

## CASE REPORTS

### On the Identification of Warded-Off Mental Contents: An Empirical and Methodological Contribution

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The basic assumption behind psychoanalytic psychotherapy is that mental contents that were once warded off come to emerge in the course of a successful treatment. This paper focuses on specific contents which a patient became aware of during a psychoanalytic treatment. Study 1 describes the method for identifying warded-off contents: Themes were identified that emerged for the first time between Hours 41 and 100; then 20 clinicians read the process notes of the first 10 hours of treatment and judged which of the newly emerging themes had previously been warded off. The judges' ratings were highly reliable and case specific. Studies 2 and 3 validated the ratings (a) by assessing the patient's discomfort when warded-off themes emerged and (b) by examining relevant changes in the patient's memories of early events. Finally, Study 4 explored certain conditions involving the patient-therapist interaction that facilitate the emergence of warded-off contents.

The basic assumption behind psychoanalytic psychotherapy is that mental contents (cognitions, feelings, impulses) that were once warded off come to emerge in the course of a successful treatment. According to this view, some mental content has aroused so much discomfort in the person that he has had to defend himself by warding it off. Because of the defensive process, the content generally remains unconscious; however, in the course of a successful therapy, the person becomes conscious of the content and gains control over it (Freud, 1963). Certain theoretical ideas about this process have been discussed recently by Weiss (1971) and Sampson, Weiss, Mlodnosky, and Hause (1972).

If this view of the therapeutic process is to be systematically studied, we need to be able to identify newly emerging contents that were once warded off. Once this has been done, we could examine the conditions that facilitate their emer-

gence and explore the resulting changes in the person's psychological functioning, both within and outside the therapy.

No formal research method exists at present for identifying warded-off contents unambiguously. Related research literature does exist, of course, but this literature is generally not helpful. For example, the literature on insight might seem relevant, and the role of insight in the therapeutic process has been discussed at length—for example, in the review by Roback (1974). However, the methodology used to study insight has been extremely casual and critical details are often left unspecified. The content of the insight, for example, is not usually stated, so another investigator cannot be sure that the insight involved had any importance to the patient or that it was related to the patient's major problems. Furthermore, the investigator has not generally shown that the content was formerly warded off. Reading Roback's review, one could conclude that insight in therapy is not a single phenomenon but rather a group of phenomena labeled by a single, ill-defined word. Likewise, the literature on the effect of an interpretation would seem relevant, but typical studies (e.g., Garduk & Haggard, 1972) have ignored the content that gets interpreted, implying that an interpretation can be evaluated independently of its

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meaning, accuracy, and importance. Also, this research has not demonstrated that the interpreted content was previously warded off. Similar remarks have been made by other writers (e.g., Fiske, Hunt, Luborsky, Orne, Parloff, Reiser, & Tuma, 1970; Gendlin, 1966; Kiesler, 1966; Malan, 1973).

The present paper focuses instead on specific contents with a particular patient—contents which the patient became aware of during the therapy and which are shown to have had a dynamic significance. This paper has several goals. First, it is designed to describe a method for identifying warded-off contents that emerged in the course of a psychoanalytic treatment; this method is described in Study 1. Second, it provides data to show that the method is reliable and valid; Studies 2 and 3 provide converging lines of evidence which show that the identified contents had in fact been warded off by the patient. Finally, Study 4 examines some circumstances in a therapy that facilitate the emergence of warded-off contents and relates these findings to a theory of therapy.

### STUDY 1

#### THE METHOD AND ITS RELIABILITY

This study was based on a psychoanalytic case, selected because it was the only tape recorded case initially available to the authors. The patient, treated by psychoanalysis for over 4 years, was Mr. B, a young man in his early twenties; he was the third of four children (three brothers and a younger sister). His father was a wealthy businessman and his mother was a housewife. He had recently graduated from college and he came to treatment because he was feeling depressed, lonely, fragile, and sensitive to criticism. He had experienced sexual difficulties (impotence and premature ejaculation) and was currently undecided about a career.

Because the case was intended as a research case, every session of the analysis was tape recorded with the written consent of the patient. The analyst also wrote process notes at the end of each hour. These notes described material that the patient produced during the hours; they did not include commentary, hypotheses, or inferences that might reveal the analyst's thinking.

#### Case Description

The following information is included for the reader's interest. It was not available to the judges or the authors when the study began, nor was it needed for executing the studies.

The case can be organized around Mr. B's early relationship with his parents. His mother was a controlling, intrusive, and irrationally fastidious woman who would not let him be independent. He had impulses to resist her demands but was unable to reject her because of guilt feelings. When he did yield to her wishes, he felt helpless and unmasculine. His revulsion over closeness to his mother generalized to other women, and the combination of defiance, guilt, and anxiety left him at times sexually impotent. During the first 100 hours of the treatment, he became more aware of his identification with his mother, but it was much later in the treatment that his guilt was reduced enough to allow him to feel superior to and different from his mother.

His father, on the other hand, did not protect him from his conflict with his mother or provide him with any effective alternative. He wanted to feel close to his father and win his father's admiration but was unable to do so. Furthermore, he felt that his father favored his two older brothers, who had been very successful in school and in athletics. He tried to acquire a stable identity for himself by assuming the roles of different people that he casually met and admired (e.g., a writer, a Jewish scholar, a group therapist). Such fantasies temporarily helped him feel stronger, but he then became preoccupied with whether he was real or fake. Furthermore, the distance between himself and his father was so distressing that he came to deny any negative feelings toward his father. Thus, the first 50 sessions showed little ambivalence toward the father. The references were primarily positive, admiring, and idealizing and only later revealed the negative side of the ambivalence as well.

Mr. B's interaction with the analyst was an important vehicle for this change. During the first 100 hours, he made numerous demands that the analyst advise him, direct him, resolve his confusion, and so on. In this way, he invited the analyst to be the powerful authority and treat him like a helpless child. When the analyst did not infantilize him, however, Mr. B was able to become increasingly stubborn, testy, and uncooperative; he came late for appointments, delayed paying his bill, and teased the analyst with information that he was withholding. As described in Study 4, he used these interactions to acquire an increased capacity to criticize, get angry, and disagree with the analyst. At the same time, he began revealing negative feelings toward his father by recalling his father's selfishness and sadism and by acknowledging his own disappointment, frustration, and hostility.

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Various changes occurred in Mr. B's behavior during the treatment. Initially, he could not involve himself in any job or get close to a woman; he felt crazy, unreal, superficial, and depressed. Eventually, however, he became less depressed, enrolled in an excellent professional school, achieved academic success there, and developed a deeper relationship with a woman.

### Method

*Selection of material.* First, mental contents had to be identified that emerged in the course of the treatment and might be judged to have been warded off. Two psychologists read the analyst's process notes for Hours 1-100, looking for all new themes that emerged between Hours 41 and 100 (i.e., themes that had not appeared in the first 40 hours). They then reread the process notes to check that each theme was actually new. Finally, they compared notes and located 50 themes that they agreed to be new.

Each theme was summarized by a simple statement designed to be rated by judges. (The 50 statements are shown in the Display.) Each statement summarizes a thought, perception,

wish, impulse, or memory that occurred to the patient about past or present events and referred to the patient himself, his parents, his siblings, his friends, or the analyst.

One theme, for example, which emerged in Hour 63, concerned his father's greediness. It was summarized by the statement, "He thinks of his father as greedy." As a check that judges would not identify previously mentioned themes as warded off, two additional themes were selected from the first 10 hours as dummy items. One theme, "He fears looking ridiculous," emerged in Hour 5, and the other, "He has experienced disgust and pleasure in oral sex," emerged in Hour 10. These themes were also included in the set to make a total of 52 statements.

A simple statement out of context is necessarily ambiguous, because one cannot tell whether the theme emerged by itself or as an incidental part of some broader idea. Therefore, a brief fragment (4 or 5 typewritten lines) was taken from the process notes to show the context in which the idea had emerged. For example, for the statement, "He is like his mother in his orderliness," the passage from the process notes read:

#### NEWLY EMERGING THEMES (HOURS 40-100)

1. He has never held his brother's baby.
2. He thinks of his father as greedy.
3. He was not as good at math as Ronny and his father.
4. He was afraid that a monster would enter his bedroom.
5. He is like his mother in his orderliness.
6. He is confused as to whether or not he enjoyed himself last night.
7. He was late in masturbating.
8. He has fantasies of beating people.
9. He wants to show that he is brighter than his therapist.
10. His image of himself as honest may be phony.
11. After he screws a girl, he wants to be away from her.
12. He felt jealous of his sister.
13. He felt degraded serving drinks at Paul's.
14. He wants the therapist to regard him as special.
15. His father and brothers were less perfectionistic than he.
16. He competed with his brothers for his parents' love.
17. His father was the dominant member of the family.
18. He is sadistic toward women.
19. He used to ignore his sister.
20. He wants to assert himself against the therapist.
21. He pretended to love his sister.
22. Sometimes he thinks he might be going crazy.
23. He has experienced disgust and pleasure in oral sex.
24. He blames the therapist for not being more helpful.
25. Sex with girls is a compulsive attempt to prove his masculinity.
26. He always has to have someone to hate.
27. He is repelled by his mother's physical appearance.
28. A green potty chair was important to him.
29. He is jealous of his brothers' wives.
30. It would upset him to think that he is irrational.
31. He fears looking ridiculous.
32. He felt humiliated when other people criticized his new sportscoat.
33. He feels disloyal being critical of his family.
34. Once he thought he was mentally ill.
35. He is afraid his dreams of greatness may never be realized.
36. He had a homosexual experience in the sixth grade.
37. He wonders if he is dependent on the analyst.
38. He was interested in studying his mother's nude body.
39. He has murderous ideas.
40. He needs to be the center of attention.
41. Ronny used to tease him for his poor athletic ability.
42. When he gets what he wants, he does not want it.
43. He wants the therapist to tell him what to do.
44. His father's death might not completely destroy him.
45. He is angry at his father for infantilizing him.
46. His mother protected him from his father's anger.
47. He does not feel like cooperating with the therapist.
48. He wanted his father to play baseball with him more.
49. He wanted to dress up like a girl on Halloween.
50. A toy truck he wanted did not interest him for long.
51. He wonders whether the therapist screws any of his patients.
52. He defied his father.

He thought of his mother's neurotic cleanliness and orderliness. She would never trust others to do the dishes and had to do them herself. The patient feels he has taken over her characteristic of being very neat and orderly now that he is living alone.

The judge read the passage along with the statement, but he was asked to make a judgment about the statement per se. This procedure was designed to maximize both the reliability and the validity of the judgments: The judge rated only a simple statement, thereby increasing the reliability, but he also read the accompanying passage to achieve higher validity.

*Judges' ratings.* Twenty clinicians, including psychiatrists, psychologists, and social workers who were advanced trainees and staff members at the Mt. Zion Psychiatric Clinic, were asked to consider each statement and judge whether it had been warded off early in the treatment. Each judge was given a booklet that contained several sections.

First the judge received minimal background information about the patient (e.g., his age and presenting complaints). Then the judge read the analyst's process notes for the first 10 hours. Because these notes mainly described what the patient had said, they could not directly cue the judge as to what ideas were warded off, so the judge had to draw his inference from indirect cues (e.g., from a lack of ambivalence where ambivalence is usual).

Then the judge was shown the 52 statements, each with its accompanying passage. He was told that the theme had emerged between Hours 41 and 100 and he was asked to decide whether he thought that idea had previously been warded off. He was told to use whatever criterion he wanted, but that as one possibility he might want to ask himself whether the patient could have produced that idea in the first 10 hours, or whether it would have aroused too much anxiety for him to face it early in the treatment.<sup>1</sup> The

<sup>1</sup> Each content emerged for the first time after Hour 40, but all newly emerging contents were not necessarily warded off. Various reasons could exist for the late emergence of an idea. For example, the patient might have recognized the idea earlier but simply had no occasion to emit it. Or he might have deliberately suppressed it. Or the idea might simply never have occurred to him before (for nondynamic reasons). A judge would only classify the idea as warded off if he felt that earlier the content would have aroused so much discomfort that the patient would have had to avoid it through some defensive activity. Several criteria are implicit in this judgment, and these criteria will be examined later in the general discussion section.

judge was asked to make a rating on a 5-point scale. A rating of 5 meant that he strongly believed that the idea was warded off, and a score of 1 meant that he strongly believed that the idea was not warded off. Intermediate values represented varying degrees of uncertainty. The higher the rating, the more strongly the judge considered the idea to have been warded off.

Finally, after the judge completed all of his ratings, he was asked to consider the statements he had rated 4 or 5 and to fill out a checklist for each one. The checklist supplied 11 reasons for classifying a given statement as warded off, and he was asked to check all of the reasons that applied.

*Analyst's ratings.* The analyst was also asked to rate each statement on a 5-point scale. His ratings were then correlated with those of the judges.

*Control raters' ratings.* A judge's ratings, in part, could be based on the judge's a priori ideas about what is generally warded off and what is not. For example, judges might generally consider intense aggressive and sexual impulses to be warded off, and a priori stereotypes of this kind, though not tied to details of the specific case, could produce agreement among judges. In that case, reading 10 hours of process notes would not contribute significantly to a judge's judgments.

Therefore, another group of clinicians, comparable to the original group of judges, was asked to make ratings of the statements. This group, however, was not given the process notes of the first 10 hours, so they had to make their ratings without the case-specific information of the process notes. For that reason these people are called the control raters.

Altogether there were 20 control raters, consisting of psychiatrists, psychologists, and social workers, who were advanced trainees and staff members at the Mt. Zion Psychiatric Clinic. They were asked to rate the 52 statements on the same 5-point scale. Half of them received no information about the patient and half received the minimal background information presented above about the patient. These two subgroups were alike in all important respects. They did not differ in the nature of their ratings or in the degree of correlation of their ratings with either the judges' or the analyst's ratings. Therefore, the two subgroups have been combined into a single group of 20 control raters. Their ratings were averaged and these values were correlated with the corresponding data from the judges and the analyst.

### Results and Discussion

The ratings of the 20 judges were averaged for each statement and the resulting mean was taken as the scale value for that item. These values were averaged across all statements (mean = 3.22; standard deviation = .69). The lowest value was 1.70 for the item, "He fears looking ridiculous," and the highest value was 4.50 for the item, "He thinks of his father as greedy." The split-half reliability for the 52 items was computed by correlating the mean values of one randomly selected subgroup of 10 judges with the corresponding mean values of the remaining subgroup of 10 judges. The resulting split-half reliability coefficient was .85. Finally, as expected, the two dummy items that were chosen from the early hours correctly received the lowest two values of the entire set, 1.70 and 1.75.

The analyst's ratings ranged from 1 to 5. When these values were averaged, they yielded a mean of 3.12 and a standard deviation of 1.70. The

analyst's ratings were correlated with the values obtained from the panel of judges to produce an  $r$  of .80, significant at  $p < .001$ .

Table 1 shows the 12 items that received the highest judges' ratings and the 12 that received the lowest ratings. The analyst's ratings for these items are also reported. Notice that the analyst had assigned a rating of 5 to each of the top statements and he had generally assigned a rating of 1 (occasionally 2) to the bottom statements. These figures further reflect the close agreement between the judges and the analyst.

Finally, the mean ratings of the control raters were examined. The resulting values ranged from 2.05 to 4.40. The overall mean was 3.11, with a standard deviation of .61, and the split-half reliability was .83. However, the control raters' ratings did not correlate significantly with either the judges' ratings or the analyst's ratings. The former  $r$  was .09, the latter  $r$ , .03, with  $p > .10$  in both cases.

TABLE 1  
RESULTS FOR ITEMS WITH THE HIGHEST AND LOWEST JUDGES' RATINGS

Statement	Mean of judges' ratings	Analyst's rating	Mean of control raters' ratings
<b>Highest ratings</b>			
He thinks of his father as greedy.	4.50	5	2.75
He felt jealous of his sister.	4.20	5	3.15
He is angry at his father for infantilizing him.	4.20	5	2.95
He defied his father.	4.15	5	2.80
He wants to show that he is brighter than his therapist.	4.00	5	3.85
His father's death might not completely destroy him.	4.00	5	3.35
He has fantasies of beating people.	3.95	5	3.90
He wanted to dress up like a girl on Halloween.	3.90	5	4.00
He always has to have someone to hate.	3.85	5	3.30
He has murderous ideas.	3.85	5	3.65
His mother protected him from his father's anger.	3.80	5	3.10
He wonders whether the therapist screws any of his patients.	3.80	5	4.25
<b>Lowest ratings</b>			
He fears looking ridiculous.	1.70	1	2.85
He has experienced disgust and pleasure in oral sex.	1.75	1	3.40
After he screws a girl, he wants to be away from her.	1.90	1	3.25
He is confused as to whether or not he enjoyed himself last night.	2.05	2	2.05
He blames the therapist for not being more helpful.	2.10	2	3.25
He is sadistic toward women.	2.25	1	3.55
He wants the therapist to tell him what to do.	2.25	1	3.50
He needs to be the center of attention.	2.30	1	2.60
When he gets what he wants, he does not want it.	2.35	2	2.55
He is repelled by his mother's physical appearance.	2.65	1	3.95
He does not feel like cooperating with the therapist.	2.65	1	3.80
He was late in masturbating.	2.70	1	3.60

These results suggest that the informed judges, like the analyst, used case-specific information derived from the process notes; their judgments are not based simply on a priori notions of what is warded off. In fact, marked discrepancies exist between the control raters' ratings and those of the judges. The item with the highest rating, an average of 4.40, by the control raters was "He was interested in studying his mother's nude body." Informed judges, however, rated the item somewhat lower at 3.40. Table 1 shows other discrepancies of this kind.

As mentioned above, the judge was also asked to consider each item that he had rated 4 or 5 and to check all the reasons that existed for labeling that item as warded off. The mean number of reasons checked was 2.77 for statements rated 4, and 3.18 for statements rated 5. These means differed significantly,  $t(19) = 2.35$ ,  $p < .05$ . Thus, the higher rating was used when more reasons existed for classifying the item as warded off.

One of the reasons on the checklist concerned the nature of the content itself: "The content of the statement per se suggested that the idea had been warded off." Another reason referred to the judge's own formulation of the case: "My case formulation suggested that the content had been warded off." (A case formulation is a theory about the case that a judge develops to be able to derive case-specific clinical inferences.) Other reasons on the checklist were more general, for example, "My subjective experience (introspections, clinical intuitions, or empathy with the patient) suggested that the content had been warded off," or "My clinical experience with another case similar to this one suggested that the content had been warded off."

The number of times a judge checked a particular reason was recorded and expressed as a proportion of the number of opportunities for checking that reason. This proportion was computed separately for every judge for the items rated 4 and for the items rated 5. These proportions were then averaged across judges. The reason checked most often was the one concerning the case formulation. The mean proportion was .43 for statements rated 4, and .49 for statements rated 5. The second most frequently checked reason was the one concerning the judge's subjective experience; the means were .40 and .42. Other reasons were checked substantially less often, usually less than .25 of the time. According to the judges' reports, then, they frequently developed and used a case formulation as a basis for their ratings.

To summarize, judges made reliable judgments largely by formulating the case from the process notes of the first 10 hours. They agreed well with the analyst, but they did not agree with naive control raters who had no way of formulating the case. The ratings thus provide a cue to the nature of the judges' case formulations and suggest agreement among judges in their case formulation.

## STUDY 2

### VALIDITY OF RATINGS: DISCOMFORT QUOTIENT

Having established the reliability of the judges' ratings in Study 1, our next step was to establish their validity. One line of validating evidence comes from the data of Study 1. A critical examination of those data will provide the rationale for Study 2.

After Study 1 was completed, the analyst was asked to write a brief description of the case. His description stressed that the patient initially idealized the father and was warding off critical ideas and hostile feelings toward him. Among the statements of Study 1, nine mentioned the father. Seven of them received judges' ratings of 3.5 or higher, and four of these had ratings of 4.0 or higher. (Five statements that expressed nonidealized feelings toward the father are shown in Table 1 among the statements with the highest ratings. For those statements, the mean judges' rating was 4.13, and the mean of the control raters' ratings was 2.99.) Thus, judges detected this tendency in the patient from the limited information given in the process notes on 10 hours. This agreement with the analyst's view of the case was reflected, of course, by the  $r$  of .80 between the judges' and the analyst's ratings.

Agreement of this kind does not really validate the ratings, however, because the analyst's case formulation can be viewed as simply one additional judge's ratings. One could argue that all of the information of Study 1 concerns only judges' ratings: Although the judges and the analyst are consistent with each other, neither is necessarily making valid inferences; they may simply be making correlated errors. Thus, a critic could argue that the validity of the ratings can only be assessed through primary data supplied by the patient himself. Therefore, further steps were needed to validate the judges' ratings.

If the judges' ratings are valid, one might expect the patient to exhibit heightened discomfort at the moment a content with a high rating first emerged. Heightened discomfort at that

moment may not be a necessary condition for its having been warded off, but the presence of discomfort would clearly document its troublesome nature for the patient. Therefore, some measure of the patient's discomfort was needed. Several investigators (Dibner, 1956; Kasl & Mahl, 1958, 1965; Mahl, 1956, 1959) have shown that disruptions of a person's speech reflect his discomfort at the time the speech was emitted, and it was decided to modify Mahl's measure (e.g., Kasl & Mahl, 1965) to derive an index of the patient's discomfort at the time the warded-off material emerged.

### Method

The six items with the highest judges' ratings and the six with the lowest ratings (not counting the two dummy items) were considered. Those with the highest ratings are called W items (for "warded off") and those with the lowest rating are called N items (for "nonwarded off"). Each item came from a different hour and the 12 hours were typed verbatim from the tape recordings of the hours. All hours were typed by the same typist, and each hour was proofread by the first author. The typescript included all pauses, speech dysfluencies, word repetitions, etc.

There was one W hour for which the warded-off theme was exceedingly brief, occupying only four lines of type (less than 20 sec of speech). Likewise, one N theme was also exceedingly brief. In all the remaining hours—five W hours and five N hours—the theme lasted more than 1 min and was over 14 lines of type. The following procedure was applied to these 10 hours: Each hour was divided into successive episodes of patient talk. An episode is defined as an uninterrupted sequence of patient talk that concerns one theme. (Two or more individuals identified and agreed on each change of theme.) An hour always opened with the patient talking. The episode ended when the theme changed or when the therapist interrupted with some comment. The next episode began with the next period of patient speech.

On the average, an episode was 20–25 lines of type and lasted about 2–2½ min. Table 2 shows the five W themes and the five N themes. For each statement, the table shows the hour in which the theme emerged, the position of the episode in the hour, the length of that episode, and the total number of episodes in the hour. Two hours have fewer episodes than usual because the patient arrived late.

The measure which was devised to determine the patient's level of discomfort included four

classes of indicators; a point was scored every time one of these indicators was noted. One class included filler words and phrases like, "you know," "I mean," "I don't know," "pardon me," and "yeah." A second class contained various forms of speech dysfluencies: repetitions of a word, false starts, stammers, or slips of the tongue. (A repetition was scored whenever the patient repeated a word or phrase. A false start was scored whenever the patient began to utter a sentence but shifted to a new idea before the first one was completed.) A third class contained particular sounds: a sniff, laugh, cough, sigh, yawn, swallow, or clearing of the throat. Finally, a miscellaneous category was scored whenever the patient's speech was unintelligible, whenever he was silent, and whenever he cracked his knuckles or clicked some marbles.

The total number of indicators in an episode was counted. The total was then divided by the number of lines of type in that episode to yield a discomfort quotient.

### Results and Discussion

The discomfort quotient (DQ) was measured for every episode of each of the 10 hours, yielding values from .58 to 2.67. The overall mean was 1.33 and the standard deviation was .39. The reliability, measured by correlating corresponding values obtained by two different scorers, was .97.

Table 2 shows the DQ of the episodes that contained the five W themes and those that contained five N themes, as well as the mean DQ for each hour. First notice the results for the N hours. The DQ when the theme emerged was 1.20 on the average, and that for the entire hour was 1.21 on the average. Thus, the episode with the newly emerging N theme had about the same DQ as that for the entire hour.

The W hours, on the other hand, exhibited significantly higher DQs. The corresponding means were substantially higher at 1.83 and 1.51, and the various DQs showed almost no overlap with those of the N hours. When an analysis of variance was performed on the data of the last two columns in Table 2, the overall difference between the W values and the N values was found to be highly significant.  $F(1, 8) = 13.14$ ,  $p < .01$ . However, neither the column difference nor the interaction was significant.

These data clearly suggest that a newly emerging W theme shows significantly more discomfort than does an N theme; also, the W hours in general show significantly more discomfort than the N hours. Apparently, an hour in which a once warded-off content emerges generally contains

TABLE 2  
DATA FOR HOURS WITH THE WARDED-OFF AND NOT WARDED-OFF THEMES

Theme	Hour number	Episode number	Length of episode (no. of lines)	Total no. of episodes in hour	Discomfort quotient of theme	Mean discomfort quotient of hour
<b>Warded off</b>						
He thinks of his father as greedy.	63	16	36.0	29	2.02	1.48
He felt jealous of his sister.	58	4	14.2	22	1.62	1.18
He is angry at his father for infantilizing him.	47	8	14.6	8	1.62	1.85
He defied his father.	71	19	17.0	19	1.65	1.44
His father's death might not completely destroy him.	44	22	20.0	23	2.25	1.60
Means					1.83	1.51
<b>Not warded off</b>						
After he screws a girl, he wants to be away from her.	83	2	34.6	24	1.18	1.12
He is confused as to whether or not he enjoyed himself last night.	79	14	36.0	26	1.04	1.35
He blames the therapist for not being more helpful.	68	9	19.0	15	.79	1.03
He is sadistic toward women.	81	20	24.0	21	1.64	1.32
He needs to be the center of attention	85	13	31.0	22	1.33	1.22
Means					1.20	1.21

Note. Means of judges' ratings were 4.21 and 2.12 for warded-off and not warded-off themes, respectively.

more discomfort, both at the time the content emerges and elsewhere throughout the hour.

This point, in part, validates the judges' ratings. The discomfort quotient, which was independent of the judges' ratings, objectively measured the patient's discomfort and clearly differentiated the W and N themes. Thus, from their limited information, the judges validly detected themes that could independently be shown to have aroused discomfort in the patient.

### STUDY 3

#### VALIDITY OF RATINGS: CHANGES IN MEMORIES

As mentioned above, a number of items with high ratings were statements that criticized the father. The ratings implied that initially the patient could not tolerate these critical feelings, though later he came to do so. Thus, the judges' ratings implied a change in the patient's manifest attitude toward the father from initially positive to negative. This attitudinal shift should be

directly observable in the patient's references to the father.

Not all references to the father are useful, however. Changes observed in the patient's description of his current relationship with the father, for example, might be due to a real change in the father-son relationship. However, if we are to show that critical feelings had been warded off, the newly emerging feelings must be attached to events that predated the therapy. Therefore, memories of the father were examined, all of which reported relatively early events.

Study 3 therefore examined one class of cognitions, namely, memories about the father. Two groups of memories were examined: those that occurred relatively early in the treatment and those that occurred later. The hypothesis claimed that an attitudinal change would be observed as the patient reported memories of the father that were initially positive and idealizing but later negative and critical. This study was part of a larger methodological project, which will be reported elsewhere, concerning the sensitivity of

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process notes in detecting significant therapeutic changes.

### Method

Two blocks of sessions were examined: Hours 1-30 and Hours 60-90. Equipment difficulties arose during Hour 69, so some of that hour was not available. A listener, who was not familiar with the goals of this research, listened to all of these tape-recorded hours and isolated all memories that mentioned the father. These memories were then typed verbatim from the tapes and placed in random order.

Two judges were asked to sort the memories into two categories that were termed positive memories and negative memories. A positive memory was one that (a) expressed admiration for the father (e.g., how masculine and strong he was), (b) stated how dependent the patient was on him, or (c) expressed a satisfied wish for closeness with him. A negative memory was one that (a) described the father as not admirable (e.g., how he sometimes became cruel and out of control), (b) stated a conflict between him and the patient, or (c) expressed a frustrated wish for closeness with him. Explicit scoring rules were devised to specify these criteria in detail. The two judges used the rules to sort the memories into the two categories.

### Results and Discussion

Altogether 37 memories were isolated—15 in the early block and 22 in the later block. The two judges agreed on their classification in 95% of the cases; they later conferred to resolve the disagreements.

Following is an example of a positive memory from Hour 19:

That picture reminds me . . . a whole lot . . . of my country place, you know. I get the feeling . . . of the same kind of warmth that I was describing in the last session; you know, it's kind of a thing where, you know, I feel like I'm walking through a field with my dad, you know, when I see this and that; later we'll go back to the house and we'll sit down and we'll have lunch and a big fire. Jesus, I miss that so much.

An example of a negative memory is the following from Hour 79:

There were certain times when my father lost it . . . when he'd really get mad and hit us. There are famous automobile incidents when my dad's expression for hitting us was "bashing" us, when he would warn us children in the back seat, you know, to shut up and quit playing around and making so much noise . . . and the warnings would really

come. "Ok, I'm going to pull over the car and bash you," and if it didn't stop, sometimes he just really did it, you know. Sometimes in anger, you know, you could see his . . . the muscles in his jaw tightening up . . . and he would just lose it. He would pull over and really bash us. I was always terrified at him really doing that. I was always terrified of his real wrath, of his real anger.

There were 15 memories in the early block of hours; 12 memories were classified as positive and 3 were classified as negative. On the other hand, there were 22 memories in the later block of hours, 9 of which were classified as positive and 13 as negative,  $\chi^2(1) = 4.11$ ,  $p < .05$  (with a correction for continuity).

Additional memories of the father occurred in a still later block of eight hours (beyond Hour 200) that had to be examined as part of the larger study mentioned above. This block contained one positive and seven negative memories of the father. By adding these results to those reported above, a  $2 \times 3$  contingency table was prepared,  $\chi^2(2) = 10.63$ ,  $p < .005$ . Because of the small expected frequencies in some cells, the two later blocks of hours were combined (Hours 61 and beyond),  $\chi^2(1) = 8.73$ ,  $p < .01$  (with a correction for continuity). These results document the shift in the patient's attitude toward his father as the therapy progressed. The shift was implied by the judges' ratings, so it adds further evidence for the validity of the ratings.

These results can also be taken as empirical evidence for an early defensive attitude which later gives way to a more negative attitude. This kind of shift has been the subject of a recent paper by Suppes and Warren (in press). These authors have proposed that a defense mechanism be formally viewed as a transformation imposed on a proposition. The original proposition represents the unconscious idea that eventually emerges, whereas the transformed proposition represents the original, conscious idea. The method of this paper readily allows an investigator to identify a mental content that has undergone such a shift and to systematically study the frequency and nature of such shifts.

### STUDY 4

#### CONDITIONS AFFECTING THE EMERGENCE OF WARD-OFF CONTENTS

The following study explored certain conditions that facilitate the emergence of W contents. It was prompted by an evolving theory (Sampson et al., 1972; Weiss, 1971) which will be described more fully in future publications, but which can be partly summarized as follows:

A patient in therapy wants to bring forth and master warded-off contents. To accomplish this goal, he first needs to assure himself that it is safe to do so. Safety, in part, depends on the therapist's reactions at critical times, so during therapy the patient continually tests the therapist and evaluates his reactions.

These tests and their consequences are significant to the therapeutic process. To pass a test that the patient poses, the therapist should remain neutral. For example, one way for the therapist to be neutral is to objectively investigate issues underlying a conflict without taking a stand that favors either side of the conflict. For example, the therapist should not condemn or criticize the patient, placate him, or act hurt, angry, or guilty. A therapist's response of the latter type would be nonneutral.

When the therapist is neutral, however, the patient feels safer, and when he feels sufficiently safe, he lifts his defenses and brings forth warded-off contents. Thus, as one major sequence in a therapy, a test is performed, the therapist passes the test by remaining neutral, and the patient feels safer; then the patient lifts his defenses and formerly warded-off contents emerge.<sup>2</sup>

Various kinds of tests help the patient assess the situation's safety. For example, one test occurs when the patient disagrees with the therapist, another when the patient is angry at the therapist, and a third when the patient makes a demand of the therapist. The therapist's failing or passing the test, of course, depends on how the patient idiosyncratically views the therapist's response. However, in many patient-therapist interactions, judges would readily agree about the neutrality or nonneutrality of the therapist's response to a disagreement, an expression of anger, or a demand. In the following study, 23 such interactions were identified and 3 judges assessed the degree of neutrality of the therapist's response. Tests that the therapist had passed were then compared with ones that he had failed.

When a therapist responds neutrally, and hence passes the test, two consequences should follow. First, the patient should tend to show

<sup>2</sup> This description only focuses on one strand of the therapeutic process. It does not consider other important ingredients of a therapy that facilitate the emergence of warded-off contents, such as the therapist's interpretation. Indeed, the ideas reported here imply that once-warded-off contents can sometimes emerge without any explicitly stated interpretations by the therapist. A fuller treatment of this issue, along with empirical data, will be the subject of future investigations.

immediate signs of relief; the DQ should generally drop when the test is passed. Second, feeling safer, the patient should be more apt to bring forth warded-off contents; therefore, the W hours should contain significantly more passed tests. Study 4 examines these two hypotheses with a method resembling that of the symptom-context method (Luborsky, 1967, 1970; Luborsky & Auerbach, 1969).

### Method

Two psychologists read the 12 W and N hours, looking for all episodes in which the patient (a) openly disagreed with the analyst, (b) expressed anger at the analyst, or (c) made a demand of the analyst. The psychologists agreed perfectly in identifying episodes: 14 episodes occurred in W hours and 9 occurred in N hours. (Every W hour had at least one of these episodes, as did four of the N hours.) Altogether, there were 8 cases of open disagreement, 5 cases of anger, and 10 cases of demands.<sup>3</sup>

First, the episodes (as defined in Study 2) were identified in which these incidents occurred; these episodes are called the "critical episodes." The analyst's response was also noted, as well as the episode that followed it (the "following episode"). The discomfort quotient was measured for each critical and each following episode; as noted above, the DQ had an interjudge reliability of .97.

In addition, each critical episode was typed on a page together with the analyst's response. Three clinical psychologists were asked to judge how neutral the analyst's response had been. If the analyst had said nothing, his response was considered neutral.

### Results and Discussion

The 23 critical episodes can be divided into two major groups. First consider the 10 cases in

<sup>3</sup> An example of an open disagreement is the following excerpt from Hour 44: "I don't see that. Whereas I admit distortions in the way I think about myself . . . I like to think that my judgments about my father are completely objective." An example of expressed anger is the following excerpt from Hour 68: "When you are deliberately quiet, I get really pissed at you. I don't know, I'm just real angry about it . . . I'm just really upset. I feel like, you know, I feel like smashing." An example of a demand is the following excerpt from Hour 44: "I really want to know something more about the things I was talking about, and I don't understand these things at all. I'd like you to, you know, point me in some directions."

which the analyst said nothing. Seven of these cases occurred in W hours, 3 occurred in N hours. The DQ was measured for each critical episode and for each following episode. In every case, the DQ of the following episode was lower. The mean DQ for the critical episodes was 1.50 and that for the following episodes was 1.26. The difference was significant,  $t(9) = 14.90$ ,  $p < .001$ . Thus, the DQ dropped when the analyst said nothing.

Part of this effect is due to the patient's generally greater discomfort during a critical episode. In seven cases, the patient's DQ was higher than the mean DQ for that hour. Regression toward the mean would therefore yield some average reduction in DQ. Two facts, however, show that the drop in DQ exceeded the amount expected by regression. First, episodes with a DQ below the hour's mean also showed the drop; in three cases, the DQ of the critical episode was below the hour's mean and each of those cases showed the drop as well. Second, the DQ of the following episode often fell below the hour's mean; that result occurred in six cases and would not be explained by regression toward the mean.

Now consider the 13 cases in which the therapist did make some comment. These comments varied in neutrality, and the three judges rank-ordered them for their neutrality. The judge was also given a checklist showing different ways in which a comment might depart from neutrality. For example, the analyst might have insulted the patient, disagreed with him, seemed anxious, or seemed defensive. The judges were asked to check all of the ways in which the comment departed from neutrality.

The judges agreed well in rank-ordering the fragments; the coefficient of concordance (Kendall, 1955) was .91. The ranks were averaged and the 13 fragments were divided into 2 subgroups: the 6 fragments that seemed more neutral (the judges agreed perfectly in their choice of the top 6) versus the 7 that seemed nonneutral. For each case, the DQ was noted for both the critical and the following episodes; the change score was also noted. For the more neutral fragments, the mean change was .36; the DQ dropped in five out of six cases. For the nonneutral fragments, the mean change was -.49 (an average increase); the DQ increased in six out of seven cases. Fisher's exact test was used to compare these frequencies for the neutral and nonneutral fragments. The difference was significant at  $p = .025$ .

Thus, cases that showed a drop in DQ were generally those in which the analyst had been

neutral. The data further showed that cases of this kind (reduced discomfort after a neutral intervention) occurred more often (four out of five times) in the W hours. On the other hand, cases that showed a rise in DQ were generally cases in which the analyst had been nonneutral. Cases of this kind (increased discomfort after a nonneutral intervention) occurred more often (five out of six times) in the N hours. The chance probability of this result is .067 by the Fisher exact test.

If the data of all 23 instances are combined, there were 16 cases in which the analyst was neutral and 7 cases in which he was nonneutral. Of the neutral category, 15 showed a drop in DQ after the intervention and 1 showed a rise. Of the nonneutral category, 1 showed a drop in DQ and 6 showed a rise. The 15 episodes showing decreased discomfort after a neutral intervention mainly occurred in W hours; 11 were in W hours and 4 were in N hours. The 6 cases showing increased discomfort after a nonneutral intervention mainly occurred in N hours; 5 occurred in N hours and 1 occurred in a W hour. This difference was significant by the Fisher exact test at  $p = .029$ .

These results thus suggest that the patient's discomfort drops when the therapist is neutral. A patient exhibits more discomfort when he is testing the therapist, but the therapist's neutrality seems to reduce the discomfort. Furthermore, W hours contained more sequences in which (a) the patient posed a test, (b) the therapist responded neutrally, and (c) the patient's DQ dropped.

It is also worth noting that the W content generally emerged after a test was passed. Of the 14 tests that occurred in the W hours, 12 preceded and 2 followed the emergence of the W content. Thus, the patient seems to have performed the test to determine whether the therapeutic situation was safe; when the test was passed, he then brought forth the W theme. On the other hand, N themes did not depend on the test. The N theme preceded or followed the test about equally often: of the nine tests that occurred in the N hours, four preceded and five followed the emergence of an N content. The chance probability of a pattern this extreme is .052 by the Fisher exact test.

Although a definitive statement of causality cannot be made, the results suggest that the therapist's neutrality enhances the patient's trust; the patient then relaxes his defenses and allows the warded-off content to emerge.

It is also interesting to note that tests were passed (and W themes emerged) more often in

the relatively early hours—Hours 44, 47, 53, 63, 71, and 76. N themes, on the other hand, seemed to emerge more often in the later hours—Hours 65, 68, 79, 81, 83, and 85 (when tests were often failed). In this particular case, then, the earlier hours seem to have been more productive (if productivity is defined in terms of the emergence of warded-off contents). Indeed, this method suggests a new way to characterize the productivity of a block of hours, namely, to correlate the mean ratings of each theme with the hour number. In an ideal case, the two should be positively correlated; as the hours progress, increasingly difficult themes (ones with higher ratings) should emerge. When the correlation is negative, the therapeutic work would seem to be slowing down.

In the present case, the  $r$  between the judges' ratings and the hour number for the 50 statements (omitting the two dummy items of earlier hours) was  $-.20$ . This value differed significantly from 0 and suggests that the therapy was not following an ideal course as it approached Hour 100: In the later hours, the patient posed tests that were not handled neutrally, so warded-off contents temporarily diminished. Other investigators have also developed measures of therapeutic productivity. Dahl (1972) has developed a method based on the factor analysis of emerging themes in a psychoanalysis. Spence (1969) used clinicians' ratings of productivity and examined correlated characteristics of the patient's speech. These methods differ in fundamental ways from that of the present paper, but their similarities and differences cannot be meaningfully evaluated until all of the methods have been applied to a variety of different cases.

#### GENERAL DISCUSSION

A mental content is said to be warded off when it arouses enough discomfort in the patient that he avoids it through some defensive activity. In the present studies, evidence existed to support all three parts of this definition, thus forming a very stringent set of criteria: First, the content was relatively unavailable to the patient early in the treatment and became more available in later hours, that is, contents were selected for Study 1 that had never occurred in the first 40 hours. Second, the content produced discomfort when it first emerged. Study 2 showed that as the patient emitted the W themes his speech showed increased signs of discomfort. Third, Study 3 provided objective evidence for a defensive process early in the treatment. One form of evidence that a person is defending against

some idea would be a pair of contradictory attitudes or beliefs in which one partly replaces the other, thereby exposing an ambivalence. The shift described in Study 3 provided evidence of this kind.

Although these three criteria are not necessarily essential conditions for calling a content warded off, together they provide a more compelling test of the validity of the judges' ratings than would one or two of the criteria alone. For suppose, on the one hand, that a content emerged for the first time and aroused anxiety yet showed no evidence of having triggered a defensive process. We could not be sure that the content had truly been warded off. It might have remained unavailable for nondynamic reasons: (a) Perhaps the patient had not gotten around to examining the idea earlier, (b) perhaps the idea had not seemed important earlier so the patient had not attended to it, or (c) perhaps other ideas had directed the patient's thoughts elsewhere. Contents of this kind, even ones that arouse anxiety, are not warded off. However, evidence of a defensive process removes this one important source of ambiguity.

On the other hand, suppose the second criterion (the presence of anxiety) were not met. Suppose a newly emerging idea replaced an earlier contradictory idea and neither idea aroused anxiety. Suppose, for example, that a patient who had idealized his father came to view his father in critical terms, but without anxiety. Then we could not be sure that dynamic factors had kept the new idea unavailable. The idea might have been warded off, but it is also possible that the patient had simply changed his mind about his father. That is, suppose the W contents of the present study had not aroused anxiety; then we could only say that the judge had anticipated a change in the patient's attitude toward his father, and this attitude change might be explained in other ways: For example, through some subtle means, the analyst may have persuaded the patient to feel hostile toward his father, and the patient, eager to please the analyst, complied. However, this kind of explanation would not account for the patient's anxiety because a patient who had simply changed his mind to please the analyst should not be made anxious by the new attitude. Thus, the presence of anxiety obviates such objections and removes a second kind of ambiguity.

It is possible, of course, that a warded-off content might emerge without discomfort. Perhaps a content that was once anxiety arousing became more tolerable through implicit therapeutic

mechanisms and then emerged without discomfort. For example, a content might be mastered outside of the formal therapeutic setting, or work on other contents might generalize to the as yet unavailable content. Thus, anxiety at the time the content emerges is probably not an essential condition for the content's having been warded off. (For that matter, it is possible that no single criterion is absolutely essential. The defense mechanism of isolation, for example, might allow a content to be present without anxiety early in the treatment.) However, when an investigator can meet all three criteria, important sources of ambiguity are removed and the case is strengthened for calling the content warded off.

Furthermore, the discomfort produced by the W contents in Study 2 was a very impressive testimony to the judges' skill. These judges, with only the limited, secondhand information of the process notes, were able to detect contents which indeed were found to make the patient anxious. What mechanism allows a judge to anticipate that the W themes would make the patient anxious? According to the data of Study 1, the judges relied heavily on their case formulation. A case formulation seems to be a prerequisite for successful clinician prediction. Among other things, it characterizes salient conflicts that produce consistent cognitive and behavioral styles. That is, the clinician looks for patterns that consistently emerge in different situations in the person's life (including the kinds of interaction with the therapist described in Study 4).

In a recent review of the literature, Bem and Allen (1974) have stressed the importance of cross-situational trait consistency as a measurable individual difference that significantly enhances the prediction of behavior. In their study, ratings of a trait's consistency were compiled along with ratings of the trait itself. Bem and Allen showed that these two properties need not be correlated; the variability of conscientiousness across situations, for example, is not necessarily related to the person's mean position along that dimension. Their study showed a substantial increase in the predictability of the subject's behavior when consistency was included as a predictor.

A case formulation likewise takes account of a trait's consistency. When a clinician formulates a case, he does not simply cite characteristic traits; rather he seeks traits with observed cross-situational consistency. In the light of each session's additional data, the clinician continually revises early hypotheses to incorporate the

most consistent patterns that regularly emerge. The patient of the present case, for example, initially showed the same idealized attitude toward his father, his therapist, and other authority figures. Using this consistency as one predictor, the clinician (or judge) could then make a successful inference.

To summarize, the present studies provide a method for reliably and validly identifying warded-off contents. Using this method, we can examine cognitive and emotional changes that occur within a patient during therapy as well as the process by which judges draw a clinical inference. The method also allows us to pinpoint consequences of the patient-therapist interaction and thus follow in detail the fine grain of the therapeutic process.

#### REFERENCES

- Bem, D. J., & Allen, A. On predicting some of the people some of the time: The search for cross-situational consistencies in behavior. *Psychological Review*, 1974, *81*, 506-520.
- Dahl, H. A quantitative study of a psychoanalysis. In R. R. Holt & E. Peterfreund (Eds.), *Psychoanalysis and contemporary science* (Vol. 1). New York: Macmillan, 1972.
- Dibner, A. S. Cue counting: A measure of anxiety in interviews. *Journal of Consulting Psychology*, 1956, *20*, 475-478.
- Fiske, D. W., Hunt, H. F., Luborsky, L., Orne, M. T., Parloff, M., Reiser, M. F., & Tuma, A. H. Planning of research on effectiveness of psychotherapy. *Archives of General Psychiatry*, 1970, *22*, 22-32.
- Freud, S. On psychotherapy. In P. Reiff (Ed.), *Therapy and technique: The collected papers of Sigmund Freud*. New York: Collier Books, 1963.
- Garduk, E., & Haggard, E. Immediate effects on patients of psychoanalytic interpretations. *Psychological Issues*, 1972, *7*, Whole Issue No. 28.
- Gendlin, E. T. The social significance of the research. In C. R. Rogers, E. T. Gendlin, D. J. Kiesler, & C. B. Traux (Eds.), *The therapeutic relationship and its impact: A study of psychotherapy with schizophrenics*. Madison: University of Wisconsin Press, 1966.
- Kasl, S. V., & Mahl, G. F. Experimentally induced anxiety and speech disturbances. *American Psychologist*, 1958, *13*, 349.
- Kasl, S. V., & Mahl, G. F. Disturbance and hesitation in speech. *Journal of Personality and Social Psychology*, 1965, *1*, 425-435.
- Kendall, M. G. *Rank correlation methods* (2nd ed.). London: Griffin, 1955.
- Kiesler, D. J. Some myths of psychotherapy research and the search for a paradigm. *Psychological Bulletin*, 1966, *65*, 110-136.
- Luborsky, L. Momentary forgetting during psychotherapy and psychoanalysis: A theory and re-

- search method: In R. R. Holt (Ed.), *Essays in honor of David Rapaport* (Ch. 4). New York: University Press, Inc., 1967.
- Luborsky, L. New directions in research on neurotic and psychosomatic symptoms. *American Scientist*, 1970, 58, 661-668.
- Luborsky, L., & Auerbach, A. H. The symptom-context method: Quantitative studies of symptom formation in psychotherapy. *Journal of the American Psychoanalytic Association*, 1969, 17, 68-99.
- Mahl, G. F. Disturbances and silences in the patient's speech in psychotherapy. *Journal of Abnormal and Social Psychology*, 1956, 53, 1-15.
- Mahl, G. F. Exploring emotional states by content analysis. In I. de S. Pool (Ed.), *Trends in content analysis*. Urbana: University of Illinois Press, 1959.
- Malan, D. H. The outcome problem in psychotherapy research. *Archives of General Psychiatry*, 1973, 29, 719-729.
- Roback, H. B. Insight: A bridging of the theoretical and research literatures. *The Canadian Psychologist*, 1974, 15, 61-88.
- Sampson, H., Weiss, J., Mlodnosky, L., & Hause, E. Defense analysis and the emergence of warded off mental contents. *Archives of General Psychiatry*, 1972, 26, 524-532.
- Spence, D. P. Computer measurement of process and content in psychoanalysis. *Transactions of the New York Academy of Sciences*, 1969, 31, 828-841.
- Suppes, P., & Warren, H. On the generation and classification of defense mechanisms. *International Journal of Psychoanalysis*, in press.
- Weiss, J. The emergence of new themes: A contribution to the psychoanalytic theory of therapy. *International Journal of Psychoanalysis*, 1971, 52, 459-467.

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