

# Unconscious Mental Functioning

*Rigorous, quantitative studies of psychotherapy are challenging certain widely held views of how the unconscious mind works and how patients in therapy make progress*

by Joseph Weiss

**H**ow does psychotherapy work? In the past several years my colleagues and I of the Mount Zion Psychotherapy Research Group in San Francisco have found some surprising answers to this question and to an inseparable, and equally profound, question—namely, how does the unconscious mind function?

It is generally assumed that human beings cannot carry out unconsciously the same kinds of intellectual activities they perform consciously, such as making plans and assessing risks. Yet our studies of patients in psychotherapy indicate that, in fact, people can unconsciously think, anticipate consequences and make and carry out decisions and plans. What is more, patients enlist these abilities in the service of working to become well—in the service of gaining control over their irrational beliefs, feelings and behaviors.

Most ideas about unconscious mental functioning and the therapeutic process have been developed by psychotherapists on the basis of clinical impressions, recorded as notes or recalled from memory. This approach has been fruitful for producing new ideas, but it cannot assess their relative value. Hence, the Mount Zion Psychotherapy Research Group, which I co-direct with my colleague Harold Sampson, has gone beyond the clinical method, choosing instead to depend on reliable data and to carry out rigorous, quantitative investigations that are planned in advance to test specific hypotheses.

**O**ur studies have focused on comparing the merits of two distinct psychoanalytic (Freudian) hypotheses about the nature of unconscious mental functioning. The two hypotheses can be evaluated em-

pirically because they make distinct, testable predictions about how patients will behave during therapy.

Psychoanalytic theory assumes that, beginning in early childhood, powerful "mental contents" (thoughts and feelings) that are not tolerable to the conscious self become buried beneath what may be called a repression barrier, which consists of forces that prevent repressed material from reaching awareness. Nevertheless, the buried contents—which Sigmund Freud initially thought consisted mainly of sexual and aggressive impulses and later concluded also included beliefs, judgments and such emotions as shame and guilt—continue to influence mood and behavior. They thereby contribute to the symptoms that can propel people into therapy, such as inexplicable depression, unfocused anxiety and maladaptive behaviors that seem to be resistant to conscious control.

Because the repression barrier limits people's conscious knowledge of why they act and feel as they do, thus limiting their control over parts of their personality, a major focus of psychoanalytic therapy is to help patients weaken their repressions and confront repressed material. The therapist asks patients to free-associate: to put into words any thoughts, images, memories and feelings that enter the mind. Such associations provide clues to the patients' unconscious motivations and concerns. The therapist may then interpret the patients' statements, pointing out what appear to be the underlying wishes, fears, beliefs, guilts or the like. Presumably the therapist's interpretations help patients to gain insight into the effects of the unconscious mind on their conscious thoughts, feelings and behaviors.

Although both hypotheses we examined are compatible with the basic tenets of psychoanalytic theory, they make profoundly different assumptions about the degree of control people can exert over unconscious mental functioning. The first, and more influential, hypothesis, which I call the dynamic hypothesis, basically derives from Freud's early writings and assumes that people have little or no control over their unconscious mental life. It proposes that the unconscious mind consists predominantly of two kinds of forces. On the one hand, sexual and aggressive impulses seek gratification and push toward consciousness; on the other hand, repressive forces oppose the impulses. The impulses and repressions interact dynamically, much as forces interact in the physical world. For instance, two

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equal and opposite forces may nullify each other, and a strong force may overwhelm a weaker one. Through their interactions, these forces determine behavior.

The other hypothesis, which I call the unconscious-control hypothesis (or, more simply, the control hypothesis), elaborates on ideas Freud put forth briefly in some of his later writings. It assumes that people can exert some control over unconscious functioning. According to this idea, people keep impulses and other mental contents repressed not because the repressive forces are necessarily more powerful than the unconscious impulses but because individuals can unconsciously decide (by extrapolating from the past and by assessing current reality) that experiencing or expressing certain repressed material would be dangerous. For example, patients may decide that expressing love to another person would lead to rejection or humiliation.

The control hypothesis further assumes that patients in therapy have a strong unconscious wish to get better. They therefore desire unconsciously (as well as consciously) to bring for-

ward repressed mental contents and explore their significance. Hence, they may unconsciously decide to lift repressions and permit hidden material to come forth when doing so no longer seems dangerous.

We compared the dynamic and control hypotheses by examining the different explanations they offer for certain events that commonly occur in therapy. In one such event, patients spontaneously become aware of unconscious material (such as hostility toward a sibling) without the therapist's having mentioned it previously.

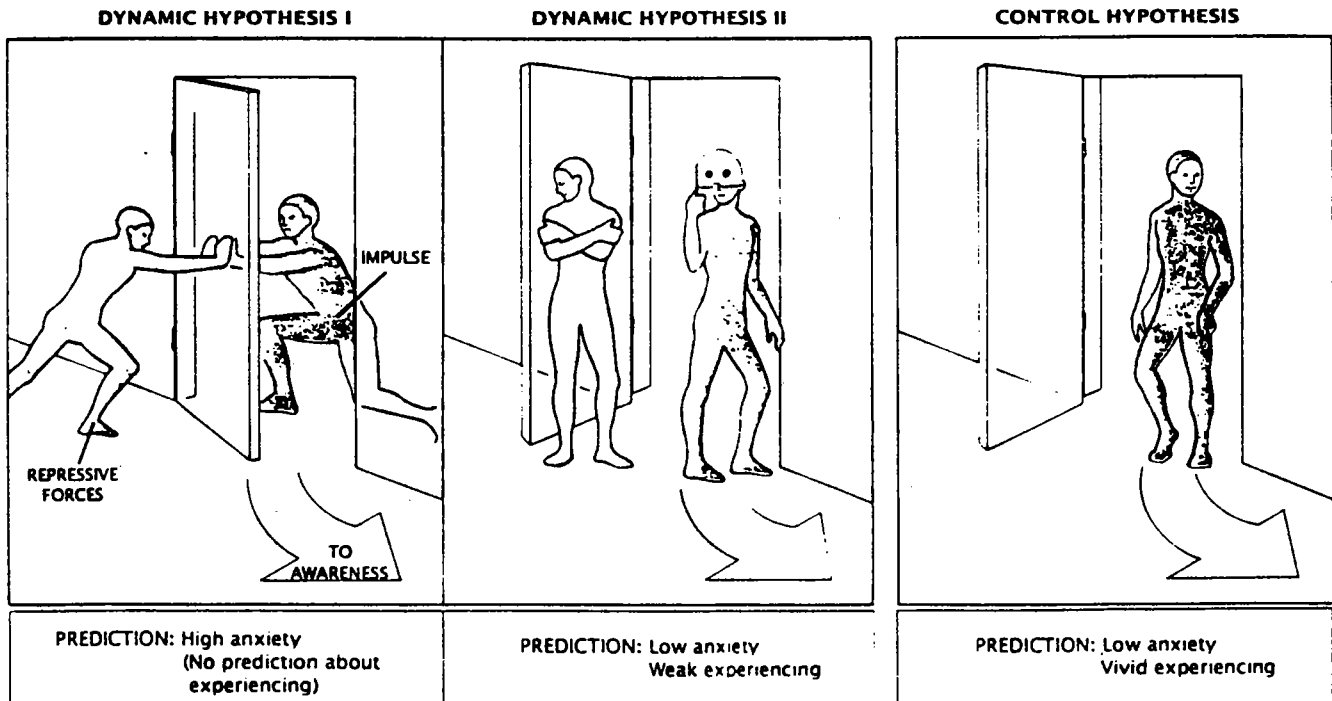
In explaining this phenomenon of therapy, both hypotheses emphasize certain special features of the relationship between patient and therapist. The relationship is strictly professional and confidential and is confined to the office; also, the therapist maintains an impersonal, investigatory attitude toward patients. Each hypothesis, however, focuses on a different aspect of the relationship.

The dynamic hypothesis emphasizes the frustrations evoked by the therapist's attitude. It assumes that dur-

ing treatment the therapist becomes the object of patients' unconscious impulses; for instance, a patient's repressed hostility toward a rivalrous sibling may become transferred onto the therapist, so that the patient becomes unconsciously angry at the therapist. Patients' unconscious impulses may then be frustrated by the therapist's detachment and so may become more intense—just as hunger becomes more gnawing when it goes unsatisfied. Frustrated impulses push with intensified pressure toward consciousness but, because of the counterpressure of the repression barrier, are in most instances prevented from reaching awareness.

An intensified impulse may spontaneously become conscious in spite of this barrier in two ways, according to the dynamic hypothesis. In one instance the impulse may become so powerful relative to the forces of repression that it overwhelms those forces and breaks through the repression barrier. For example, a patient may react with rage to a slight provocation by a therapist.

The frustrated and intensified impulse may also enter consciousness if



COMPETING HYPOTHESES about unconscious mental functioning were assessed by testing the predictions they make about how patients will feel and act while becoming spontaneously aware of an unconscious impulse not previously mentioned by the therapist. The "dynamic" hypothesis holds that an intolerable repressed impulse can become conscious spontaneously in two ways. It can overwhelm the repressive forces (left), in which case the hypothesis predicts that conflict between the impulse and the repressions it arouses will make patients anxious. The impulse may also become disguised (center) and

reach consciousness by escaping notice by the repressive forces. Presumably patients will then feel little anxiety (because the impulse does not come into conflict with the repressions) but will also fail to experience the undisguised impulse vividly. The "control" hypothesis (right) holds that an unconscious impulse will become conscious when patients remove repressions after determining by unconscious reasoning that they can safely experience the impulse. Patients are predicted to feel little anxiety and to experience the undisguised impulse vividly. The author's findings support the control hypothesis.

it is disguised, so that what becomes conscious is a much milder, derivative version of the impulse. Because the disguise hides the original impulse's intensity and impetus to action, the milder impulse escapes the usual repressive forces. For example, someone's anger at the therapist may enter consciousness in the form of an apparently isolated, "silly" fantasy of tripping the therapist.

The dynamic hypothesis predicts that if an impulse emerges because it overwhelms the forces of repression, it will be in conflict with these forces as it becomes conscious; consequently, patients will be tense and anxious. The hypothesis also predicts that if an impulse emerges because it has been disguised, it will emerge without producing anxiety. Because in the instance of disguise patients will have little awareness of the power of the original impulse, the hypothesis further predicts that they will not experience the impulse vividly.

I should note here that the word "experience" has a specific meaning, which is based on a standardized instrument known as the Experiencing Scale. People are said to be vividly experiencing a thought or feeling if they articulate it clearly and focus on understanding its significance. Individuals who talk in vague terms and whose words seem detached from their feelings are deemed to be weakly experiencing a thought or feeling.

In contrast to the dynamic hypothesis, the control hypothesis holds that, far from frustrating the patient, the therapist's noncritical attitude and pledge of confidentiality create an atmosphere of security. Patients therefore may conclude unconsciously that they can safely bring to consciousness certain repressed material. For example, a man who has consistently repressed hostile impulses out of fear of provoking retaliation may decide in therapy that he can express his anger at the therapist without risking punishment. He may then lift the repressions opposing that anger.

The control hypothesis postulates that because patients bring forth repressed material only after they have unconsciously overcome their worry about the consequences, they will not feel especially anxious as they become aware of the material. Moreover, having no need to disguise their thoughts and feelings, they will be able to face and reflect on them; in other words, they will experience them vividly.

In sum, then, the competing predictions are quite distinct. The dynamic hypothesis predicts either great anxie-

ty or, in the case of a disguised impulse, low anxiety coupled with low experiencing of the emerging material. The control hypothesis, in contrast, predicts low anxiety coupled with vivid experiencing.

To evaluate which prediction is correct, we examined the mental functioning of one patient, Mrs. C, during psychoanalysis, an intensive form of therapy in which a patient sees the analyst four or five times a week. (Analysts are psychotherapists who have undergone several years of special training in Freudian theory and technique.)

Our basic task in this study was conceptually quite simple: to determine Mrs. C's levels of anxiety and experiencing at the moment she became aware of previously repressed material. This undertaking was easier said than accomplished, however, as a much simplified description of our careful and time-consuming methods will demonstrate.

In all of the studies we conduct, our data are collected from verbatim transcripts of therapy sessions that have been tape-recorded with the patient's consent. The transcripts provide accurate, permanent data and permit work done by one team of investigators to be double-checked by other teams.

In this particular study we examined the transcripts of Mrs. C's first 100 sessions with her analyst, who was male. To begin identifying material that was repressed early in the analysis but later emerged spontaneously, we first isolated all mental contents—ideas, attitudes, memories and feelings—that appeared in the transcripts of later sessions (sessions 41 to 100) but not in earlier transcripts. For instance, we found that in one of Mrs. C's later sessions she recalled wanting to kill her brother and that neither she nor her therapist had made any mention of such a desire earlier.

Mrs. C might actually have been aware of some of the new items even though she had not discussed them. Such items would not qualify as having been repressed, and so we had to eliminate them from consideration. To do so, we asked some 20 analysts or analysts-in-training to act as judges. We gave each judge our list of new contents, along with condensed versions of the transcripts of the first 10 analytic sessions. The judges then determined, on the basis of their own understandings of the patient's problems, which items they thought had been repressed during the first 10 sessions. (As is good scientific prac-

tice, our judges are always "blind" to extraneous information that could influence their determinations.) The judges also indicated on a five-point rating scale the degree of confidence they had in each assessment. We accepted only those items that were judged reliably to have been repressed—items that received a mean confidence rating of 4 or 5.

Now we had a new list of items that had been repressed and had then become conscious. Our next task was to eliminate contents that were in any way suggested to Mrs. C by her therapist. We gave independent judges the new list, together with a list of everything the analyst had said during the first 100 sessions. The judges found only one content that had been discussed by the therapist; that content was eliminated.

Only then were we in a position to measure Mrs. C's anxiety level and degree of experiencing during the emergence of previously repressed material. We gave transcripts of five-minute segments, or excerpts, of her speech during therapy to two sets of judges, who independently rated them on either of two scales designed to measure anxiety. (We included every segment assumed to contain previously repressed material, together with many segments chosen at random. The judges were blind as to which segment was which.) One of the scales, the Mahl Scale, assesses anxiety based on the frequency of speech disruptions; more disruptions reflect higher anxiety. The other, the Gottschalk-Gleser Scale, assesses anxiety based on the frequency of references to certain topics—for instance, mutilation, shame and death.

From the mean values of the judges' ratings, we were able to conclude that Mrs. C was no more anxious when the repressed material was emerging than at other times. Indeed, ratings made with the Mahl Scale indicated that she was much less anxious than usual when the repressed material was becoming conscious. (All of the findings I discuss are highly statistically significant unless otherwise noted.)

The Experiencing Scale served for rating how vividly Mrs. C experienced the emerging contents. Based on an analysis of the same segments as before, we found that when previously repressed contents were reaching awareness, Mrs. C experienced them more vividly than she experienced randomly selected contents.

Mrs. C's low level of anxiety and her vivid experiencing are compatible

with the control hypothesis but not with the dynamic hypothesis. This result indicates that patients most often bring forth repressed material spontaneously because the therapeutic setting makes doing so seem safe, not because repressed impulses have become intensified by frustration.

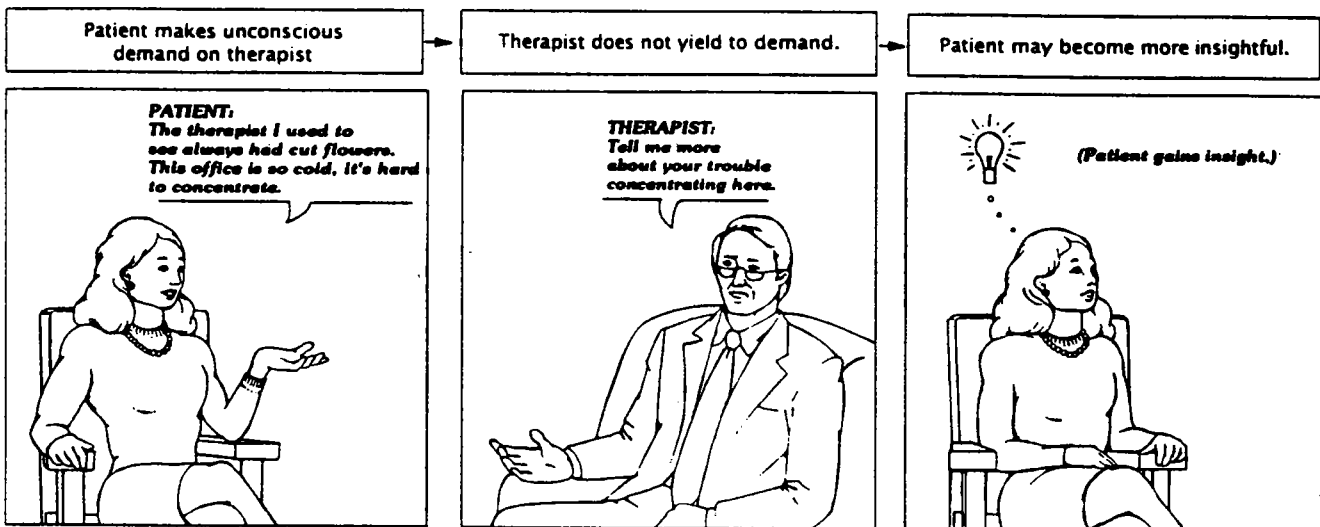
In another test of the two hypotheses, we examined why a particular sequence of events happens frequently in many analyses. In this sequence a patient unconsciously makes

a powerful demand on the analyst. (For example, a male patient may, by describing a sexual fantasy involving a woman who resembles his female therapist, unconsciously express a wish to have a sexual relationship with the therapist.) The analyst, in responding, does not yield to the demand but instead reacts in a nonyielding but noncritical way—perhaps by interpreting the patient's statement or asking a question. After receiving such a nonyielding reply, certain patients may gain insight into their uncon-

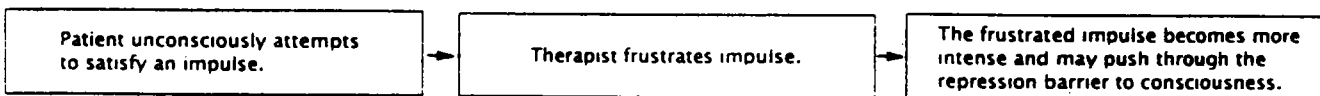
scious motivations and make progress in treatment.

The dynamic hypothesis explains the sequence by assuming that the demands are usually attempts to gratify repressed impulses. By not giving in to the demand, the analyst frustrates the impulse, causing it to become more intense. If the impulse becomes powerful enough, it may break through the repressive barrier to consciousness; if it remains repressed, it may, by its unconscious pressure, facilitate the therapeutic process.

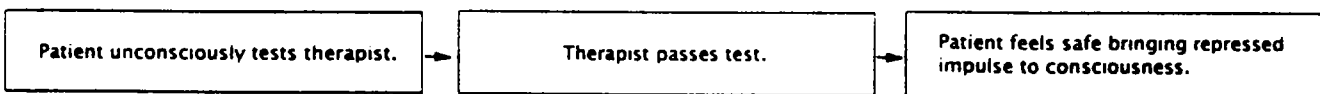
**a THE OBSERVATION:**



**b HOW THE DYNAMIC HYPOTHESIS EXPLAINS THE OBSERVATION:**



**c HOW THE CONTROL HYPOTHESIS EXPLAINS THE OBSERVATION:**



**d THE RESULTS**

CHANGE IN PATIENT'S BEHAVIOR	PREDICTED BY DYNAMIC HYPOTHESIS	PREDICTED BY CONTROL HYPOTHESIS	RESULTS
Change in anxiety	Increase	Decrease	Decrease
Change in relaxation	Decrease	Increase	Increase
Change in boldness	—	Increase	Increase
Change in loving	—	Increase	Increase

DYNAMIC AND CONTROL HYPOTHESES offer different explanations for the observation that patients sometimes gain insight into themselves after they make an unconscious demand on the psychotherapist (a)—such as a veiled demand for an apology (cartoon). The dynamic hypothesis (b) assumes that patients make such demands because of an unconscious desire to satisfy their impulses (a hostile impulse, in the cartoon). If the therapist frustrates an impulse by not yielding, the impulse intensifies and may break through to consciousness. (The woman in the cartoon might realize she wants to hurt the therapist.) The resulting prediction is that as patients become

aware of their repressed impulses, they will become more anxious than usual and less relaxed. The control hypothesis (c) assumes that patients make demands as a test, to determine whether the therapist can comfortably tolerate hearing about repressed material. It holds that patients will be reassured by seeing that the therapist is comfortable and will then lift their repressions. (The woman in the cartoon might realize she does not have to worry that her hostility will hurt the therapist easily.) Hence, they will feel less anxious than usual and more relaxed; they will also feel bolder and more loving. Again, a test of the predictions (d) was supportive of the control hypothesis.

The control hypothesis, in contrast, assumes patients often have quite a different motivation when they unconsciously make demands. Recall that the control hypothesis assumes patients unconsciously want to become aware of repressed material. Yet they also fear that expressing certain of their repressed thoughts and feelings might endanger them by damaging their relationship with the therapist. They therefore make unconscious demands as a means of indirectly testing the therapist's tolerance of such thoughts and feelings. If patients see that the therapist does indeed comfortably tolerate their demands (thereby passing their tests), they may gain the sense of safety needed to lift their repressions. For example, the man who unconsciously attempts to seduce his female therapist may feel reassured by finding that the therapist is not seducible and also is not angered by his sexual demands; he may then gain confidence in her and become less afraid of confronting his repressed sexual interest in her. (The control hypothesis also assumes that for some patients, "passing the test" actually requires the therapist to yield to certain unconscious demands. Nevertheless, for the sake of study, we focus only on instances in which the therapist passes the test by not yielding.)

What predictions do the two hypotheses make about patients' responses to the therapist's nonyielding behavior? The dynamic hypothesis predicts that after the therapist's response, the patients' frustrated impulses will intensify and come into increased conflict with repressive forces, and so the patients will become more anxious and less relaxed. In contrast, the control hypothesis predicts that because certain patients feel reassured by the therapist's nonyielding response, they will become less anxious and more relaxed.

The control hypothesis also makes other predictions about the patients' response, ones the dynamic hypothesis does not address. It predicts that after a test is passed, patients will feel more loving toward the therapist, whom they will view as helpful. Moreover, because patients will feel safer, they are likely to become emboldened—free to express themselves more directly.

To test these predictions, we once again studied the transcripts of the first 100 sessions of Mrs. C's analysis. As our research design required, Mrs. C is a person who seemed to benefit more when her therapist did not

accede to her unconscious demands than when he did.

We identified a large number of interactions in which Mrs. C made a powerful unconscious demand on the analyst. To compare the predictions of the competing hypotheses directly, we then honed this list so that it would include only demands that fit the criteria of both hypotheses—demands that could simultaneously be construed as attempts to gratify an unconscious impulse and as important unconscious tests.

We did so by asking judges who believed in the dynamic hypothesis to identify instances in which Mrs. C was trying to gratify an important unconscious impulse and by asking judges who believed in the control hypothesis to select instances in which Mrs. C was unconsciously posing an important test of the analyst. We then picked out the interactions that both groups of judges selected: the overlap set of interactions.

Next we rated the interventions, or responses, made by the therapist in these selected interactions. Much as we did before, we asked judges accustomed to thinking in terms of the dynamic hypothesis to rate each intervention according to how well it frustrated Mrs. C's unconscious impulses. At the same time, we asked judges accustomed to thinking in terms of the control hypothesis to decide how well the interventions passed her unconscious tests. This procedure enabled us to distinguish interventions that frustrated Mrs. C's impulses or passed her tests from those that acceded to her demands or failed to pass her tests. (It also enabled us to correlate the ratings of the two sets of judges, to assure ourselves that, as our research plan required, the interventions one set of judges saw as frustrating Mrs. C's unconscious impulses were the same ones the other set of judges saw as passing her unconscious tests.)

Now we asked judges to rate segments of Mrs. C's speech (before and after the intervention) on separate scales designed to assess anxiety, relaxation, boldness and loving feelings. A different set of judges applied each scale, and all judges were blind as to whether a segment came before or after an intervention. We then calculated the changes in Mrs. C's ratings on each scale by means of a statistical method that yields what is called a residualized gain score.

Our compilation of the data re-

vealed that when the analyst did not accede to Mrs. C's unconscious demands (and therefore either passed her tests or frustrated her wishes), Mrs. C became less anxious, bolder, more relaxed and more loving. Taken together, our results provide support for the control hypothesis. They indicate that patients make unconscious demands on therapists as a way of assuring themselves that they can safely confront the thoughts, feelings and memories that are blocked by repression.

How can therapists best help patients gain insight? I have developed a version of the control hypothesis that addresses this issue. My version specifies the kinds of interpretations that will have an immediate beneficial effect on patients. Moreover, it predicts that such interpretations will contribute to the overall value of the therapy.

My hypothesis, which my colleagues and I have now tested, assumes that psychological problems are rooted not in repressed impulses that maladaptively seek gratification (as the dynamic hypothesis would say) but in painful ideas known as "pathogenic" beliefs. These unconscious, irrational ideas cause, and help to maintain, psychological disturbance. They are maladaptive in that they prevent people from seeking certain highly desirable goals; the beliefs warn people that if they do try to attain such goals, they will endanger themselves and suffer fear, anxiety, guilt, shame or remorse. Pathogenic beliefs can vary from person to person. For instance, one man may suffer from the belief that he should not seek independence, lest he make those close to him feel rejected and unhappy; another may suffer from the belief that if he seeks a sexual relationship with a woman to whom he is attracted, he will be severely punished.

Patients in psychotherapy are highly motivated to disconfirm—disprove—their pathogenic beliefs so that they will feel safe in moving toward the goals those unconscious beliefs warn them against. They work to disprove the beliefs in part by unconsciously testing them in relation to the therapist, sometimes by making unconscious demands and sometimes in other ways. For instance, a woman who feared she would hurt her parents and her male therapist by becoming independent might experiment with independent behavior in her sessions by disagreeing with the therapist's opinions and then unconscious-

ly monitoring him to see if he feels hurt. Moreover, patients use the interpretations made by the therapist to gain insight into their unconscious beliefs and to realize that the dangers their beliefs warn against are not real.

Because the behavior of patients in treatment is directed unconsciously at disproving their pathogenic beliefs and moving toward certain goals, it can be said to be planful. I therefore label as "pro-plan" those interpretations that would be expected to help patients carry out their unconscious plans and as "anti-plan" those interpretations that tend to hinder such progress.

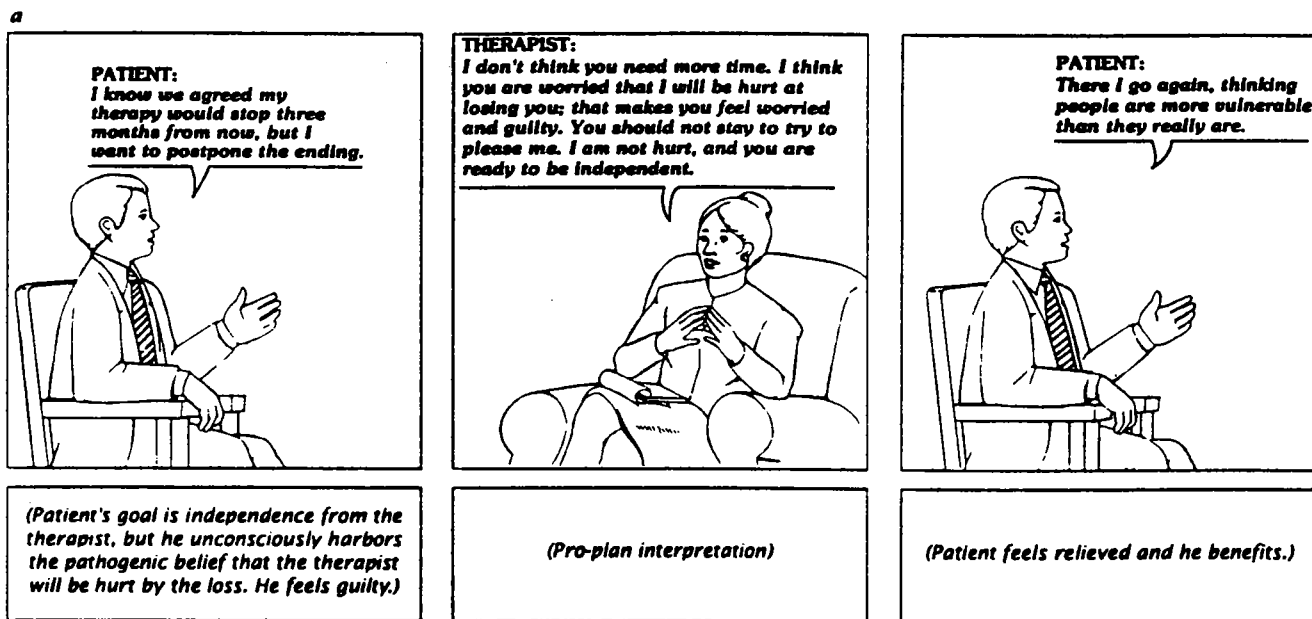
To understand the concept of planful interpretations better, consider the hypothetical case of a young man who feels guilty about wanting to become independent from his parents

because he unconsciously believes that if he weakens his ties, his parents will be devastated. One of his unconscious plans during therapy would be to gather evidence against this belief so that he can feel comfortable, say, moving out of the house. He might begin carrying out his plan by testing unconsciously the therapist's ability to tolerate a bid for independence. For instance, he might discuss his fantasy of taking a job in another city. He might find helpful—pro-plan—the interpretation that he is reluctant to consider seriously such a move for fear of hurting his therapist and family, whereas he might find hindering—anti-plan—the suggestion that his fantasy reflects an unconscious desire to avoid facing his dependence on his therapist and family.

My hypothesis gives rise to the pre-

dition that patients will react differently to pro-plan interpretations than to irrelevant or anti-plan interpretations. The hypothesis predicts that when a pro-plan interpretation is offered, patients will gain insight into their beliefs and will experience their feelings vividly. When an anti-plan interpretation is offered, however, patients will feel conflicted; they will also become less insightful and experience their feelings less vividly.

My colleagues and I have tested these predictions in studies of three short-term psychoanalytic therapies, each lasting 16 weeks. Our methods for correlating pro-plan and anti-plan interpretations with levels of insight and experiencing were straightforward. First we had clinician judges determine a patient's pathogen-



**b WHAT WAS STUDIED**



**c WHAT WAS MEASURED**



"PRO-PAN" INTERVENTION by a therapist is meant to help a patient disprove an unconscious belief (a). The author's version of the control hypothesis holds that patients harbor unconscious "pathogenic" beliefs that warn of dire consequences (such as guilt or shame) if certain goals are sought. In therapy, patients unconsciously plan to disprove these handicapping beliefs (left). The hypothesis predicts that pro-plan comments by the therapist—those that support the plan (center)—will help patients, who will gain insight into their unconscious motivations and will experience their feelings vividly

(right). Comments that are "anti-plan"—that support pathogenic beliefs—are predicted to be unhelpful and to be followed by a decline in insight and experiencing. In a test of the hypothesis, clinician judges were given transcribed segments of a patient's speech before and after the therapist's interpretations (b). The judges scored the patient's levels of insight and experiencing on standard scales (c). Other judges independently evaluated the "planfulness" of the interpretations. Correlations of planfulness with changes in insight and experiencing suggest that pro-plan interpretations are indeed beneficial.

ic beliefs and the goals those beliefs warned against. The judges did this by examining the transcripts of the intake interview (which preceded the actual start of therapy) and the first two therapeutic sessions. On the basis of their understandings of the transcripts, the judges then generated what they considered to be pro-plan insights: ones that would be expected to help disprove the patient's pathogenic beliefs.

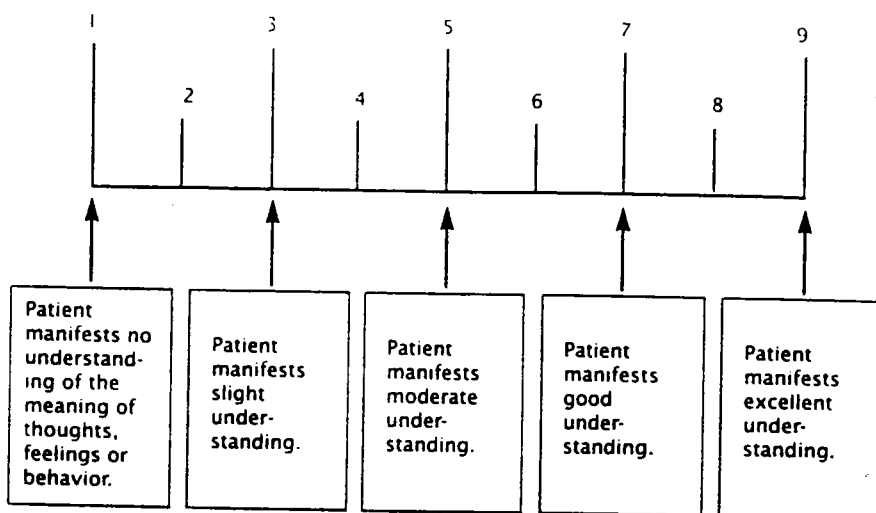
Next we gave a second set of clinicians the lists of beliefs, goals and proposed helpful insights, along with a list we had compiled of the therapist's actual interventions, which consisted of all comments intended to convey insight. On the basis of these lists, the judges (who were blind to the patient's responses) rated the comments on a scale ranging from strongly anti-plan to strongly pro-plan.

We still had to determine the extent to which the patient's insight and experience changed in response to the therapist's interventions. This we did by isolating stretches of the patient's speech immediately before an interpretation was made and immediately after. One set of judges, who were blind both to the order in which the patient's comments were made and to the therapist's interventions, rated each segment on what is called the Morgan Patient Insight Scale. Another set of judges rated the segments on the Experiencing Scale. Then residualized gain scores were calculated.

For each patient we found a strong correlation between pro-plan interpretations and improvements in both insight and level of experiencing. For instance, when the mean level of planfulness of all interpretations in a given therapy session was correlated with the mean value of the patient's level of experiencing in that session, the correlation was very high: .78 for one patient, .54 for the second and .57 for the third. Hence, the research supported my hypothesis.

Does the strategy of making pro-plan interpretations actually help to improve the mental health of patients in the long run, or are the positive effects generally restricted to the session during which the interpretations are made? In an attempt to find out, we interviewed the patients and assessed their mental health (by a battery of so-called outcome measures) six months after they parted ways with their therapists.

One patient, it turns out, did very well, another did moderately well and the third did poorly; these outcomes correlated well with the kinds of inter-



SCALE for rating patients' insight into their thoughts, feelings and behaviors is one of many tools by which the author and his colleagues quantify observations of patients in their research. The rating scale shown here is much simpler than the Morgan Patient Insight Scale mentioned in the text but produces comparable results.

pretations the patients received. When we calculated the fraction of interpretations that were pro-plan, anti-plan and ambiguous, we found that in the first case, the percentages were 89, 2 and 9, respectively; in the second, they were 80, 2 and 18, and in the third, they were 50, 6 and 44. Although the findings must be replicated in a larger number of cases to be convincing, the data do suggest that patients who receive a high percentage of pro-plan interpretations will do better than patients who do not.

**H**ow, then, does psychotherapy work? Our studies suggest some answers. By demonstrating that pro-plan interpretations are helpful and anti-plan interpretations are not, we have supported the hypothesis that patients suffer from unconscious pathogenic beliefs and that they make and carry out unconscious plans for disproving these beliefs—with the aim of breaking down the obstacles to attaining their conscious and unconscious goals.

Our other studies say something about how patients go about carrying out such plans. The findings are consistent with the assumption that patients bring forward their pathogenic beliefs as well as other unconscious thoughts and feelings only when they decide they may do so safely—that is, without risking internal dangers such as guilt or shame or external dangers such as loss of love. We also found evidence that patients actively seek assurances of safety by unconscious testing of the therapist.

It seems that the cognitive capaci-

ties of the unconscious mind have been underappreciated and that human beings can unconsciously carry out many intellectual tasks, including developing and executing plans for reaching certain goals. The implications for therapy are obvious: good therapists will carefully infer their patients' unconscious goals and strive to offer interpretations designed to advance movement toward these goals.

#### FURTHER READING

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