Metaphors at work

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"Ordinary words convey only what we know already;
it is from metaphor that we can best get hold
of something fresh." (Aristotle Rhetoric)

We apprehend the world through our senses, but it is through metaphor that we comprehend it. Until recently, most literary critics and philosophers have seen metaphor as rhetorical flourish or disguise. Despite the fact that metapsychological concepts can be shown to be metaphorical (Casonato, 1994), psychoanalytic theory relegates metaphor to the slough of primary process and identifies it with either regression or defense. Currently, however, philosophers, linguists, cognitive scientists, and some psychologists are reconsidering the role of metaphor as central to the way man conceptualizes the universe. The notion of metaphor as a cognitive structure is at the core of cognitive linguistics, and so it is worthwhile for psychologists look once again at the role of metaphor in our theory and clinical practice.

Furthermore, the last twenty years have brought enormous gains in psychotherapy research made possible by using technology to concentrate on what actually goes on between therapist and patient within the psychotherapy process. Using transcripts of audio tapes, it is possible to zoom in on microevents occurring throughout each hour to track precisely the therapist's actions and interpretations, and the patient's reactions to these events that often slip by in the course of ordinary conversation, even in the very peculiar, one-sided conversation of the psychotherapy session. Just as psychoanalysis, itself, offers a methodology for looking beneath the surface of ordinary speech to expose often unexpected cause and effect relationships, so transcripts of recordings of the psychotherapy dialogue allow the researcher to examine the processes of interpretation and change that occur throughout the hour. This technique enables researchers to judge the efficacy of various kinds of actions and interpretations, and to test hypotheses derived from differing theories against one another.

Many theories describe psychotherapy as a "talking cure," so it is assumed that the immediate evidence of change or effects researchers seek is embedded in the patient's speech. Because psychotherapy promises a process for achieving new understanding and change, and, because metaphor is the form language and thought take in comprehending something new, this study looks at the patient's use of metaphor as an indication of change. Specifically, it examines the effect of interpretations on the patient's use of metaphor.

Though currently in the limelight of debate, metaphor has always held a special position in theories of thought and language. By understanding one thing in terms of another, metaphor looks at the unknown through the lens of the known; it allows our understanding to leap from the old to the new, and from the near to the far. Its form is a distillate of creative striving of the mind stretching to encompass something new or strange by seeing it in terms that are familiar or more easily grasped.

So it is proposed that at those very moments when therapy is working best, and patients are grappling with new understanding, patients will use more metaphors. Psychotherapy is, after all, a mutual endeavor by which patient and therapist attempt to wrest a new reality out of old problems. Those who write about metaphor tell us that new metaphors are capable of creating new understandings and, therefore, new realities (Lakoff, Johnson, 1980). Thus, it should follow that the patient's use of metaphor will be a sensitive measure of his or her response to interpretation in the therapeutic process. Tracking metaphor allows the researcher to capture that moment of change in which the patient reaches out to grasp at a new idea before it is even understood.

This research builds on the work carried on by Joseph Weiss, Harold Sampson, and the San Francisco Psychotherapy Research Group (Weiss, Sampson, 1986), who have empirically tested many of the major hypotheses about mental functioning, psychopathology, and psychotherapy using measures and transcripts

taken from differing theoretical perspectives and subjecting their theories to quantitative analysis.

In a series of interrelated studies following the single case repeated-measures design, the SFPRG has been gathering a growing body of evidence in support of what is most effective in psychotherapy. Their research demonstrated that independent judges could identify what the patient was actually working on achieving in therapy (patient's plan), and then could look at what kinds of interpretations (pro-plan interpretations) most effectively facilitated his attaining his goals in therapy (Caston, 1986; Curtis, Silberschatz, Sampson, Weiss, Rosenberg, 1988; Rosenberg, Silberschatz, Curtis, Sampson, Weiss, 1986).

However, there are few empirical studies directly investigating how metaphor functions in the therapeutic process. Most studies limit their examination to a single session (e.g., Barlow, H. R. Pollio, Fine, 1977; H. R. Pollio, Barlow, 1975) or look at a few sessions from a single case (H. R. Pollio, Barlow, Fine, J. R. Pollio, 1977).

These studies attempted to show a simple quantitative correlation between insight and figurative language using frequency counts of novel figurative language and four judges' clinical judgment of insight without any systematic prior definition of insight. This research grew out of the classical view of metaphor as a rhetorical flourish, and assumed a distinction between novel metaphors (noticeably original metaphors) and frozen (metaphors which are in such common use barely recognized as metaphors). Since this assumption, however, has come under serious question (Amira, 1982, Pollio et al., 1977, Shell, 1986; McMullin, 1989) and is inconsistent with Lakoff's views of metaphor (Lakoff, Johnson, 1980, 1996) which sees metaphor as a cognitive structure that is central to our ability to reason about the world, the current study does not distinguish between frozen and novel metaphor.

METHODS

This study builds on earlier research by Weiss, Sampson, and the San Francisco Psychotherapy Research Group that demonstrated reliable techniques for constructing plan formulations for three patients in 16 session individual psychotherapy (Curtis et al., 1988; Rosenberg et al., 1986) which then allowed researchers to show the correlations between therapist interpretations that were consistent with helping patients achieve the goals identified in these plan formulations (hereafter referred to as *pro-plan* interpretations) and the immediate effect the therapist's interpretations had on the patient's insight (Fretter, 1984; Broitman, 1985), and their ability to bring forth repressed material in the therapy session, which could

ultimately be compared with the therapeutic outcome. This current study took the same three cases with their previously identified case formulations, interpretations, process material, and outcome correlations to examine the effect of different types of interpretations on the patients'use of metaphor.

SUBJECTS

Patients volunteered for treatment with the project. Their acceptance depended upon their being screened in an intake interview by an independent clinical evaluator and their completing a pre-therapy evaluation questionnaire. Acceptance criteria were broad: a history of positive interpersonal relationships; no signs of psychosis, organic brain syndrome, or mental retardation; no signs of ongoing alcohol or drug abuse; and no evidence of acute suicidal or homicidal potential. The patients selected for this study were the same cases previously selected for studies by Fretter, Broitman (1985), Douglass (1989), and Myers (in 1992). The patients in all three cases were diagnosed as having a dysthymic disorder (American Psychiatric Association, 1987), or chronic mild to moderate depression. There was some variability in presenting problems, socioeconomic status, and cultural background.

A *Patient Plan Formulation* was developed and reliably rated for each case. Outcome data were analyzed from a standardized battery of psychotherapy outcome measures. (The battery of outcome measures comprised: a) Target Complaints (Battle et al., 1966), b) Symptom Check List 90R (SCL 90R) (Derogatis, Lipman, Rickels, Uhlenhuth, Cove, 1974), c) Global Assessment Scale (Endicott, Fleiss, Cohen, 1976), d) Brief Psychiatric Rating Scale (BPRS) (Overall, Gorham, 1962), and e) Overall Change Rating.) An overall composite outcome score was calculated that combined all the individual outcome measures for each case, and residualized gain scores, that is, scores weighted to show variance in the post-score not predicted by the pre-score (Mintz, Luborsky, Crits-Christoph, 1979) were used as a control for pre-therapy levels of functioning. The cases represent the full range of outcomes: Case One (Linda) had an excellent outcome; Case Two (Gary) had a moderately good outcome; Case Three (Myra) had a poor outcome.

THERAPISTS

Patients were randomly assigned to therapists with no attempt to match patients and therapists. The therapists participating in the project were psychologists and psychiatrists with a psychodynamic orientation and with at least three years of clinical experience. They had all been trained in some form of brief psy-

chodynamic psychotherapy, The therapists were unaware of the specific research hypotheses and were not given any instructions regarding the treatment except to carry it out in their usual manner. The patient/therapist gender combinations were Case One, male/male; Case Two, female/male; and Case Three, female/male.

THE BRIEF PSYCHOTHERAPY RESEARCH PROJECT

Patients were assigned to therapists for 16 weekly psychotherapy sessions. Patient One terminated therapy after twelve sessions; the other two completed the sixteen sessions.

THE MEASUREMENT OF METAPHOR

The current study employed a modified version of the training manual developed by Barlow, Kerlin, and Pollio (1971) designed to teach judges to identify figurative language in contexts ranging from therapy interviews to children's compositions by way of political speeches. Their manual is composed of a number of different sections, each section presenting a general definition of one or another class of figurative language.

The original training manual was culled from various English and Rhetoric texts and describes fourteen types of figurative language. For the purpose of this study, the manual was revised to include only three types of figurative language, namely: metaphor, metonymy, and simile. The definitions of some of these were altered to reflect theoretical differences between Barlow and Lakoff's ideas of metaphor. The working definitions for metaphor was understanding and experiencing one kind of thing in terms of another. (Lakoff, Johnson, 1985).

Training consisted of two steps: *first*, nine different clinically experienced judges were trained to recognize metaphor; and *second*, these judges completed the practice segments in Barlow's Training Manual. The judges were therapists practicing in the community or students in a psychology PhD program. The instructor used definitions and examples from Barlow's Training Manual as well as passages from Lakoff and Johnson (1985). Judges were instructed to follow Lakoff's definitions. Judges were asked to independently rate four prose passages provided in the manual. Of these four passages, two were literary selections, one was a speech, and one was a transcript of a psychotherapy interview.

After each of these selections was rated independently, the nine judges were asked to talk about their ratings and to discuss differences. Raters were trained to recognize metaphor. Even such a familiar figure as "falling in love" was identified as a metaphor by jud-

ges after training. This study assumes that metaphor is powerful especially when it is so automatic as to be nearly unconscious (Lakoff, Turner, 1989).

Once they completed their training, and once all the judges agreed on their rating of these passages over 60% of the time, they were given transcribed, randomly arranged, pre – and post – interpretation segments of patient speech and asked to judge these segments independently of each other. To correct for fatigue, each judge was given the transcript shuffled in different order. Rater's judgments were tallied, and each metaphor was coded and compared to check for reliability.

All metaphors chosen were included in the data. Previous studies used a rating schema that included judges discussing their choices after the fact, and by this means they achieved highly satisfactory reliability. In Pollio and Barlow's study (1975) judges looking at patients'transcripts found that they did not agree on about 10% of the total items rated; but of the remaining 90% or so did agree about 85% of the time. The current study did not depend on any discussion between during rating or after-the-fact. Any discrepancies between judges were examined statistically with the understanding that some people may just be "better" metaphor hunters. In fact, one judge did have a harder time identifying metaphors, and he is included but noted as 'an oddball'.

HYPOTHESES

The following hypotheses are proposed based on the predictions of the theories and findings from previous research:

Hypothesis 1: It will be possible for judges to identify metaphor reliably according to a contemporary definition of metaphor. (Lakoff and Johnson, 1980).

Hypothesis 2: Because metaphor is a basic, creative structuring of thought especially used in comprehending new ideas or experiences, and because the use of metaphorical language reflects this, it is predicted that there will be an immediate positive shift in the patient's use of metaphor following pro-plan therapist interpretations.

RESULTS

This study hypothesized, first, that it would be possible for judges to identify metaphors reliably, and second, that patients would use more metaphors after pro-plan interpretations. The findings of this study supported the both hypotheses. It was possible for judges to identify metaphors reliably using a more contemporary definition consistent with Lakoff's. Furthermore, the findings also supported the second hy-

pothesis that there would be an immediate positive shift in the use of metaphor after pro-plan interpretation. While the number of metaphors increased after a pro-plan interpretation, its proportion to total word count remained the same.

Hypothesis 1: Identifying Metaphor

The correlations between pairs of judges ranged from. 46 to. 82 in the three cases. It turned out that one judge just wasn't very good at identifying figures of speech. Eliminating the one .46 "odd-ball" judge produced agreements of. 76 for Myra;. 67 for Linda; and. 71 for Gary in choosing total figures of speech. Earlier studies had employed post hoc discussions to raise the agreement rate above. 70.

Hypothesis 2: Frequency of Metaphor

The investigation looked at the relationship between the frequency of patients'use of metaphors and pro-plan interpretation. The total frequency of metaphorical expressions increased from pre-interpretation to post-interpretation in two out of the three cases (Gary and Myra went up; Linda went down).

Furthermore, there was a positive shift in the number of metaphors from the pre-interpretation segments to post-interpretation segments, and this shift was, indeed, related to the plan fullness or suitability of the interpretation. Myra, showed a highly significant (to the. 001 level of probability) relationship between pro-plan interpretation and use of metaphor. For each separate judge the total figurative language count increased following pro-plan interpretations. The average ratings for all the three judges show significant relationships between pro-plan interpretations and the total number of metaphors. Metaphor was related to the plan fullness (how pro-plan they were) of interpretation to a degree that approached significance for the three judges'average rating, and for one of the individual judges. In other words, in two out of three cases, the better the interpretation, the more metaphors.

Only Linda, whose metaphor level decreased after interpretations, did not show a significant relationship between pro-plan interpretation and use of metaphor.

In these three cases, however, the patient who had the highest overall word count was Myra, and she used the fewest metaphors per hundred words (about half as many as Gary or Linda). Gary had the lowest overall word count (he left therapy early), but his metaphor frequency was higher. Linda who had a lower word count than Myra used over twice as many metaphors per hundred words as she did. Metaphor rate varied between subjects, possibly as a personal characteristic.

In fact, what held constant, however, was the proportion of metaphor per hundred words for each person. Even though there was a shift toward a larger word count after pro-plan interpretation, the percentage of metaphor remained about the same for each patient. Metaphor rate per hundred words held steady throughout the therapy for each patient with Myra averaging around 3%; and Gary and Linda averaging about 6% metaphors per hundred words.

These percentages of metaphors in speech turned out to be consistent with how successful the therapy was. Therapy outcomes were analyzed from a standardized battery of psychotherapy outcome measures (Target, Complaints, Battle et al., 1966); Symptom Check List 90R (Derogatis, Lipman, Rickels, Uhlenhuth, Cove, 1974) Brief Psychiatric Rating Scale (Overall, Gorham, 1962); and Overall Change Rating). Myra who had the least successful outcome got the fewest helpful interpretations, and, though she talked more than the others, she used half as many metaphors per one hundred words than the other two. When she did get a pro-plan interpretation, though, her metaphor use increased significantly.

Linda and Gary had more successful therapies. Their therapists made more pro-plan interpretations, they had a better outcome, and Linda and Gary used twice as many metaphors per hundred words than Myra.

WORD COUNT

A surprising and serendipitous finding was that there was a significant positive shift in word count after pro-plan interpretation in one of the three cases and a positive shift approaching significance in another. This shift raises some interesting possibilities. It might be the case that patients think more after they get a helpful interpretation and thus use more metaphors, or useful interpretation might free the patient to make more associations in the material or come up with new memories. It might also be the case that after a misleading interpretation a patient would have trouble talking or pursuing a continuous train of thought. The patient would say a word or two in response to an unhelpful interpretation, but then trail off, or fall into silence, or skip from subject to subject. The therapist might be prone to offer another interpretation to fill the silence, and so the length of each segment might be determined to some degree by the effectiveness of the previous interpretation.

The increase of number of words may be a function of the patients'use of metaphor, and trying to tease the rate of metaphor apart from word count may be missing a complex relationship between metaphor and word count. A pro-plan interpretation may free the patient up or stimulate metaphor use, which results in more talking. If the segments were chosen solely by length (i.e., not influenced by content or context), it would be easier to make useful inferences about the apparent shift in word count or metaphor after pro-plan interpretation.

However, the powerful correlation between pro-plan interpretation and shift in word count requires some thought about the composition of the segments themselves.

SEGMENT SELECTION AND COMPOSITION

Other studies (Silberschatz et al, 1986; Broitman, 1985) using these same patient segments described the segments as representing approximately three or five minutes of patients'speech. (Some accommodation was made for completing a single idea, or some segments were cut short by other interpretations). These segments were chosen by looking at the typed transcript and estimating length: trying to pick uniform segments but ultimately choosing by the consistency of the content as well as by the length of the speech segment. Each segment was continued until the end of an idea, discontinued at a turning point from one thought to another, or ended because it was interrupted by a new interpretation. (Personal Communication, G. Silberschatz, 1993). There is quite a disparity between length of segments: in Gary's case, for instance, the lengths range from under 30 to nearly 300 words.

Because the length of each segment was influenced by both the content and context of each unit of patient's speech, the coherence of the patient's and therapist's thought influenced the length of the passage. These qualities of the patient's thought (perhaps related to metaphor use), and consistency of therapist's interpretation (interrupting one line of inquiry with another) may have affected the length of the passage [1].

The results of this study do not attest to a simple relationship between interpretation and metaphor: the raw results point to an increase in metaphors after interpretation, and may indicate that pro-plan interpretation has a significant effect on the use of metaphorical expressions and word count, and this is, in itself, a curious and useful finding.

IMPLICATIONS FOR FURTHER STUDY

Though this study found a remarkable consistency in the metaphor rate within each of the three cases, the sample was too small to make any over-arching predictions. It would be interesting to see if the rate of metaphor use remained constant in other cases, and if there were some way to use metaphor as a shift of thought measure.

We concur, however, with McMullen's suggestions (1985) that the most fruitful direction in studying metaphor is look beyond mere frequency rates to a more complex analysis of content. Her suggestions involve comparing the use of novel metaphor in successful and unsuccessful therapy to see if patients use metaphor differently in cases of varying outcome.

One idea for a study is to look at the use of metaphor throughout an entire therapy to see if there is any relation between metaphor and insight [2]. It would be interesting to analyze the use of metaphors throughout entire therapies to see if there is any change or development in the metaphors themselves. In perusing one case it seemed that there were clusters of metaphors which looked like variations on a theme. For instance: *I'M STUCK; MY HANDS ARE TIED; I HOLD MYSELF BACK; IF I LET MYSELF GO, I'LL BE A LOOSE CANNON; I'M OUT OF CONTROL.* In the example the metaphors are related but also show an evolution. They share properties of expressing the concept of constraint but as the metaphors progress they contain additional elements of agency and causality. Along this line, it would be important to see if the clusters of metaphor use are related to either the pathogenic beliefs or plan formulations that have been established by the SFPRG. Furthermore, it would be extremely valuable to try and integrate psychotherapy research techniques with the research methods from contemporary cognitive linguistics. Perhaps it would be possible to analyze the metaphors and their entailments in a manner useful to therapists.

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Notes

[1] Since this study examined frequency of metaphor, it was overtly sensitive to the issue of word count and so corrected for it. Because the length of each segment may be influenced by the content of the segment, other researchers may need to be aware that the segments themselves might impact on their measurement. In other studies, using qualitative rating scales, it might be harder to determine how much of the raters' judgment was influenced by the frequency of the phenomenon under examination which might be influenced by word count.

[2] Barlow et al. (1977) and Pollio et al. (1977) attempted this comparison with a rather loose definition of insight. Since then, there have been other studies of the progress of insight in therapy which employ more clearly defined parameters (Broitman, 1985; Edelstein, 1992).