune & Stratton, New York, 1975.
23. Siassi, I., and Messer, S. B. Psychotherapy with Patients from Lower Socioeconomic Groups. *Am. J. Psychother.* 30:29–40, 1978.