

"Are All Psychotherapies Equivalent?"

William B. Stiles
David A. Shapiro
Robert Elliott

Miami University
University of Sheffield
University of Toledo

ABSTRACT: *Despite clear demonstrations by process researchers of systematic differences in therapists' techniques, most reviews of psychotherapy outcome research show little or no differential effectiveness of different psychotherapies. This contradiction presents a dilemma to researchers and practitioners. Numerous possible solutions have been suggested. Some of these challenge the apparent equivalence of outcome, arguing that differential results could be revealed by more sensitive reviewing procedures or by more differentiated outcome measures. Others challenge the seeming differences among treatments, arguing that, despite superficial technical diversity, all or most therapies share a common core of therapeutic processes. Still others suggest that the question of equivalence is unanswerable as it is usually posed but that differential effectiveness of specific techniques might be found at the level of brief events within therapy sessions. In spite of their diversity, many of the proposed solutions converge in calling for greater precision and specificity of theory and method in psychotherapy research.*

Despite the plethora of purportedly distinct psychotherapeutic treatments (Parloff, 1976, 1984), influential reviews of comparative outcome research (Luborsky, Singer, & Luborsky, 1975; Smith, Glass, & Miller, 1980) together with frequently cited studies (e.g., Sloane, Staples, Cristol, Yorkston, & Whipple, 1975) appear to support the conclusion that outcomes of diverse therapies are generally similar. Efforts to base public policy recommendations concerning mental health care service provisions on scientific evidence have yielded only "a consensus, of sorts, . . . on the question of the efficacy of psychotherapy as a generic treatment process . . . that psychotherapy is more effective than no treatment" (VandenBos & Pino, 1980, p. 36). No such consensus exists concerning the relative effectiveness of diverse therapies (e.g., DeLeon, VandenBos, & Cummings, 1983; Kiesler, 1985; Office of Technology Assessment, 1980). The verdict of the Dodo bird in *Alice's Adventures in Wonderland* (Carroll, 1865/1962), used as a subtitle by Luborsky et al. (1975), "Everybody has won and all must have prizes," captures this situation most vividly¹ and invites the question of our present title: "Are all psychotherapies equivalent?"

The statement that two (or more) therapies are equivalent could have three quite different meanings. The first is equivalence of outcome—that treatments yield outcomes that cannot be distinguished (the "Dodo bird verdict"). The second is equivalence of content—that the

behavior of participants in different therapies cannot be distinguished. The third is equivalence of mechanism—that different psychotherapies employ common principles of psychological change.

In this article, we first delineate the apparent paradox: the lack of differential effectiveness contrasted with evident technical diversity, that is, outcome equivalence contrasted with content nonequivalence. We then consider the resolutions of the paradox that have been put forward, along with the arguments and evidence that have been adduced in their support. We believe that considering alongside one another the traditionally separated research domains of therapy process and outcome brings into clearer focus the current strategic issues for psychotherapy research.

The Paradox: No Differential Effectiveness Despite Technical Diversity

Comparative Outcome Studies

Most past reviews using traditional narrative methods of summarizing comparative outcome studies have, like Luborsky et al., (1975), returned the Dodo bird verdict:

This article was written while William B. Stiles and Robert Elliott were visiting researchers at the Medical Research Council/Economic and Social Research Council (MRC/ESRC) Social and Applied Psychology Unit, University of Sheffield.

Correspondence concerning this article should be addressed to William B. Stiles, Department of Psychology, Miami University, Oxford, OH 45056, USA, to David A. Shapiro, MRC/ESRC Social and Applied Psychology Unit, Department of Psychology, University of Sheffield, Sheffield S10 2TN, United Kingdom, or to Robert Elliott, Department of Psychology, University of Toledo, Toledo, OH 43606, USA.

¹For those who consider an intervention's context to be an important determinant of meaning, we recapitulate the events leading to the Dodo's verdict. Alice and a motley collection of creatures had been soaked in water. After a reading from Medieval English history had proved insufficiently dry, the Dodo moved "for the adoption of more energetic remedies," specifically a Caucus-race.

First, it marked out a race-course, in a sort of circle, ("the exact shape doesn't matter," it said) and then all the party were placed along the course, here and there. There was no "One, two, three and away," but they began running when they liked, and left off when they liked so that it was not easy to know when the race was over. However, when they had been running half an hour or so, and were quite dry again, the Dodo suddenly called out "The race is over!" and they all crowded round it, panting and asking, "But who has won?" (Carroll, 1865/1962, p. 45)

We leave it for readers to judge whether this is an apt metaphor for comparative psychotherapy research.

Psychotherapy is effective, but no substantial *differential* effectiveness has been demonstrated (Bergin & Lambert, 1978; Bergin & Suinn, 1975; Beutler, 1979; Goldstein & Stein, 1976; Meltzoff & Kornreich, 1970; Roback, 1971). Similarly, the monumental review by Smith and Glass (1977; Smith, Glass, & Miller, 1980) using the quantitative approach known as meta-analysis (Garfield, 1983; Glass, McGaw, & Smith, 1981; Michelson, 1985) yielded the conclusion that

Despite volumes devoted to the theoretical differences among different schools of psychotherapy, the results of research demonstrate negligible differences in the effects produced by different therapy types. (Smith & Glass, 1977, p. 760)

Some behaviorally oriented researchers (e.g., Kazdin & Wilson, 1978; Rachman & Wilson, 1980) appear to believe, contrary to the Dodo, that behavioral therapies have been shown in comparative studies to be differentially effective. The overwhelming majority of investigations, however, are laboratory analogues using brief treatments with student volunteers who present only minor difficulties (Shapiro & Shapiro, 1983). Generalization from such research to therapy as practiced is fraught with difficulties (Kazdin, 1978; Mathews, 1978). Furthermore, Klein, Zitrin, Woerner, and Ross (1983) reviewed 13 studies comparing systematic desensitization with other treatments for phobic patients. Of these studies, only Gelder, Marks, and Wolff (1967) and Gillan and Rachman (1974) showed desensitization to be superior to dynamic psychotherapy. Moreover, the very small difference reported by Gelder et al. (1967) was no longer significant at six-month follow-up, and Gillan and Rachman's (1974) data do not show clearly that a pseudotherapy condition was any less effective than the other therapies in reducing the main phobia.

On balance, studies of better than average quality using patient populations show little advantage of behavioral over nonbehavioral methods in the treatment of affective and anxiety disorders. Klein et al. (1983) found essentially no difference in effectiveness between systematic desensitization and supportive, dynamically oriented psychotherapy in a 26-week trial with phobic patients. Sloane et al. (1975) found that neurotic outpatients made similar gains with short-term, analytically oriented psychotherapy and behavior therapy, when each treatment was conducted by experienced practitioners. By contrast, McLean and Hackstian (1979) found greater improvements among depressive outpatients with behavior therapy than with dynamically oriented psychotherapy, although these authors' reliance on mailed questionnaire measures of outcome is unfortunate.

Thus, a substantial body of evidence and opinion points to the conclusion that the outcomes of different psychotherapies with clinical populations are equivalent.

Comparative Process Studies

In contrast to the apparent equivalence of outcomes is the technical diversity of the psychotherapies. Estimates of the number of different therapies being practiced run into the hundreds (Goldfried, 1980; Parloff, 1976). Al-

though relatively few have been subjected to detailed process or outcome analysis, documentation of theory and technique continues to grow (e.g., Abt & Stuart, 1982).

According to the theories, psychotherapies differ not only in therapists' mental operations but also in the therapists' verbal and nonverbal techniques. Different schools' technical prescriptions are often flatly contradictory. For example, psychoanalytic therapy prescribes appropriate interpretations, whereas client-centered therapy proscribes interpretations and prescribes empathic reflections. Some therapies counsel against "treatment by suggestion," whereas others suggest specific in-session exercises or out-of-session homework. Some therapies prohibit therapist self-disclosure, whereas others see therapist openness or genuineness as therapeutically central. Therapies also differ with respect to actively disputing client assumptions, touching the client, and involving members of the client's family. Importantly, these technical prescriptions follow systematically from each theory's view of human nature and personality change, and they are generally to be applied across large classes of clients.

Of course, therapists' training, stated allegiance, or characterization of their theory may not be a reliable guide to what actually happens in the therapy they do (Buckley, Karasu, Charles, & Stein, 1979). Even though theories emphasize different features, the distributions of process variables may overlap so much as to be practically equivalent. Such a position has been widely held; for example, London (1964) asserted, "It has long since been shown that the operations of trained therapists of different insight schools are relatively hard to tell apart" (p. 47).

However, this content equivalence position has been shown repeatedly to be false, even for "insight" schools (Brunink & Schroeder, 1979; DeRubeis, Hollon, Evans, & Bemis, 1982; Gomes-Schwartz, 1978; Hill, Thames, & Rardin, 1979; Luborsky, Woody, McLellan, O'Brien, & Rosenzweig, 1982; Stiles, 1979; Strupp, 1955, 1957). There really are different ingredients in the different psychotherapies, although whether these are active ingredients or flavors and fillers remains to be established. The content differences are so large and systematically related to theory that it seems unreasonable to attribute any common success to overlap in therapists' verbal techniques. For example, in one study of psychotherapy sessions (Stiles, 1979), the verbal response modes used by prominent client-centered, gestalt, and psychoanalytic therapists conformed to sharply divergent theoretical prescriptions and proscriptions for 80% to 90% of their utterances. Client-centered therapists used nondirective modes (reflection, acknowledgment); gestalt therapists used directive modes (advisement, question, disclosure); and psychoanalytic therapists used attentive modes (interpretation, question, acknowledgment). Comparisons of therapists trained according to treatment manuals have also shown sharp differences, in line with the manuals' specifications (DeRubeis et al., 1982; Luborsky et al., 1982). Even therapists who merely assert their allegiance to alternative schools have shown appropriate, systematic differences (Brunink & Schroeder, 1979; Strupp, 1955).

Unfortunately, the technical differences have not been directly associated with the lack of differential effectiveness discussed above. Very few comparative outcome studies have reported any process measures for the therapies whose outcomes were compared, and none has assessed process comprehensively. For example, the well-known comparison of "psychotherapy versus behavior therapy" by Sloane et al. (1975) coded less than 3% of the verbal process. Furthermore the many therapists who identify themselves as "eclectic" (Garfield & Kurtz, 1976) might be using similar distributions of techniques, so that small, local samples might show little diversity. Nevertheless, the demonstration that the diverse theories are at least sometimes put into practice must be regarded as convincing. It seems implausible that the obtained lack of differential effectiveness could be attributed to a lack of real technical diversity.

The paradoxical findings of outcome equivalence and content nonequivalence present a serious dilemma because they seem to imply that no matter what a therapist does, the end result is the same. This conclusion is unpalatable theoretically and personally to therapists who have spent many years honing specialized skills. As Rachman and Wilson (1980) put it:

If the indiscriminate distribution of prizes argument carried true conviction, . . . we end up with the same advice for everyone—"Regardless of the nature of your problem seek any form of psychotherapy." This is absurd. We doubt whether even the strongest advocates of the Dodo bird argument dispense this advice. If they begin to do so, they (and the profession as a whole) will quickly earn the deserved contempt of their prospective clients. (p. 257)

Thus, there has been considerable motivation to resolve the paradox rather than to accept the conclusion that all psychotherapies are equivalent.

Possible Resolutions of the Paradox

The numerous proposed resolutions may be grouped according to which finding they seek to challenge or deny. Some argue, mainly on methodological grounds, that therapies may after all differ in outcome. Others argue that despite superficial diversity of content, the core processes or mechanisms are the same across therapies. Still others seek to encompass both findings within a higher order theory or to challenge the assumptions underlying the equivalence question. We will consider representatives from each group.

Sensitivity of Reviewing Procedures: Meta-Analysis

Perhaps the most direct challenge to the assertion of equivalent outcomes is to dispute the accuracy or sensitivity of the procedures used to summarize evidence from many studies. In recent years, debate has focused on the use of meta-analysis, a quantitative approach using the principles and methods of sampling, measurement, and statistics to review large tracts of empirical literature. The strengths and limitations of this approach have been extensively debated elsewhere (e.g., Garfield, 1983). Critiques by Eysenck (1978), Rachman and Wilson (1980),

and Wilson and Rachman (1983) have focused on the aggregation of heterogeneous data from problematically selected studies of varying quality.

However, meta-analysis yields a more sensitive comparison between treatments (in terms of the effect size, in standard deviation units) than the crude "box score" tally of significant versus nonsignificant results in conventional reviews. Its potential for challenging the Dodo verdict may have been underestimated. Shapiro (1985) reviewed three independent meta-analytic comparisons of the dynamic-humanistic and behavioral-cognitive classes of treatment (Nicholson & Berman, 1983; Shapiro & Shapiro, 1982; Smith et al., 1980). Contrary to Smith et al.'s (1980) conclusions, each yielded an overall mean effect size for behavioral and cognitive therapies between 0.39 and 0.68 standard deviations larger than that for dynamic and humanistic therapies. Furthermore, the subsets of each of these three meta-analyses that were obtained from direct within-study comparisons of the two treatment classes (and were thus free of confounding with between-study differences on nontreatment variables) all yielded mean effect sizes favoring behavioral and cognitive therapies by between 0.44 and 0.53 standard deviation units.

Turning to more specific meta-analytic comparisons between treatments, Shapiro and Shapiro (1982) found an advantage of 0.53 standard deviation units for cognitive-behavioral therapy over systematic desensitization. Dush, Hirt, and Schroeder (1983), however, found that self-statement modification, a form of cognitive-behavioral therapy, was only slightly superior to other active treatments with which it was compared. Furthermore, Miller and Berman (1983) found a difference of only 0.22 standard deviation units between cognitive and behavioral therapies, and Berman, Miller, and Massman (1984) found no difference.

Any review is limited by the quality of the studies reviewed. A benefit of meta-analysis is that the effects of random errors, or of biases that vary from study to study, are averaged over many studies, yielding a best estimate of the finding of interest. However, systematic biases applying uniformly to the bulk of the data reviewed are more serious and may suggest alternative explanations. For example, Berman, Miller, and Massman (1984) found that the allegiance of the investigators (inferred from their published reports) almost invariably predicted which treatment approach yielded superior results in comparative studies. They attributed the difference between their findings and those of Shapiro and Shapiro (1982) to the procognitive allegiances of the investigators whose work was included in the latter meta-analysis. Similarly, Smith et al. (1980) found that the allegiance of the researcher was correlated with the outcome for each therapy.

This problem takes on additional significance in relation to the comparison between cognitive-behavioral and dynamic-humanistic therapy classes. Because there is very much less comparative research conducted by adherents of the latter therapies, their relatively inferior showing may well be due to a systematic bias resulting

from experimenter allegiance. Although such biases are not unique to meta-analysis and apply equally to all literature reviews, the use of meta-analysis does not magically overcome them.

Similarly, meta-analysis highlights the limitations of a predominantly analogue literature. Shapiro and Shapiro (1983) found that studies whose client populations had received a psychiatric diagnosis yielded smaller effect sizes, and that the largest effects were obtained for simple phobias and the smallest for anxiety and depression.

Used with care and with recognition of the complex judgments involved in its execution, meta-analysis addresses the outcome equivalence question with more precision than the narrative review. Its potential to yield sensitive tests of increasingly specific propositions concerning treatment outcomes has been obscured by its initial association with the Dodo verdict, but this potential should become progressively clearer as the quality of the relevant literature improves. To that end, we hope that authors and editors will take care to ensure that reports of outcome research present their data in sufficient detail to facilitate their incorporation within meta-analytic reviews.

Specificity of Effectiveness: The Matrix Paradigm

One solution that challenges the apparent equivalence of outcome became orthodox during the 1970s. In a seminal article, Kiesler (1966) argued that psychotherapy research was hampered by "uniformity myths"—implicit assumptions that therapies, clients, and methods were all interchangeable. Paul's (1967) formulation expressed the recasting that became orthodox: "The question towards which all outcome research should ultimately be directed is the following: *What* treatment, by *whom*, is most effective for *this* individual with *that* specific problem, and under *which* set of circumstances" (p. 111; italics in original). These authors' formulations led to an explicit, matrix-like paradigm, according to which psychotherapy outcome research was required to address a cell or set of cells within a multidimensional (e.g., treatment $\times$ therapist $\times$ client $\times$ problem $\times$ setting) matrix.

The matrix paradigm's response to the paradox is that research has not yet identified each therapy's narrow range of maximal effectiveness. The apparent homogeneity of effects merely reflects averaging each therapy's results across heterogeneous clients, therapists, and settings. This view has had such continuing currency among reviewers (Bergin & Strupp, 1972; Fiske et al., 1970; Goldstein & Stein, 1976; Kiesler, 1971a; Meltzoff & Kornreich, 1970; Singer, 1980) that Paul's (1967) formulation came to be called the "litany" (Parloff, 1979, p. 305).

This solution is clinically appealing because it offers the promise of "prescriptions" (Goldstein & Stein, 1976) tailored to specific disorders. A major impact has been to focus attention on client variables, including demographic and personality characteristics, as well as on differential diagnosis (Garfield, 1978). For example, a number of studies have recently attempted to identify subtypes of depression that will predict response to different treat-

ments (Blashfield & Morey, 1979). Similarly, behavioral researchers (e.g., Kanfer, 1972) have emphasized the importance of assessing individual differences among clients before assigning them to interventions. A few well-known studies (e.g., DiLoreto, 1971; Gilbreath, 1967, 1968; see review by Shapiro, 1975) have found the comparative effectiveness of different therapies to vary with client personality variables. In accordance with the matrix paradigm, many comparative outcome researchers now select clients by using replicable diagnostic criteria, such as the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III; American Psychiatric Association, 1980), to reduce uncontrolled variation among clients assigned to a given treatment and thus to help detect treatment differences.

Goldstein and Stein's (1976) bold attempt to apply a simplified client $\times$ treatment matrix to their review of outcome studies yielded a remarkably sparse picture, and even after another decade, research has generated very few of the replicated "prescriptions" for optimal combinations sought by Goldstein and Stein (Lambert, Shapiro, & Bergin, in press). A possible exception to this is that some patients with severe obsessional disorders show striking change with behavioral therapy involving enforced nonperformance of rituals in the presence of evoking stimuli (Rachman & Hodgson, 1980). Meta-analytic searches for interactions between client and treatment variables, in the spirit of the matrix paradigm, have yielded little consistency. For example, in Shapiro's (1985) review of the diagnosis $\times$ treatment breakdowns in two meta-analyses, the Smith et al. (1980) finding that cognitive methods are particularly effective with phobics (the lone "matrix" effect) was not replicated by Shapiro and Shapiro (1982).

It has also become clear that there are serious strategic difficulties with the matrix paradigm. The number of cells created by the multidimensional matrix renders the scheme unrealistic as a basis for progress. In principle, to evaluate 10 types each of client, therapist, technique, and setting, a matrix of 10,000 cells must be used! In practice, Smith et al. (1980, pp. 95–98) noted that even a database of some 500 studies is insufficient to yield reliable estimates for all cells of an eight diagnoses by six treatments matrix. At the level of the single study, the National Institute of Mental Health's (NIMH; 1980) collaborative project on the psychotherapy of depression illustrates the enormous costs of comparing just 12 cells: four treatments (cognitive therapy, interpersonal therapy, and clinical management with imipramine pharmacotherapy or with placebo) $\times$ one category of client problem (unipolar depression) $\times$ three regional centers. Horowitz (1982) persuasively outlined the difficulties facing psychotherapy researchers trained to conduct large-scale matrix paradigm studies, who are confronted with the reality of the resources and time required to complete but a single study to that standard.

The matrix paradigm's feasibility could be greatly advanced by theories to guide the choice of cells to investigate. Beutler's (1979) review made a start in this di-

rection by examining treatment outcomes in relation to three client dimensions (simple vs. complex symptomatology, external vs. internal defenses, and psychological reactance). This effort's uneven results may reflect the many approximations that were needed to subsume studies that were not specifically designed to test Beutler's framework.

Disappointing results and strategic difficulties do not invalidate the matrix paradigm's logical appeal; they only expose the false hope of easy progress toward fitting treatments to clients. The matrix helps us organize our knowledge of the circumstances under which treatments may be differentially effective, and it encourages investigators to specify potentially relevant dimensions relating to clients, therapists, technique, and setting. Nevertheless, after 20 years' work in the paradigm, researchers have yet to deliver many clear prescriptions.

Specification of Treatments: Manualization and Dismantling

A third type of challenge to the finding of outcome equivalence argues that differences in techniques' effectiveness may have been obscured by shortcomings in the operationalization of treatment variables for research. Therapists in comparative studies may have had different, unclear, or mistaken ideas of what each treatment consisted of and so may have failed to deliver the distinct treatment methods consistently. Clearly, one cannot attribute the presence or absence of differences in effectiveness to the treatments themselves without evidence that they were delivered as intended and that they included the crucial components responsible for therapeutic benefit. Research approaches to treatment specification have prominently included (a) developing detailed treatment manuals and (b) experimental dismantling of treatments.

Manualization. Much attention has recently been given to specifying how a particular therapy is to be implemented. Three steps are involved: First, a "manual" is written specifying the techniques to be used; second, project therapists are trained to implement the techniques; and third, therapists' adherence to the manual is empirically assessed via process analysis of recorded sessions. Manuals have so far been used mainly to standardize treatments for comparative outcome research, but they are also being offered as practical guides for conducting therapy (Luborsky, 1984).

A major example of "manualized" therapies is provided by the NIMH collaborative study of depression (National Institute of Mental Health, 1980). The psychotherapies compared in this study are interpersonal therapy, following the manual of Klerman, Rounsaville, Chevron, Neu, and Weissman (1984), and cognitive-behavioral therapy, following the manual of Beck, Rush, Shaw, and Emery (1979). The interpersonal therapy manual provides specific steps to deal with four interpersonal problem areas. Pathological grief, for example, requires expression of feelings, clarification of problem and reactions, mourning the loss, developing new relationships, and handling therapy termination. In contrast,

the cognitive-behavioral manual offers a cognitive analysis of depression and prescribes techniques to change cognitive distortions and activities aimed at questioning basic assumptions. Homework assignments are integral to the therapy, and emphasis is placed upon an analysis of automatic self-defeating thoughts occurring outside of therapy. Studies of therapists trained according to these manuals have verified systematic differences in their in-session behaviors (DeRubeis et al., 1982; Evans et al., 1983). Similarly, Luborsky et al. (1982) found many predicted differences between cognitive-behavior therapy and supportive-expressive, psychoanalytically oriented therapy.

Such data as these indicate that manualization and associated training help to ensure that treatments are delivered as specified. However, even manualized treatments differ, in practice, along dimensions additional to those specified in the manual (DeRubeis et al., 1982; Luborsky et al., 1982). In terms of the pharmacological analogy, there has been no demonstration that the specified behaviors are the active ingredients or that the nonmanualized aspects of the interaction are inert. For example, Schaffer (1982) has pointed out that therapists' use of a procedure may vary enormously in skillfulness, which could include such hard-to-specify aspects of technique as choosing the appropriate depth of interpretation (Shapiro, Barkham, & Irving, 1984; Speisman, 1959) and the proper within-session context for interventions (Rice & Greenberg, 1984). Comparative studies in which the compared therapies are delivered with unequal skill cannot yield trustworthy results.

The arguments for specifying studied treatments via manualization are compelling. Nevertheless, the greater precision thereby achieved has not yet seriously challenged the Dodo verdict. Indeed, Luborsky (1984) reported that treatment "purity," that is, degree of adherence to the manual, predicted outcome in two treatments regardless of which model was adhered to. However, the results of major studies linking manualized behaviors to outcomes, notably the NIMH study of treatments for depression, are not available at this writing. Whatever their findings, the manualized specification of technique should substantially improve replicability and confidence in results.

Dismantling. Another research approach to treatment specification is the conceptually elegant "dismantling" methodology, developed to identify the active elements within complex treatment procedures (Kazdin, 1980). If the crucial components of a treatment can be isolated and delivered to specification, then far more precise comparisons across treatments are possible.

The dismantling strategy involves controlled comparisons of groups of participants undergoing the full treatment with other groups undergoing variant treatments, each of which lacks a specific element of the full treatment. Outcome differences between part and whole treatments imply that the part treatments lack crucial active elements, whereas part treatments that match the complete treatment for effectiveness are deemed to contain the active elements.

Evidence for specificity is to be found in the dismantling literature on insomnia treatments. Borkovec's (1982) review indicated that relaxation and biofeedback are consistently effective, even when compared with credible placebos or counterdemand instructions. Evidence from the most rigorous dismantling studies of relaxation suggests that muscle-tension release is important.

A rather different picture, however, emerges from the literature on behavioral treatment of headache. Blanchard and Andrasik's (1982) review shows that the effectiveness of biofeedback methods is unchanged by reversing the direction of physiological change induced by the procedure. For example, migraine patients undergoing what they believed to be biofeedback training to increase hand temperature (theoretically prescribed, in accordance with a vasoconstriction account of migraine) improved just as much if the feedback was in fact serving to reduce hand temperature. Similarly, Holroyd et al. (1984) found that tension headache sufferers improved as much with electromyographic (EMG) feedback increasing muscle activity as with feedback reducing it.

The results of recent dismantling studies of cognitive-behavioral approaches to depression have also tended to go against the specificity-of-effects position. Thus, Kornblith, Rehm, O'Hara, and Lamparski (1983) reported a dismantling study based on Rehm's (1977) self-control formulation of depression, whereby depressed patients are seen as manifesting maladaptive self-monitoring, self-evaluation, and self-reinforcement behavior. A full cognitive-behavioral treatment was compared with a didactic condition lacking the instigational push of homework assignments, a condition lacking only the self-reinforcement element, and an active control treatment—problem-oriented, psychodynamic group psychotherapy. All four treatments were equally effective. Similarly, Zeiss, Lewinsohn, and Minnoz (1979) compared interpersonal skills training, a program based on reinforcement theory, and a cognitive approach to the modification of depressive thoughts. All treatments were associated with reduction in depression, without the expected differential changes in the specific aspects of patients' problems targeted by the three treatments.

A variant of the dismantling methodology evaluates the improvement associated with adding further elements to a standard treatment. For example, studies by Kazdin (1979, 1980; Kazdin & Mascitelli, 1982) on covert modeling of social skills demonstrated enhancement of effects due to such ingredients as homework practice, the combination of covert and overt rehearsal within treatment sessions, and the elaboration of imagery during treatment.

Dismantling studies often investigate the mechanisms of change by combining process measures with assessments of outcome. Such analyses yield a stringent test of theory, and the results are often challenging. For example, Borkovec (1982) concluded that in-treatment decline in EMG activity is unrelated to sleep outcomes, contrary to the proposition that reduction of autonomic hyperactivity is the mechanism responsible for the effectiveness of muscle-tension release. Similarly, Blanchard

and Andrasik (1982) found no relation between the extent of physiological change achieved during biofeedback and reported headache reduction. Holroyd et al. (1984) found that, regardless of actual changes in EMG activity, tension headache sufferers who received bogus feedback indicating large EMG reductions showed substantially greater improvement than those who received feedback indicating smaller EMG reductions. Such findings encourage speculation that the effectiveness of these behavioral treatments is due to "nonspecifics," such as increasing confidence and self-efficacy (Bandura, 1977) following perceived acquisition of control within the treatment situation, rather than to the specific techniques.

Dismantling has logical parallels with the single-case methodology (Chassan, 1979; Hersen & Barlow, 1976; Kazdin, 1980; Sidman, 1960), in which carefully specified experimental interventions are introduced to identify the variables controlling problematic behaviors. Bergin and Strupp (1970) advocated the latter approach for identifying therapeutic change mechanisms. Although the dismantling and single-case strategies have been most commonly applied to behavioral interventions, both potentially have much wider applicability (cf. Truax & Carkhuff, 1965).

The dismantling methodology is in principle a powerful tool for isolating effective ingredients in psychotherapy. The Dodo-gratifying lack of specificity of some theoretically specified active components (e.g., hand-warming for migraine) illustrates the method's ability to dissect treatment programs. The overall mixed results, illustrated by our necessarily selective review, suggest that much more work will be needed to achieve a clear picture of how treatment components contribute to effectiveness, even in the relatively few, almost exclusively behavioral, procedures that have so far been subjected to dismantling. Extension of this method to dynamic, humanistic, and other therapies seems desirable.

Differentiation of Outcome Measures: Effects Versus Effectiveness

The apparent equivalence of outcomes could reflect a failure of comparative outcome studies to measure the particular changes that differentiate treatments. Behavioral researchers (e.g., Agras, Kazdin & Wilson, 1979; Rachman & Wilson, 1980) have argued that traditional assessment methods are too global, imprecise, and rooted in a "medical model" conceptualization of psychological problems. Citing Mischel's (1968, 1977) arguments for situational specificity, these authors have alleged that such imprecise measurement is bound to obscure differences among the effects of different therapies. For example, Rachman and Wilson (1980) saw therapist-completed ratings of "general improvement" as degraded and overly generalized representations of specific changes such as an agoraphobic's improved ability to travel on buses. To detect the specific effects of a technique aiming to increase that ability, a correspondingly specific measure of change is required. Although global improvement measures might show similar changes following both a specific be-

havioral treatment and a verbal therapy serving to improve the client's self-esteem and insight, the more specific measure should yield an advantage to the more targeted behavioral technique. Consistent with this suggestion, Shapiro and Shapiro's (1982) meta-analysis found that outcome measures specific to the goals of treatment yielded somewhat larger effects.

This call for specificity in outcome measurement underlies the expanding field of behavioral assessment (e.g., Haynes, 1978). Methods include behavioral observation, the structured behavioral interview, self-monitoring, questionnaires, and psychophysiological indices. With its emphasis on narrow specificity of effects, behavioral assessment is as much an approach to the conceptualization of therapeutic change as a new set of measures.

The striking lack of concordance among outcome measures (Bergin & Lambert, 1978; Lambert, Christensen, & DeJulio, 1983; Lambert et al., in press; Parloff, Waskow, & Wolfe, 1978) is more understandable if each technique produces specific effects rather than general improvement. A conclusion that is consistent with the behavioral assessment approach is that change is multidimensional and must be assessed from multiple vantage points (client, therapist, observer, significant other; Strupp & Hadley, 1977).

Similar arguments for differentiation of outcomes were advanced in the early days of psychotherapy research by psychoanalysts who felt that the subtleties of dynamic change could not be captured by symptom scores or personality inventories. Malan (1976) developed elaborate procedures for identifying individualized goals for psychodynamic change, which could then be used to establish criteria for evaluating each client's outcome. However, critical replications by Mintz (1981) and by DeWitt, Kaltreider, Weiss, and Horowitz (1983) have indicated that the dynamic formulations of different rating teams do not agree, except insofar as they reflect easily measured symptom levels.

Another outcome differentiation solution distinguishes psychotherapeutic effects from their value, arguing that different psychotherapies may have potent effects that are valued differently by different people (Stiles, 1983; Strupp & Hadley, 1977). If there is no consensus on an effect's value, then it is likely to contribute little to measures of a therapy's "effectiveness." If, for example, a therapy promotes free expression of emotion, and this outcome is seen as positive by some cultures, subcultures, or individuals but neutral or negative by others, then clients showing large increases in emotional expression will not necessarily be judged "highly improved." Ratings from multiple perspectives or ratings by sophisticated judges are likely to balance alternative value systems and move toward the center. Projecting multiple dimensions onto a single dimension of "improvement" or "change" by using averaged scales or effect sizes makes therapies comparable but at a cost of masking their diversity and potency of effect.

This line of argument suggests that many treatments may be appropriate for a particular problem but may

nevertheless have drastically different outcomes. If the choice of therapy turns on issues of value and preference, then professionals might more usefully inform potential clients about alternatives than prescribe regimens for them.

The idea that psychotherapy should produce consensually recognized "improvement" may rest on an inappropriate analogy with medicine (Stiles, 1983). The medical model blurs the distinction between treatment consequences and values, because medical treatment is generally tailored to the correction of some deviation—for example, killing invading microorganisms, repairing damaged organs, giving supplements for deficiencies, or otherwise restoring physiological normality, which is more or less the same for everybody and universally desired. By contrast, psychological normality is heterogeneous; normal behavior varies widely, especially when considered across roles and cultures. Most theories of personality and psychotherapy (cf. Hall & Lindzey, 1978) describe psychological health as involving increases in individual variation—self-actualization, differentiation, individuation, creativity, spontaneity, and freedom from aversive control, compulsion to repeat, or other internal constraint. If psychological health is pluralistic, then psychological treatments may appropriately be so too.

The combination of greater specification of treatment components, via manualization and dismantling strategies, with greater differentiation of outcome measurement, via behavioral assessment and other measurement of specific therapeutic effects, suggests an interesting path for future experimental research—that is, to isolate treatment components and assess their distinct effects, which may or may not be considered beneficial in a given case. The effects of a particular component might be quite circumscribed and might initially be studied in isolation when therapeutic benefit is not at issue.

General Therapist Factors as the Common Core

The preceding solutions argue that, for one reason or another, the Dodo was mistaken or misled. We turn now to solutions that accept the verdict that outcomes are equivalent and argue that (a) common features shared by all psychotherapies underlie or override differences in therapists' verbal techniques and (b) these common features are responsible for the general equivalence in effectiveness. That is, they argue for equivalence of mechanism despite superficial nonequivalence of content.

We first consider general therapist factors—broadly defined attitudes, qualities, or conditions provided by therapists in their relationships with clients, qualities that cut across different schools' variation in response modes, techniques, or specific verbal content. During the last two decades, this idea of a common core of therapeutic qualities has been a counterpoint to the matrix paradigm's search for specificity of effects. It received early impetus from Fiedler's (1950a, 1950b, 1951) finding that therapists and clients of different schools rated the ideal therapy similarly with respect to such global aspects as warmth and overall quality of the therapeutic relationship.

To illustrate: Frank (1973) analyzed psychotherapy in terms of a universal pattern of using social influence (persuasion) for healing. Across schools, and across many other types of encounters, "influencers" (such as therapists) all (a) "genuinely care about the sufferer's welfare," (b) "have a certain ascendancy or power," and (c) "mediate between the person being influenced and the larger society" (pp. 217–218). Schofield (1964) summarized psychotherapy as "the purchase of friendship." Goldfried (1980) gave two examples of "strategies that may very well be common to all theoretical orientations: (a) providing the patient/client with new, corrective experiences, and (b) offering the patient/client direct feedback" (p. 994).

Most of the proposed general therapist factors fall into two broad groups: (a) warm involvement with the client and (b) communication of a new perspective on the client's person and situation. Each of these has repeatedly emerged as important in literature reviews and factor analytic studies of therapy process (Baer, Dunbar, Hamilton, & Bentley, 1980; Frank, 1973; Goldfried & Padawer, 1982; Gomes-Schwartz, 1978; Mintz, Auerbach, Luborsky, & Johnson, 1973; Mintz, Luborsky, & Auerbach, 1971; Orlinsky & Howard, 1977, 1978).

Perhaps the best known example of warm involvement as a general therapist factor is the much-researched triad of "necessary and sufficient conditions" formulated by Rogers (1957): warmth (unconditional positive regard), empathy (accurate empathic understanding), and genuineness (openness). The "conditions" were enthusiastically embraced by researchers in the 1960s (e.g., Truax & Mitchell, 1971) and hailed as a general model of treatment (Truax & Carkhuff, 1967). However, careful reviews have returned a verdict of "not proven" (Bergin & Suinn, 1975; Chinsky & Rappaport, 1970; Gormally & Hill, 1974; Lambert, DeJulio & Stein, 1978; Mitchell, Bozarth, & Krauft, 1977; Parloff et al., 1978; Shapiro, 1976; but see Patterson, 1984). Much of the inconclusiveness can be traced to difficulties in specifying and measuring the conditions; the usual rating procedures were criticized as providing only global evaluations, which say little about the specifics of the therapeutic process (Chinsky & Rappaport, 1970; Rappaport & Chinsky, 1972). The thesis that general therapist factors are necessary must also contend with evidence that a therapist's presence is not required for successful outcome, as in peer self-help groups (Emrick, Lassen, & Edwards, 1977; Hurvitz, 1974), bibliotherapy, or automated treatments.

The new perspective factor was described by Frank (1973, 1982) as the process by which the therapist provides the client with a new "assumptive world." Therapists provide novel information about clients themselves, about their situations, or about how to view the world; this may be presented directly to clients as interpretations, advice, or information giving, or it may be communicated more subtly through modeling or selective reinforcement. New perspective may correspond to empirically identified process factors such as therapist interpretiveness/intensity (Mintz et al., 1971), therapist participation (Gomes-

Schwartz, 1978), involved, effective therapist (Orlinsky & Howard, 1977), and session depth (Stiles, 1980). Unfortunately, research linking this dimension to client benefit has returned mixed results, perhaps because therapist perspective giving tends to be ineffective or even toxic when administered at very high levels (Speisman, 1959) or to fragile or poorly motivated clients (Horowitz, Marmar, Weiss, DeWitt, & Rosenbaum, 1984).

The general therapist factors solution is central to the recent upsurge of interest in eclecticism in psychotherapy (e.g., Beutler, 1983; Garfield, 1980; Goldfried, 1982; Held, 1984). Each of these formulations seeks to distill the common ingredients of treatments and to synthesize them into a maximally effective approach that is unburdened by the theoretical baggage brought by each school. It is too soon to judge the results of this effort.

It remains plausible that in effective psychotherapy, therapists of different schools share such apparently desirable qualities as personal warmth, understanding, and the ability to guide clients to new perspectives. Nevertheless, the yield of studies attempting to associate these dimensions with therapeutic outcome has been disappointing. The difficulties of specifying and measuring such global, value-laden attributes contribute much to the weak showing.

Client Behavior or Attitudes as the Common Core

Client exploration. Another group of solutions suggest that, despite the diversity of therapists' behavior, there is a common process core in the performance of psychotherapy clients. The implication is that a major active ingredient in all psychotherapies is the client's involvement in therapy and the verbal exploration of his or her own internal frame of reference. Therapists' diverse techniques represent alternative approaches to facilitating this core process. This view is consistent with several theoretical approaches, for example, Jourard's (1968, 1971) work on self-disclosure, Gendlin's (1970, 1978; Gendlin & Tomlinson, 1967) work on "focusing" and "experiencing" (which extended Rogers's, 1958, "process conception"), and the psychoanalytic concept of self-exploration via free association (Greenson, 1967).

The client core-process solution has some circumstantial support. Clients use a consistent profile of speech acts, regardless of their therapist's verbal techniques or theoretical orientation (McDaniel, Stiles, & McGaughey, 1981; Stiles, 1984; Stiles & Sultan, 1979). By far the most common response mode used by clients is disclosure—grammatically first-person utterances that reveal subjective information. The profile sharply distinguishes the psychotherapy client role from other expository roles, (e.g., patients giving a medical history; Stiles, Putnam, & Jacob, 1982). Client disclosure shows strong positive correlations with other "good process" measures, such as the Experiencing Scale, a measure of the primary client process variable in client-centered theory, and the Patient Exploration and Therapist Exploration scales, which take a more psychodynamic perspective (Klein, Mathieu-Coughlan, & Kiesler, in press; McDaniel et al., 1981;

Stiles, McDaniel, & McGaughey, 1979). Factor analytic studies (Baer et al., 1980; Mintz et al., 1973; Orlinsky & Howard, 1977) also find a general client participation/resistance factor.

Considering the availability of reliable, convergent measures and the wide theoretical agreement that client disclosure, experiencing, or exploration should be beneficial, it has proved surprisingly difficult to demonstrate a convincing relationship between specific client behaviors and therapy outcome (Gendlin, Beebe, Cassens, Klein, & Oberlander, 1968; Kiesler, 1971b; Klein et al., in press; McDaniel et al., 1981; Strassberg, Anchor, Gabel, & Cohen, 1978; but see Luborsky, 1976). However, there is somewhat more consistent evidence that less differentiated measures, such as the overall level of patient participation (Gomes-Schwartz, 1978; O'Malley, Suh, & Strupp, 1983), patient positive contributions (Marziali, 1984a; Horowitz et al., 1984), or the total number of client utterances in therapy (McDaniel et al., 1981) predict therapeutic benefit. Although the client's verbal participation appears important, there remains ambiguity about which specific aspects of that role are crucial (Stiles, in press).

Client expectancies. Another class of client general factors is client expectancies, including initial expectations (Goldstein, 1962) and those developed in treatment. In the 1960s, clients' initial expectations of benefit in psychotherapy were seen as closely linked to the placebo effect (Frank, 1973; Goldstein, 1962; A. K. Shapiro, 1971; A. K. Shapiro & Morris, 1978). Research reviewed by Goldstein (1962) suggested that moderate client expectations for benefit were optimal, whereas unrealistically low and unrealistically high expectations were to be avoided. Expectancy effects entered outcome research design desiderata in the form of "attention-placebo" control groups (Paul, 1966; 1967; Kazdin, 1980). In Smith et al.'s (1980) meta-analysis of outcomes, placebo treatments were found to have an effect size of about 0.56, or about half the size of most "active" treatments. However, Wilkins (1984) has taken issue with the idea of placebo control groups, arguing that mobilization of positive expectations, or hope, is an active ingredient of psychotherapy (cf. Frank, 1983). Moreover, initial expectations can be bolstered by early outcomes; once a success of any sort has been achieved, clients in any therapy may be pulled along by their own expectations of future change.

A similar argument can be built on Bandura's (1977) concept of self-efficacy, the client's belief that he or she can successfully execute a specific behavior (e.g., approach a phobic object). Numerous studies (e.g., Bandura & Adams, 1977; Bandura, Adams, & Beyer, 1977; Bandura, Adams, Hardy, & Howells, 1980; Williams, Dooseman, & Kleifield, 1984) have shown that changes in phobic behavior correspond closely to changes in self-efficacy associated with diverse treatments. According to Bandura (1984), self-efficacy is not merely a cognitive estimate of future competence on the basis of past performance; self-perceptions of efficacy enhance performance rather than merely forecasting degree of success (Bandura & Cervone,

1983). It is thus possible that the varied techniques of psychotherapy are no more than diverse means to a common end, namely the enhancement of clients' self-efficacy beliefs. On the other hand, the conceptual and empirical status of self-efficacy theory has been challenged (e.g., Eastman & Marzillier, 1984), and the theory as presently formulated has a suspiciously "catch-all" quality when generalized beyond the experimental studies from which it is derived.

Therapeutic Alliance as the Common Core

A current line of work seeks to unify client and therapist general factors under the rubric of "therapeutic alliance" (Bordin, 1979; Luborsky, 1976, 1984; Marziali, 1984b). The therapeutic alliance is the emotional bond and mutual involvement between therapist and client. Proponents of this view suggest that competent therapists of all persuasions are able to establish a positive emotional bond and a sense of mutual collaboration with receptive clients, and that this relationship carries most of the therapeutic weight. According to this view, the specific tasks, techniques, and theories attached to alternative therapies are relatively unimportant except as vehicles for enacting the therapeutic alliance.

The concept of therapeutic alliance (also called "helping alliance" or "working alliance") derives from the psychoanalytic tradition, in which there is a longstanding controversy over its exact definition and clinical usefulness (e.g., Greenson, 1965, 1967; Weiner, 1975; Zetzel, 1958). In psychotherapy research, interest in the therapeutic alliance emerged out of a growing dissatisfaction during the 1970s with the "therapeutic conditions" concept (e.g., Lambert et al., 1978; Parloff et al., 1978). This application was initiated by Bordin (1979) and stimulated by Luborsky's (1976) exploratory study. In applying the concept to psychotherapy research, Bordin (1979) distinguished three aspects of the helping alliance: (a) the emotional bond between client and therapist, (b) the quality of client and therapist involvement in the tasks of therapy, and (c) the degree of concordance between client and therapist on the goals of treatment. A variety of measures of therapeutic alliance have been developed and are being applied in research (e.g., Hartley & Strupp, 1983; Luborsky, 1984; Marziali, Marmar, & Krupnick, 1981; Moras & Strupp, 1982). The results of this research (like those reviewed in the preceding section) suggest that the client's contribution to and perception of the therapeutic alliance, rather than the therapist's, best predicts successful outcome (Luborsky, Crits-Christoph, Alexander, Margolis, & Cohen, 1983; Horowitz et al., 1984; Marziali, 1984a).

The concept of the therapeutic alliance can help integrate information from several sources. In factor analytic studies, client and therapist participation measures often load on the same factor (Baer et al., 1980; Gomes-Schwartz, 1978; Mintz, Luborsky, & Auerbach, 1971), suggesting a pattern of mutual facilitation. The therapeutic alliance can subsume earlier research on links between client-perceived "therapeutic conditions" and outcome

(e.g., Barrett-Lennard, 1962; cf. review by Gurman, 1977): Client reports of therapist warmth, empathy, and genuineness can be construed as measuring therapeutic alliance. Retrospective accounts by former clients (Cross, Sheehan, & Khan, 1982; Feifel & Eells, 1963; Llewellyn & Hume, 1979) typically describe relationship qualities such as support and understanding as being the most helpful factors. The therapeutic relationship's importance is recognized even in cognitive and behavior therapies (cf. Beck et al., 1979; Goldfried & Davison, 1976; Wilson & Evans, 1977).

Despite current enthusiasm (Waskow, 1983), the concept of therapeutic alliance has several drawbacks. First, correlations with outcome may in fact reflect confounding with early outcome (Glass, 1984): Early success or partial symptom relief is likely to strengthen the therapeutic alliance so that the relationship to outcome may be bidirectional. Second, the alliance construct is really only a conceptual umbrella for uniting a number of client and therapist contributions; the exact operation of these constituent factors remains to be clarified. Although attempting to be inclusive, the alliance concept is vulnerable to criticism also lodged against the general therapist factors: It locates the common core at too high a level of abstraction.

Encompassing the Paradox

Some commenters have proposed to accept both the lack of a common core in therapy process and the similar outcomes of diverse techniques and have sought to encompass all successful therapies within a common theoretical framework. For instance, Ryle (1978, 1982, 1984) suggested locating the different schools of psychotherapy within a more general cognitive theory, of which his "procedural sequence model" is an example. According to this model, human behavior may be seen in terms of hierarchically organized ends-means structures. Because of the hierarchical organization, modifications at one level induce modifications at other levels; moreover, because each procedure is continually revised by prediction and feedback, modifications are integrated adaptively. Consequently, "any therapy-induced focal change will be integrated into the patient's system, even if a therapist is operating on a partial or unintegrated model" (Ryle, 1984, p. 263). Different treatments focus on different subroutines or different levels, but their ultimate effects are similar because the client's internal hierarchical organization automatically makes suitable adjustments throughout the system.

Other proponents of encompassing the paradox have also advocated stage models that incorporate a variety of change mechanisms coming into play at different times. Thus, Urban and Ford (1971) characterized all therapies as forms of problem solving, following five stages (identification of problem, analysis of problem, selection of goals, implementation of problem solution, and subsequent evaluation). Prochaska and associates (McConaughy, Prochaska, & Velicer, 1983; Prochaska, 1984; Prochaska & DiClemente, 1982) described five stages of

change (precontemplation, contemplation, decision making, action, and maintenance) that interact with basic change mechanisms such as catharsis and reinforcement.

Whereas Ryle, Urban and Ford, and Prochaska used higher order theories, other writers have used existing theories of personality and psychotherapy to encompass diverse treatments. For example, Leitner (1982) used George Kelly's theory of personal constructs, as elaborated by Landfield (1980), to unify eight major treatments. Efforts to reconcile such divergent theoretical approaches as psychoanalysis and behavior therapy (e.g., Dollard & Miller, 1950; Wachtel, 1977) may similarly be seen as steps in this direction.

Of course, an implication of global encompassing resolutions is that therapists who subscribe to particular theories are operating with only fragmentary understanding and imposing unnecessary restrictions on their practice. This represents a rather condescending view of theories of personality and psychotherapy that have been the life work of some of the most respected thinkers in the field. It would be interesting to hear rebuttals of such integrations from advocates of treatments thus subsumed (e.g., Yates, 1983).

Questioning the Equivalence Question: The Events Paradigm

The last solution to be discussed takes issue with the practice of comparing the contents and outcomes of entire therapies. According to this approach, a "treatment" is far too unwieldy to make comparison of treatments a productive research strategy. Instead, this strategy uses "events"—brief exchanges between client and therapist within therapy sessions—as units of analysis. Advocates argue that previous findings of outcome equivalence reflect averaging over large, heterogeneous collections of events within each treatment. By contrast, differential effectiveness of specific techniques may be found for specific contexts within therapy sessions, even though all therapies may draw on a common pool of change mechanisms (Elliott, James, Reimschuessel, Cislo, & Sack, 1985; Goldfried, 1980). Thus, for example, rather than asking, "Is Gestalt therapy better than client-centered therapy?" this approach asks, "Is the Gestalt two-chairs technique better than reflective listening for resolving decisional conflicts?" (Greenberg & Dompierre, 1981).

This approach, which can be called the "events paradigm" (Elliott, 1983; Horowitz, 1982; Rice & Greenberg, 1984), uses the intensive analysis of significant therapy events to describe the change process. Its counterpoint to Paul's (1967) "litany" is the question, "Which specific therapist interventions, introduced in which momentary therapeutic contexts, will lead to which immediate and subsequent impacts (outcomes) for the client?" (cf. Rice & Greenberg, 1984). The events paradigm thus focuses on (a) contexts, defined by the client presenting the therapist with a particular therapeutic task (e.g., to resolve a decisional conflict; Greenberg, 1980); (b) a particular applicable technique (e.g., the Gestalt two-chairs technique); and (c) the client's response to the technique, measured

both as immediate, in-session changes (sometimes called "suboutcomes," e.g., increased Experiencing Scale scores; Klein et al., in press) and as later, postsession or post-treatment outcomes (e.g., increases in goal attainment). Events paradigm research begins with identification of clinically significant events for study (e.g., those selected by virtue of therapist helpfulness or skillfulness; Elliott, 1984) and then focuses on a particular type of significant therapy event, such as resolution of problematic personal reactions using the evocative reexperiencing technique (Rice & Sapiera, 1984). Each event's context and sequence are intensively analyzed by multiple measures of therapy process (e.g., Elliott, 1983, 1984; Greenberg, 1983), and working models or clinical microtheories are developed to show how the change process works and can be facilitated in specific clinical situations (e.g., therapist neutrality in response to patient "tests" in psychoanalytic therapy leads to disclosure of previously avoided content; Horowitz, Sampson, Siegelman, Wolfson, & Weiss, 1975).

According to advocates, the events paradigm's emphasis on the contextual and sequentially evolving nature of psychotherapy makes it useful for practicing therapists, who must make decisions about interventions and techniques at specific moments in treatment. Comparative psychotherapy research has not concerned itself with this sort of understanding (Elliott, 1983; Rice & Greenberg, 1984), which may be why practicing therapists seldom find therapy research useful (Morrow-Bradley & Elliott, this issue). In contrast, events paradigm studies on the resolution of decisional conflicts (Greenberg, 1980, 1983), on the resolution of puzzling emotional reactions (Rice & Sapiera, 1984) or patient state change during therapy sessions (Horowitz, 1979; Luborsky, Singer, Hartke, Crits-Christoph, & Cohen, 1984), and on insight events (Elliott, 1984) all offer specific guiding information for therapists.

The events paradigm is a recent development and has not yet produced much more than the studies already cited, so its empirical power remains to be demonstrated.

Summary and Conclusions

Promise and Problems

This is an exciting period in the development of psychotherapy. Backed by a substantial body of evidence that psychotherapy is effective, the public policy case for psychotherapy is now strong (DeLeon et al., 1983), and psychotherapy researchers assuredly have a phenomenon—therapeutic change—to explain. However, this fact does not justify complacency. Although we know that psychotherapy works, we do not clearly understand how it works. Differently labeled therapies have demonstrably different behavioral contents, yet appear to have equivalent outcomes. Thus, the policy implications of current research do not extend to justifying the choice of a specific treatment for a particular individual.

The paradox of no differential effectiveness despite obvious technical diversity challenges some cherished beliefs of practitioners and underlines our comparative ignorance as to the mechanisms whereby psychotherapies

achieve their effects. Researchers have attempted to resolve the paradox by demonstrating differential outcomes (thus overturning the Dodo's verdict), by identifying a common core of therapeutic process (thus disputing the relevance of the technical diversity), or by reconceptualizing the issues. Their results illustrate the diverse solutions' promise and the problems needing further work.

Among the solutions that dispute outcome equivalence, meta-analysis has shown that more sensitive reviewing procedures can effectively marshal evidence of differential effectiveness, although the resulting slight advantage for behavioral-cognitive therapies may reflect an underrepresentation of high-quality humanistic and dynamic therapies in the research literature (cf. Parloff, 1984). The matrix paradigm, which has focused the field's thinking for a generation, has come into question, but for pragmatic reasons (the sheer variety and complexity of therapies, therapists, clients, and settings) rather than logical or empirical ones. Manualization and dismantling have become useful and practical strategies for specifying treatment ingredients; however, results of this better specification so far may have strengthened rather than weakened the Dodo's case. The appealing notion of qualitative outcome differences—which would suggest specific outcome measures targeted to particular clients or interventions—has yet to develop into a systematic account of what effects may be expected from particular treatments.

Among the solutions that dispute content nonequivalence, the earlier hope of finding a common core in the therapist's personal qualities or behavior appears to have faded. However, there is now more hope of finding a common core in clients' behavior or attitudes or in the alliance between therapist and client. All of these "common core" solutions run the risk of receding into unmeasurable abstraction, and much current work is aimed at moving from relatively global conceptualizations to detailed and reliable measurement.

Some solutions refuse to answer the question as represented in our title. The events paradigm productively redirects the scientific focus to the contents of brief segments of sessions and the short-term effects of interventions. Theoretical formulations that encompass the paradox appear less likely than the events paradigm to generate research; nevertheless, they reemphasize some important possibilities: that treatments may be effective for reasons other than those considered by therapists and that therapeutic interventions may initiate complex chains of events that take place outside the restricted view of researchers and therapists.

Of course, these solutions are not all mutually exclusive; they represent a diverse repertoire of concepts and methods that could be used in combination. To illustrate, better treatment specification (via dismantling) might eventually show that some therapies are superior at facilitating common active ingredients (to be identified) in the client's behavior or expectations. Or, clients' self-efficacy might be integrated with views of therapy as social influence (therapy as systematic use of persuasion tech-

niques to alter people's beliefs in their own efficacy). Or, an events paradigm temporal dissection of process coupled with a deemphasis on "effectiveness" in favor of "effects" might provide a base for a general theory of how face-to-face interaction leads to psychological change. Almost certainly, future work will need to go beyond the dichotomy of process versus outcome to more integrated notions of how people adjust and grow.

Taking a Closer Look

The Dodo's verdict is cast at the level of whole treatments and global effectiveness. In contrast, the more productive attempts to answer our title question—to resolve the paradox—show a clear trend toward more specificity, smaller units, greater precision of measurement, and multiple levels of analysis. We support this trend toward looking more closely at psychotherapy's processes and effects, and we advocate a concomitant reordering of research priorities.

More fine-grained thinking is evident with respect to both process and outcome among those who challenge outcome equivalence as well as those who challenge content nonequivalence. The closer look at process is apparent in efforts to specify the essential components of treatments via manualization and dismantling and in efforts to measure features of therapist and client behavior that may be common across therapies. Increasingly sophisticated process measures (Greenberg & Pinsof, in press; Russell, in press) aid and encourage these efforts. The closer look at outcome is represented by the movements toward differentiating outcomes via behavioral assessment, toward distinguishing specific effects from global effectiveness, and toward assessing the impact of subunits of therapy, such as sessions, events within sessions, and isolated types of interventions.

Matrix-paradigm researchers share the trend toward precision, particularly with respect to assessing (e.g., diagnosing) clients more carefully. So do meta-analytic reviewers, who can quantitatively assess the interactive influence of therapist, client, and situational factors. However, users of these approaches have generally viewed treatments in terms of theoretical labels and outcome in terms of global benefit. Further work is required to integrate these conceptual tools with the more differentiated emerging view.

Our emphasis on specificity is not a condemnation of theory. On the contrary, we believe that broader conceptualizations are much needed but are more likely to succeed if they begin with smaller, better specified units of analysis.

Despite the difficulties, the search for answers to the question in our title (or for a solvable recasting of the question) cannot be given up. The number of alternative solutions and the amount of research generated underline the question's continuing scientific and professional importance. Scientifically, psychotherapy remains a crucial arena for testing theories of personality and human behavior. Professionally, the scientific tangle over equivalence does not eliminate the need for therapists to make

choices daily about how best to treat their clients or about appropriate treatment recommendations for particular troubled people.

We see grounds for appeal of the Dodo's verdict in the new evidence brought by several of the proposed solutions, but each is currently balanced by enough uncertainties to warrant reserving judgment. Although it is too early to predict which appeal, if any, will be successful, each of us has his favorites (Elliott, 1983, 1984; Shapiro, 1981, 1985; Shapiro & Firth, in press; Stiles, 1982, 1983, in press). And we agree that if all psychotherapies draw on a common pool of psychological change mechanisms, identifying and measuring them will require an analysis that is far more fine grained than the foot race judged by the Dodo.

REFERENCES

- Abt, L. E., & Stuart, I. R. (Eds.). (1982). *The newer therapies: A sourcebook*. New York: Van Nostrand Reinhold.
- Agras, W. S., Kazdin, A. E., & Wilson, G. T. (1979). *Behavior therapy: Towards an applied clinical science*. San Francisco: Freeman.
- American Psychiatric Association (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: Author.
- Baer, P. E., Dunbar, P. W., Hamilton, J. E., & Bentley, L. E. (1980). Therapist's perceptions of the psychotherapeutic process: Development of psychotherapy process inventory. *Psychological Reports*, 46, 563-570.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.
- Bandura, A. (1984). Recycling misconceptions of perceived self-efficacy. *Cognitive Therapy and Research*, 8, 231-255.
- Bandura, A., & Adams, N. E. (1977). Analysis of self-efficacy theory of behavioral change. *Cognitive Therapy and Research*, 1, 287-310.
- Bandura, A., Adams, N. E., & Beyer, J. (1977). Cognitive processes mediating behavioral change. *Journal of Personality and Social Psychology*, 35, 125-139.
- Bandura, A., Adams, N. E., Hardy, A., & Howells, G. (1980). Tests of the generality of self-efficacy theory. *Cognitive Therapy and Research*, 4, 39-66.
- Bandura, A., & Cervone, D. (1983). Self-evaluation and self-efficacy mechanisms governing the motivational effects of goal systems. *Journal of Personality and Social Psychology*, 45, 1017-1028.
- Barrett-Lennard, G. T. (1962). Dimensions of therapist response as causal factors in therapeutic change. *Psychological Monographs*, 76 (43, Whole No. 562).
- Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression: A treatment manual*. New York: Guilford.
- Bergin, A. E., & Lambert, M. J. (1978). The evaluation of therapeutic outcomes. In S. L. Garfield & A. E. Bergin (Eds.), *Handbook of psychotherapy and behavior change: An empirical analysis* (2nd ed., pp. 139-189). New York: Wiley.
- Bergin, A. E., & Strupp, H. H. (1970). New directions in psychotherapy research. *Journal of Abnormal Psychology*, 76, 13-26.
- Bergin, A. E., & Strupp, H. H. (1972). *Changing frontiers in the science of psychotherapy*. Chicago: Aldine-Atherton.
- Bergin, A. E., & Suinn, R. M. (1975). Individual psychotherapy and behavior therapy. *Annual Review of Psychotherapy*, 26, 509-556.
- Berman, J. S., Miller, R. C., & Massman, P. J. (1984, August). Cognitive therapy versus systematic desensitization: Is one treatment superior? In J. S. Berman (Chair), *Meta-analytic reviews of psychotherapy outcome research*. Symposium given at the meeting of the American Psychological Association, Toronto, Ontario, Canada.
- Beutler, L. E. (1979). Toward specific psychological therapies for specific conditions. *Journal of Consulting and Clinical Psychology*, 47, 882-897.
- Beutler, L. E. (1983). *Eclectic psychotherapy: A systematic approach*. New York: Pergamon Press.
- Blanchard, E. B., & Andrasik, F. (1982). Psychological assessment and

- treatment of headache: Recent developments and emerging issues. *Journal of Consulting and Clinical Psychology*, 50, 859-879.
- Washfield, R. K., & Morey, L. C. (1979). The classification of depression through cluster analysis. *Comprehensive Psychiatry*, 20, 516-527.
- Wordin, E. S. (1979). The generalizability of the psychoanalytic concept of working alliance. *Psychotherapy: Theory, Research and Practice*, 16, 252-260.
- Workovec, T. D. (1982). Insomnia. *Journal of Consulting and Clinical Psychology*, 50, 880-895.
- Wunink, S. A., & Schroeder, H. E. (1979). Verbal therapeutic behavior of expert psychoanalytically-oriented, Gestalt, and behavior therapists. *Journal of Consulting and Clinical Psychology*, 47, 567-574.
- Wuckley, P., Karasu, T. B., Charles, E., & Stein, S. P. (1979). Theory and practice in psychotherapy: Some contradictions in expressed belief and reported practice. *Journal of Nervous and Mental Disease*, 167, 218-223.
- W Carroll, L. (1962). *Alice's adventures in wonderland*. Harmondsworth, Middlesex: Penguin Books. (Original work published 1865)
- W Chassin, J. B. (1979). *Research design in clinical psychology and psychiatry* (2nd ed.). New York: Irvington.
- W Chinsky, J. M., & Rappaport, J. (1970). Brief critique of meaning and reliability of "accurate empathy" ratings. *Psychological Bulletin*, 73, 379-382.
- W Cross, D. G., Sheehan, P. W., & Khan, J. A. (1982). Short- and long-term follow-up of clients receiving insight-oriented and clinical psychology. *Journal of Consulting and Clinical Psychology*, 50, 103-112.
- W DeLeon, P. H., VandenBos, G. R., & Cummings, N. A. (1983). Psychotherapy—Is it safe, effective, and appropriate? The beginning of an evolutionary dialogue. *American Psychologist*, 38, 907-911.
- W DeRubeis, R., Hollon, S., Evans, M., & Bemis, K. (1982). Can psychotherapies for depression be discriminated? A systematic investigation of cognitive therapy and interpersonal therapy. *Journal of Consulting and Clinical Psychology*, 50, 744-756.
- W DeWitt, K. N., Kaltreider, N. B., Weiss, D. S., & Horowitz, M. J. (1983). Judging change in psychotherapy: Reliability of clinical formulations. *Archives of General Psychiatry*, 40, 1121-1128.
- W DiLoreto, A. Q. (1971). *Comparative psychotherapy: An experimental analysis*. Chicago: Aldine-Atherton.
- W Dollard, J., & Miller, N. E. (1950). *Personality and psychotherapy*. New York: McGraw-Hill.
- W Dush, D. M., Hirt, M. L., & Schroeder, H. (1983). Self-statement modification with adults: A meta-analysis. *Psychological Bulletin*, 94, 408-422.
- W Eastman, C., & Marzillier, J. S. (1984). Theoretical and methodological difficulties in Bandura's self-efficacy theory. *Cognitive Therapy and Research*, 8, 213-229.
- W Elliott, R. (1983). Fitting process research to the practicing psychotherapist. *Psychotherapy: Theory, Research and Practice*, 20, 47-55.
- W Elliott, R. (1984). A discovery-oriented approach to significant events in psychotherapy: Interpersonal process recall and comprehensive process analysis. In L. Rice & L. Greenberg (Eds.), *Patterns of change* (pp. 249-286). New York: Guilford.
- W Elliott, R., James, E., Reimschuessel, C., Cislo, D., & Sack, N. (1985). Significant events and the analysis of immediate psychotherapeutic impacts. *Psychotherapy*, 22, 620-630.
- W Emrick, C. D., Lassen, C. L., & Edwards, M. L. (1977). Nonprofessional peers as therapeutic agents. In A. S. Gurman & A. M. Razin (Eds.), *Effective psychotherapy: A research handbook*. New York: Pergamon Press.
- W Evans, M., Hollon, S., DeRubeis, R., Tuason, V. B., Wiemer, M., & Auerbach, A. (1983, July). *Development of a system for rating psychotherapies for depression*. Paper presented at the 14th annual meeting of the Society for Psychotherapy Research, Sheffield, England.
- W Eysenck, H. J. (1978). An exercise in mega-silliness. *American Psychologist*, 33, 517.
- W Feifel, H., & Eells, J. (1963). Patients and therapists assess the same psychotherapy. *Journal of Consulting Psychology*, 27, 310-317.
- W Fiedler, F. E. (1950a). A comparison of therapeutic relationships in psychoanalytic, nondirective, and Adlerian therapy. *Journal of Consulting Psychology*, 14, 436-445.
- W Fiedler, F. E. (1950b). The concept of an ideal therapeutic relationship. *Journal of Consulting Psychology*, 14, 239-245.
- W Fiedler, F. E. (1951). Factor analysis of psychoanalytic, nondirective, and Adlerian therapeutic relationships. *Journal of Consulting Psychology*, 15, 32-38.
- W Fiske, D. W., Hugo, H. F., Luborsky, L., Orne, M. T., Parloff, M. B., Reiser, M. F., & Tuma, A. H. (1970). Planning research on the effectiveness of research on effectiveness of psychotherapy. *Archives of General Psychiatry*, 22, 22-32.
- W Frank, J. D. (1973). *Persuasion and healing: A comparative study of psychotherapy* (rev. ed.). Baltimore: Johns Hopkins University Press.
- W Frank, J. D. (1982). Therapeutic components shared by all psychotherapies. In J. H. Harvey & M. M. Parks (Eds.), *Psychotherapy research and behavior change*. Washington, DC: American Psychological Association.
- W Frank, J. D. (1983). The placebo is psychotherapy. *The Behavioral and Brain Sciences*, 6, 291-292.
- W Garfield, S. L. (1978). Research on client variables in psychotherapy. In S. L. Garfield & A. E. Bergin (Eds.), *Handbook of psychotherapy and behavior change: An empirical analysis* (2nd ed., pp. 191-232). New York: Wiley.
- W Garfield, S. L. (1980). *Psychotherapy: An eclectic approach*. New York: Wiley.
- W Garfield, S. L. (Ed.), (1983). Special section: Meta-analysis and psychotherapy. *Journal of Consulting and Clinical Psychology*, 51, 3-75.
- W Garfield, S. L., & Kurtz, R. (1976). Clinical psychologists in the 1970s. *American Psychologist*, 31, 1-9.
- W Gelder, M. G., Marks, I. M., & Wolff, H. H. (1967). Desensitization and psychotherapy in the treatment of phobic states: A controlled enquiry. *British Journal of Psychiatry*, 113, 53-73.
- W Gendlin, E. T. (1970). A theory of personality change. In J. T. Hart & T. M. Tomlinson (Eds.), *New directions in client-centered therapy* (pp. 129-173). Boston: Houghton-Mifflin.
- W Gendlin, E. T. (1978). *Focusing*. New York: Bantam.
- W Gendlin, E. T., Beebe, J., III, Cassens, J., Klein, M., & Oberlander, M. (1968). Focusing ability in psychotherapy, personality, and creativity. In J. M. Shlein (Ed.), *Research in psychotherapy* (Vol. 3, pp. 217-238). Washington, DC: American Psychological Association.
- W Gendlin, E. T., & Tomlinson, T. M. (1967). The process conceptualization and its measurement. In C. R. Rogers, E. T. Gendlin, D. J. Kiesler, & C. B. Truax (Eds.), *The therapeutic relationship and its impact: A study of psychotherapy with schizophrenics* (pp. 109-131). Madison, WI: University of Wisconsin Press.
- W Gilbreath, S. H. (1967). Group counseling, dependence, and college male underachievement. *Journal of Counseling Psychology*, 14, 449-453.
- W Gilbreath, S. H. (1968). Appropriate and inappropriate group counseling with academic underachievers. *Journal of Counseling Psychology*, 15, 506-511.
- W Gillan, P., & Rachman, S. (1974). An experimental investigation of desensitization in phobic patients. *British Journal of Psychiatry*, 124, 392-401.
- W Glass, R. M. (1984). Psychotherapy: Scientific art and artistic science? *Archives of General Psychiatry*, 41, 525-526.
- W Glass, G. V., McGaw, B., & Smith, M. L. (1981). *Meta-analysis in social research*. Beverly Hills, CA: Sage.
- W Goldfried, M. R. (1980). Toward the delineation of therapeutic change principles. *American Psychologist*, 35, 991-999.
- W Goldfried, M. R. (Ed.). (1982). *Converging themes in psychotherapy*. New York: Springer.
- W Goldfried, M. R., & Davison, G. C. (1976). *Clinical behavior therapy*. New York: Holt, Rinehart & Winston.
- W Goldfried, M. R., & Padawer, W. (1982). Current status and future directions in psychotherapy. In M. R. Goldfried (Ed.), *Converging themes in psychotherapy* (pp. 3-49). New York: Springer.
- W Goldstein, A. P. (1962). *Therapist-patient expectancies in psychology*. New York: Pergamon Press.
- W Goldstein, A. P., & Stein, N. (1976). *Prescriptive psychotherapies*. New York: Pergamon Press.
- W Gomes-Schwartz, B. (1978). Effective ingredients in psychotherapy: Prediction of outcome from process variables. *Journal of Consulting and Clinical Psychology*, 46, 1023-1035.
- W Gormally, J., & Hill, C. E. (1974). Guidelines for research on Carkhuff's model. *Journal of Counseling Psychology*, 21, 539-547.
- W Greenberg, L. S. (1980). An intensive analysis of recurring events from

- the practice of Gestalt therapy. *Psychotherapy: Theory, Research and Practice*, 17, 143-152.
- Greenberg, L. S. (1983). Toward a task analysis of conflict resolution in Gestalt therapy. *Psychotherapy: Theory, Research and Practice*, 20, 190-201.
- Greenberg, L. S., & Dompierre, L. (1981). The specific effects of Gestalt two-chair dialogue on intrapsychic conflict in counseling. *Journal of Counseling Psychology*, 28, 288-296.
- Greenberg, L., & Pinsof, W. (Eds.). (in press). *The psychotherapeutic process: A research handbook*. New York: Guilford.
- Greenson, R. (1965). The working alliance and transference neurosis. *Psychoanalytic Quarterly*, 34, 158-181.
- Greenson, R. (1967). *The technique and practice of psychoanalysis* (Vol. 1). New York: International Universities Press.
- Gurman, A. S. (1977). The patient's perception of the therapeutic relationship. In A. S. Gurman & A. M. Razin, (Eds.), *Effective psychotherapy: A handbook of research* (pp. 503-543). New York: Pergamon Press.
- Hall, C. S., & Lindzey, G. (1978). *Theories of personality* (3rd ed.). New York: Wiley.
- Hartley, D. E., & Strupp, H. H. (1983). The therapeutic alliance: Its relationship to outcome in brief psychotherapy. In J. Masling (Ed.), *Empirical studies of psychoanalytical theories* (Vol. 1). Hillsdale, NJ: Analytical Press.
- Haynes, S. N. (1978). *Principles of behavioral assessment*. New York: Gardner Press.
- Held, B. S. (1984). Toward a strategic eclecticism: A proposal. *Psychotherapy*, 21, 232-241.
- Hersen, M., & Barlow, D. H. (1976). *Single-case experimental designs: Strategies for studying behavior change in the individual*. New York: Pergamon Press.
- Hill, C. E., Thames, T. B., & Rardin, D. K. (1979). Comparison of Rogers, Perls, and Ellis on the Hill Counselor Verbal Response Category System. *Journal of Counseling Psychology*, 26, 198-208.
- Holroyd, K. A., Penzien, D. B., Hursey, K. G., Tobin, D. L., Rogers, L., Holm, J. E., Marcille, P. J., Hall, J. R., & Chila, A. G. (1984). Change mechanisms in EMG biofeedback training: Cognitive changes underlying improvements in tension headache. *Journal of Consulting and Clinical Psychology*, 52, 1039-1053.
- Horowitz, M. J. (1979). *States of mind: Analysis of change in psychotherapy*. New York: Plenum Press.
- Horowitz, M. J. (1982). Strategic dilemmas and the socialization of psychotherapy researchers. *British Journal of Clinical Psychology*, 21, 119-127.
- Horowitz, M. J., Marmar, C., Weiss, D. S., DeWitt, K., & Rosenbaum, R. (1984). Brief psychotherapy of bereavement reactions: The relationship of process to outcome. *Archives of General Psychiatry*, 41, 438-448.
- Horowitz, L. M., Sampson, H., Siegelman, E. Y., Wolfson, A., & Weiss, J. (1975). On the identification of warded-off mental contents. *Journal of Abnormal Psychology*, 84, 545-558.
- Hurvitz, N. (1974). Peer self-help groups: Psychotherapy without psychotherapists. In P. M. Roman & H. M. Trice (Eds.), *The sociology of psychotherapy*. New York: Jason Aronson.
- Jourard, S. M. (1968). *Disclosing man to himself*. New York: Van Nostrand.
- Jourard, S. M. (1971). *The transparent self* (rev. ed.). New York: Van Nostrand Reinhold.
- Kanfer, F. H. (1972). Assessment for behavior modification. *Journal of Personality Assessment*, 36, 418-423.
- Kazdin, A. E. (1978). Evaluating the generality of findings in analogue therapy research. *Journal of Consulting and Clinical Psychology*, 46, 673-686.
- Kazdin, A. E. (1979). Imagery elaboration and self-efficacy in the covert modeling treatment of assertive behavior. *Journal of Consulting and Clinical Psychology*, 47, 725-733.
- Kazdin, A. E. (1980). Covert and overt rehearsal and elaboration during treatment in the development of assertive behavior. *Behavior Research and Therapy*, 18, 191-201.
- Kazdin, A. E. (1980). *Research design in clinical psychology*. New York: Harper & Row.
- Kazdin, A. E., & Mascitelli, S. (1982). Covert and overt rehearsal and homework practice in developing assertiveness. *Journal of Consulting and Clinical Psychology*, 50, 250-258.
- Kazdin, A. E., & Wilson, G. T. (1978). *Evaluation of behavior therapy: Issues, evidence and research*. Cambridge, MA: Ballinger.
- Kiesler, D. J. (1966). Some myths of psychotherapy research and the search for a paradigm. *Psychological Bulletin*, 65, 110-136.
- Kiesler, D. J. (1971a). Experimental designs in psychotherapy research. In A. E. Bergin & S. L. Garfield (Eds.), *Handbook of psychotherapy and behavior change: An empirical analysis*. New York: Wiley.
- Kiesler, D. J. (1971b). Patient experiencing and successful outcome in individual psychotherapy of schizophrenics and psychoneurotics. *Journal of Consulting and Clinical Psychology*, 37, 370-385.
- Kiesler, C. A. (1985). Meta-analysis, clinical psychology, and social policy. *Clinical Psychology Review*, 5, 3-12.
- Klein, D. F., Zitlin, C. M., Woerner, M. G., & Ross, D. C. (1983). Treatment of phobias: Behavior therapy and supportive psychotherapy: Are there any specific ingredients? *Archives of General Psychiatry*, 40, 139-145.
- Klein, M. H., Mathieu-Coughlan, P., & Kiesler, D. J. (in press). The experiencing scales. In L. Greenberg & W. Pinsof (Eds.), *The psychotherapeutic process: A research handbook*. New York: Guilford.
- Klerman, G., Rounsaville, B., Chevron, E., Neu, C., & Weissman, M. (1984). *Manual for short-term interpersonal therapy for depression*. New York: Basic Books.
- Kornblith, S. H., Rehm, L. P., O'Hara, M. W., & Lamparski, D. M. (1983). The contribution of self-reinforcement training and behavioral assignments to the efficacy of self-control therapy for depression. *Cognitive Therapy and Research*, 7, 499-528.
- Lambert, M. J., Christensen, E. R., & DeJulio, S. S. (Eds.). (1983). *The assessment of psychotherapy outcome*. New York: Wiley.
- Lambert, M. J., DeJulio, S. S., & Stein, D. M. (1978). Therapist interpersonal skills: Process, outcome, methodological considerations, and recommendations for future research. *Psychological Bulletin*, 85, 467-489.
- Lambert, M. J., Shapiro, D. A., & Bergin, A. E. (in press). Evaluation of therapeutic outcomes. In S. L. Garfield & A. E. Bergin (Eds.), *Handbook of psychotherapy and behavior change* (3rd ed.). New York: Wiley.
- Landfield, A. W. (1980). The person as perspectivist, literalist, and chaotic fragmentalist. In A. W. Landfield & L. M. Leitner (Eds.), *Personal construct psychology: Psychotherapy and personality* (pp. 289-320). New York: Wiley Interscience.
- Leitner, L. M. (1982). Literalism, perspectivism, chaotic fragmentalism, and psychotherapy techniques. *British Journal of Medical Psychology*, 55, 307-317.
- Llewellyn, S. P., & Hume, W. J. (1979). The patient's view of therapy. *British Journal of Medical Psychology*, 52, 29-36.
- London, P. (1964). *The modes and morals of psychotherapy*. New York: Holt, Rinehart & Winston.
- Luborsky, L. (1976). Helping alliances in psychotherapy. In J. L. Claghorn (Ed.), *Successful psychotherapy* (pp. 92-116). New York: Brunner/Mazel.
- Luborsky, L. (1984). *Principles of psychoanalytic psychotherapy: A manual for supportive-expressive treatment*. New York: Basic Books.
- Luborsky, L., Crits-Christoph, P., Alexander, L., Margolis, M., & Cohen, M. (1983). Two helping alliance methods for predicting outcomes of psychotherapy: Accounting signs vs. a global rating method. *Journal of Nervous and Mental Disorders*, 171, 480-492.
- Luborsky, L., Singer, B., Hartke, J., Crits-Christoph, P., & Cohen, M. (1984). Shifts in depressive state during psychotherapy: Which concepts of depression fit the context of Mr. Q's shifts? In L. Rice & L. Greenberg (Eds.), *Patterns of change* (pp. 157-193). New York: Guilford.
- Luborsky, L., Singer, B., & Luborsky, L. (1975). Comparative studies of psychotherapies: Is it true that "Everyone has won and all must have prizes"? *Archives of General Psychiatry*, 32, 995-1008.
- Luborsky, L., Woody, G. E., McLellan, A. T., O'Brien, C. P., & Rosenzweig, J. (1982). Can independent judges recognize different psychotherapies? An experience with manual-guided therapies. *Journal of Consulting and Clinical Psychology*, 30, 49-62.
- Malan, D. (1976). *Toward the evaluation of dynamic psychotherapy*. New York: Plenum Press.
- Marziali, E. A. (1984a). Prediction of outcome of brief psychotherapy

- from therapist interpretive interventions. *Archives of General Psychiatry*, 41, 301-304.
- Iarziali, E. A. (1984b). Three viewpoints on the therapeutic alliance: Similarities, differences and associations with psychotherapy outcome. *Journal of Nervous and Mental Disease*, 172, 417-423.
- Iarziali, E., Marmar, C., & Krupnick, J. (1981). Therapeutic alliance scales: Development and relationship to psychotherapy outcome. *American Journal of Psychiatry*, 138, 361-364.
- Iathews, A. (1978). Fear reduction research and clinical phobias. *Psychological Bulletin*, 85, 390-404.
- McConaughy, E. A., Prochaska, J. O., & Velicer, W. F. (1983). Stages of change in psychotherapy: Measurement and sample profiles. *Psychotherapy: Theory, Research and Practice*, 20, 368-375.
- McDaniel, S. H., Stiles, W. B., & McGaughey, K. J. (1981). Correlations of male college students' verbal response mode use in psychotherapy with measures of psychological disturbance and psychotherapy outcome. *Journal of Consulting and Clinical Psychology*, 49, 571-582.
- McLean, P. D., & Hakstian, A. R. (1979). Clinical depression: Comparative efficacy of outpatient treatments. *Journal of Consulting and Clinical Psychology*, 47, 818-836.
- Meltzoff, J., & Kornreich, M. (1970). *Research in psychotherapy*. New York: Atherton Press.
- Michelson, L. (Ed.). (1985). Meta-analysis and clinical psychology. [Special issue]. *Clinical Psychology Review*, 5(1).
- Miller, R. C., & Berman, J. S. (1983). The efficacy of cognitive behavior therapies: A quantitative review of the research evidence. *Psychological Bulletin*, 94, 39-53.
- Mintz, J. (1981). Measuring outcome in psychodynamic psychotherapy: Psychodynamic vs. symptomatic assessment. *Archives of General Psychiatry*, 38, 503-506.
- Mintz, J., Auerbach, A. H., Luborsky, L., & Johnson, M. (1973). Patients', therapists', and observers' views of psychotherapy: A "Rashomon" experience on a reasonable consensus? *British Journal of Medical Psychology*, 46, 83-89.
- Mintz, J., Luborsky, L., & Auerbach, A. H. (1971). Dimensions of psychotherapy: A factor-analytic study of ratings of psychotherapy sessions. *Journal of Consulting and Clinical Psychology*, 36, 106-120.
- Mischel, W. (1968). *Personality and assessment*. New York: Wiley.
- Mischel, W. (1977). On the future of personality measurement. *American Psychologist*, 32, 246-254.
- Mitchell, K. M., Bozarth, J. D., & Krauft, C. C. (1977). A reappraisal of the therapeutic effectiveness of accurate empathy, nonpossessive warmth, and genuineness. In A. S. Gurman & A. M. Razin (Eds.), *Effective psychotherapy: A handbook of research*. New York: Pergamon Press.
- Moras, K., & Strupp, H. (1982). Pretherapy interpersonal relations, patients' alliance, and outcome in brief therapy. *Archives of General Psychiatry*, 39, 405-409.
- Morrow-Bradley, C., & Elliott, R. (1986). Utilization of psychotherapy research by practicing psychotherapists. *American Psychologist*, 41, 188-197.
- National Institute of Mental Health (1980). *Treatment of depression collaborative research program*. Unpublished manuscript, Psychosocial Treatments Branch, National Institute of Mental Health.
- Nicholson, R. A., & Berman, J. S. (1983). Is follow-up necessary in evaluating psychotherapy? *Psychological Bulletin*, 93, 261-278.
- Office of Technology Assessment (1980). *The cost implications of cost-effectiveness analysis of medical technology: Background paper #3: The efficacy and cost-effectiveness of psychotherapy*. (Stock No. 052-003-00783-5). Washington, DC: U.S. Government Printing Office.
- O'Malley, S. S., Suh, C. S., & Strupp, H. H. (1983). The Vanderbilt Psychotherapy Process Scale: A report of the scale development and a process-outcome study. *Journal of Consulting and Clinical Psychology*, 51, 581-586.
- Orlinsky, D. E., & Howard, K. I. (1977). The therapist's experience of psychotherapy. In A. S. Gurman & A. M. Razin (Eds.), *Effective psychotherapy: A handbook of research* (pp. 566-589). New York: Pergamon Press.
- Orlinsky, D. E., & Howard, K. I. (1978). The relation of process to outcome in psychotherapy. In S. L. Garfield & A. E. Bergin (Eds.), *Handbook of psychotherapy and behavior change: An empirical analysis* (2nd ed., pp. 283-329). New York: Wiley.
- Parloff, M. B. (1976, February 21). Shopping for the right therapy. *Saturday Review*, pp. 14-16.
- Parloff, M. B. (1979). Can psychotherapy research guide the policymaker? *American Psychologist*, 34, 296-306.
- Parloff, M. B. (1984). Psychotherapy research and its incredible credibility crisis. *Clinical Psychology Review*, 4, 95-109.
- Parloff, M. B., Waskow, I. E., & Wolfe, B. E. (1978). Research of therapist variables in relation to process and outcome. In S. L. Garfield & A. E. Bergin (Eds.), *Handbook of psychotherapy and behavior change: An empirical analysis* (2nd ed., pp. 233-282). New York: Wiley.
- Patterson, C. H. (1984). Empathy, warmth, and genuineness in psychotherapy: A review of reviews. *Psychotherapy*, 21, 431-438.
- Paul, G. L. (1966). *Effects of insight, desensitization, and attention placebo treatment of anxiety*. Palo Alto, CA: Stanford University Press.
- Paul, G. L. (1967). Strategy of outcome research in psychotherapy. *Journal of Consulting Psychology*, 31, 109-118.
- Prochaska, J. O. (1984). *Systems of psychotherapy: A transtheoretical View* (2nd ed.). Homewood, IL: Dorsey.
- Prochaska, J. O., & DiClemente, C. C. (1982). Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy: Theory, Research and Practice*, 19, 276-288.
- Rachman, S., & Hodgson, R. (1980). *Obsessions and compulsions*. Englewood Cliffs, NJ: Prentice-Hall.
- Rachman, S. J., & Wilson, G. T. (1980). *The effects of psychological therapy* (2nd ed.). New York: Pergamon Press.
- Rappaport, J., & Chinsky, J. M. (1972). Accurate empathy: Confusion of a construct. *Psychological Bulletin*, 77, 400-404.
- Rehm, L. P. (1977). A self-control model of depression. *Behavior Therapy*, 8, 787-804.
- Rice, L. N., & Greenberg, L. S. (Eds.). (1984). The new research paradigm. In L. N. Rice & L. S. Greenberg (Eds.), *Patterns of change*, (pp. 7-25). New York: Guilford.
- Rice, L. N., & Sapiera, E. P. (1984). Task analysis and the resolution of problematic reactions. In L. N. Rice & L. S. Greenberg (Eds.), *Patterns of Change*, (pp. 29-66). New York: Guilford.
- Roback, H. B. (1971). The comparative influence of insight and non-insight psychotherapies on therapeutic outcome: A review of the experimental literature. *Psychotherapy: Theory, Research and Practice*, 8, 23-25.
- Rogers, C. R. (1957). The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology*, 21, 95-103.
- Rogers, C. R. (1958). A process conception of psychotherapy. *American Psychologist*, 13, 142-149.
- Russell, R. L. (Ed.). (in press). *Language in psychotherapy: Strategies of Discovery*. New York: Plenum Press.
- Ryle, A. (1978). A common language for psychotherapies? *British Journal of Psychiatry*, 132, 585-594.
- Ryle, A. (1982). *Psychotherapy: A cognitive integration of theory and practice*. London: Academic Press.
- Ryle, A. (1984). How can we compare different psychotherapies? Why are they all effective? *British Journal of Medical Psychology*, 57, 261-264.
- Schaffer, N. D. (1982). Multidimensional measures of therapist behavior as predictors of outcome. *Psychological Bulletin*, 92, 670-681.
- Schofield, W. (1964). *Psychotherapy: The purchase of friendship*. Englewood Cliffs, NJ: Prentice-Hall.
- Shapiro, A. K. (1971). Placebo effects in medicine, psychotherapy, and psychoanalysis. In A. E. Bergin & S. L. Garfield (Eds.), *Handbook of psychotherapy and behavior change: An empirical analysis* (pp. 439-473). New York: Wiley.
- Shapiro, A. K., & Morris, L. A. (1978). Placebo effects in medical and psychological therapies. In S. L. Garfield & A. E. Bergin (Eds.), *Handbook of psychotherapy and behavior change: An empirical analysis* (2nd ed., pp. 369-410). New York: Wiley.
- Shapiro, D. A. (1975). Some implications of psychotherapy research for clinical psychology. *British Journal of Medical Psychology*, 48, 199-206.
- Shapiro, D. A. (1976). The effects of therapeutic conditions: Positive results revisited. *British Journal of Medical Psychology*, 49, 315-323.
- Shapiro, D. A. (1981). Science and psychotherapy: The state of the art. *British Journal of Medical Psychology*, 53, 1-10.

- Shapiro, D. A. (1985). Recent applications of meta-analysis in clinical research. *Clinical Psychological Review*, 5, 13-34.
- Shapiro, D. A., Barkham, M., & Irving, D. L. (1984). The reliability of a modified Helper Behaviour Rating System. *British Journal of Medical Psychology*, 57, 45-48.
- Shapiro, D. A., & Firth, J. A. (in press). Prescriptive vs. exploratory psychotherapy: Outcomes of the Sheffield Psychotherapy Project. *British Journal of Psychiatry*.
- Shapiro, D. A., & Shapiro, D. (1982). Meta-analysis of comparative therapy outcome studies: A replication and refinement. *Psychological Bulletin*, 92, 581-604.
- Shapiro, D. A., & Shapiro, D. (1983). Comparative therapy outcome research: Methodological implications of meta-analysis. *Journal of Consulting and Clinical Psychology*, 51, 42-53.
- Sidman, M. (1960). *Tactics of scientific research*. New York: Basic Books.
- Singer, J. L. (1980). The scientific basis of psychotherapeutic practice: A question of values and ethics. *Psychotherapy: Theory, Research and Practice*, 17, 372-383.
- Sloane, R. B., Staples, F. R., Cristol, A. H., Yorkston, N. J., & Whipple, K. (1975). *Psychotherapy versus behavior therapy*. Cambridge, MA: Harvard University Press.
- Smith, M. L., & Glass, G. V. (1977). Meta-analysis of psychotherapy outcome studies. *American Psychologist*, 32, 752-760.
- Smith, M. L., Glass, G. V., & Miller, T. I. (1980). *The benefits of psychotherapy*. Baltimore, MD: Johns Hopkins University Press.
- Speisman, J. C. (1959). Depth of interpretation and verbal resistance in psychotherapy. *Journal of Consulting Psychology*, 23, 93-99.
- Stiles, W. B. (1979). Verbal response modes and psychotherapeutic technique. *Psychiatry*, 42, 49-62.
- Stiles, W. B. (1980). Measurement of the impact of psychotherapy sessions. *Journal of Consulting and Clinical Psychology*, 48, 176-185.
- Stiles, W. B. (1982). Psychotherapeutic process: Is there a common core? In L. E. Abt & I. R. Stuart (Eds.), *The newer therapies: A sourcebook*, (pp. 4-17). New York: Van Nostrand Reinhold.
- Stiles, W. B. (1983). Normality, diversity, and psychotherapy. *Psychotherapy: Theory, Research and Practice*, 20, 183-189.
- Stiles, W. B. (1984). Client disclosure and psychotherapy session evaluations. *British Journal of Clinical Psychology*, 23, 311-312.
- Stiles, W. B. (in press). "I have to talk to somebody." A fever model of disclosure. In V. Derlega & J. Berg (Eds.), *Self-disclosure: Theory, research, and therapy*. New York: Plenum Press.
- Stiles, W. B., McDaniel, S. H., & McGaughey, K. (1979). Verbal response mode correlates of experiencing. *Journal of Consulting and Clinical Psychology*, 47, 795-797.
- Stiles, W. B., Putnam, S. M., & Jacob, M. C. (1982). Verbal exchange structure of initial medical interviews. *Health Psychology*, 1, 315-336.
- Stiles, W. B., & Sultan, F. E. (1979). Verbal response mode use by clients in psychotherapy. *Journal of Consulting and Clinical Psychology*, 47, 611-613.
- Strassberg, D. S., Anchor, K. N., Gabel, H., & Cohen, B. (1978). Self-disclosure in individual psychotherapy. *Psychotherapy: Theory, Research and Practice*, 15, 153-157.
- Strupp, H. H. (1955). An objective comparison of Rogerian and psychoanalytic techniques. *Journal of Consulting Psychology*, 19, 1-7.
- Strupp, H. H. (1957). A multidimensional analysis of therapist activity in analytic and client-centered therapy. *Journal of Consulting Psychology*, 21, 301-308.
- Strupp, H. H., & Hadley, S. W. (1977). A tripartite model of mental health and therapeutic outcomes: With special reference to negative effects in psychotherapy. *American Psychologist*, 32, 196-197.
- Truax, C. B., & Carkhuff, R. R. (1965). Experimental manipulation of therapeutic conditions. *Journal of Consulting Psychology*, 29, 119-124.
- Truax, C. B., & Carkhuff, R. R. (1967). *Toward effective counseling and psychotherapy: Training and practice*. Chicago: Aldine.
- Truax, C. B., & Mitchell, K. M. (1971). Research on certain therapist interpersonal skills in relation to process and outcome. In A. E. Bergin & S. L. Garfield (Eds.), *Handbook of psychotherapy and behavior change: An empirical analysis* (pp. 299-344). New York: Wiley.
- Urban, H. B., & Ford, D. H. (1971). Some historical and conceptual perspective on psychotherapy and behavior change. In A. E. Bergin & S. L. Garfield (Eds.), *Handbook of psychotherapy and behavior change: An empirical analysis* (pp. 3-35). New York: Wiley.
- VandenBos, G. R., & Pino, C. D. (1980). Research on the outcome of psychotherapy. In G. R. VandenBos (Ed.), *Psychotherapy: Practice, research, policy* (pp. 23-69). Beverly Hills, CA: Sage.
- Wachtel, P. L. (1977). *Psychoanalysis and behavior therapy: Towards an integration*. New York: Basic Books.
- Waskow, I. E. (Chair) (1983 September). *NIMH Workshop on psychotherapy process research*. Bethesda, MD: National Institute of Mental Health.
- Weiner, I. B. (1975). *Principles of psychotherapy*. New York: Wiley.
- Wilkins, W. (1984). Psychotherapy: The powerful placebo. *Journal of Consulting and Clinical Psychology*, 52, 570-573.
- Williams, S. L., Dooseman, G., & Kleinfeld, E. (1984). Comparative effectiveness of guided mastery and exposure treatments for intractable phobias. *Journal of Consulting and Clinical Psychology*, 52, 505-518.
- Wilson, G. T., & Evans, I. M. (1977). The therapist-client relationship in behavior therapy. In A. S. Gurman & A. M. Razin (Eds.), *Effective psychotherapy: A research handbook*, (pp. 544-565). New York: Pergamon Press.
- Wilson, G. T., & Rachman, S. J. (1983). Meta-analysis and the evaluation of psychotherapy outcome: Limitations and liabilities. *Journal of Consulting and Clinical Psychology*, 51, 54-64.
- Yates, A. J. (1983). Behaviour therapy and psychodynamic psychotherapy: Basic conflict or reconciliation and integration? *British Journal of Clinical Psychology*, 22, 107-125.
- Zeiss, A. M., Lewinsohn, P. M., & Minnoz, R. F. (1979). Nonspecific improvement effects in depression using interpersonal skills training, pleasant activity schedules, and cognitive training. *Journal of Consulting and Clinical Psychology*, 47, 427-439.
- Zetzel, E. (1958). The therapeutic alliance in analysis of hysteria. In E. Zetzel (Ed.), *The capacity for emotional growth*, (pp. 182-196). London: Hogarth Press.