

Final version published in: Strauss, B., Barber, J.P., & Castonguay, L.G. (eds.) (2015). *Visions in Psychotherapy Research and Practice: Reflections from the Presidents of the Society for Psychotherapy Research* (pp. 188-208). London: Routledge. © 2015 Routledge. This is a post-print version and may not exactly replicate the final version. It is not the copy of record.

Hermeneutic Single Case Efficacy Design (2002) **Robert Elliott**

Author Note. This chapter is based on the SPR Presidential Address delivered at the June 2001 meeting of the Society for Psychotherapy Research in Montevideo, Uruguay. It is abridged and corrected from the original, which can be found at DOI: 10.1080/713869614 . I gratefully acknowledge the inspiration of Art Bohart, on whose initial work the method described here is based, as well as the contributions of Denise Defey, Constance Fischer, David Rennie and Kirk Schneider; and my students, Mona Amer, Rob Dobrenski, Helena Jersak, Cristina Magaña, Rhea Partyka, Suzanne Smith, John Wagner, and especially Michelle Cutler. Address correspondence to Robert Elliott, School of Psychological Sciences & Health, 40 George Street, Glasgow G1 1QE UK; e-mail: Robert.elliott@strath.ac.uk.

Abstract

In this paper, I outline Hermeneutic Single Case Efficacy Design (HSCED), an interpretive approach to evaluating treatment causality in single therapy cases. This approach uses a mixture of quantitative and qualitative methods to create a network of evidence that first identifies direct demonstrations of causal links between therapy process and outcome, and then evaluates plausible nontherapy explanations for apparent change in therapy. I illustrate the method with data from a depressed client who presented with unresolved loss and anger issues.

Keywords: research design, single case design, hermeneutic research, depression, process-experiential psychotherapy

Hermeneutic Single Case Efficacy Design

All Gaul, wrote Julius Caesar (51 BCE/1960), is divided into three parts. Similarly, psychotherapy research can be organized into three main areas. Unlike ancient Gaul, these domains are defined not by the rivers that separate them but rather by the scientific questions that motivate them, and by the language, customs and principles of the researchers who seek to answer these questions.

These three questions and the research territories they define are: (a) Has this client (or group of clients) actually changed? (*outcome research*; e.g., Strupp, Horowitz, & Lambert, 1997); (b) Is psychotherapy generally responsible for change? (*efficacy research*; e.g., Haaga & Stiles, 2000); and (c) What specific factors (within therapy or outside it) are responsible for change? (*change process research*; e.g., Greenberg, 1986).

In this paper I focus on the second question, the causal efficacy of psychotherapy. However, tackling this question requires answering both the first question (whether there is any actual change), and the last question (what processes mediate change). Furthermore, I attempt to meet the challenge of answering these three questions for single therapy clients and nonbehavioral therapies, by proposing the Hermeneutic Single Case Efficacy Design (HSCED).

The Need for a Critical-Interpretive Approach to Causal Research Design

The standard tool for addressing the efficacy of psychotherapy, the randomized clinical trials (RCT) design, is an extremely blunt instrument that suffers from a host of scientific difficulties (Cook & Campbell, 1979; Haaga & Stiles, 2000), especially poor statistical power, differential attrition, and poor generalizability due to restricted samples.

Causal emptiness. Not the least of these difficulties are two related problems: First, RCTs rely on a stripped-down operational definition of causality (from J.S. Mill; see Cook & Campbell, 1979), in which inferring a causal relationship requires establishing: (a) temporal *precedence* (priorness); and (b) *necessity & sufficiency* (that cause and effect covary). Thus, RCTs are “causally empty,” offering conditions under which inferences can be reasonably made, but providing no method for truly understanding the specific nature of the causal relationship. For this reason, Haynes and O’Brien (2000) and others have argued that inferring a causal relation requires another condition, the provision of a plausible account (“logical mechanism”) for the possible causal relation. Unfortunately, RCTs provide no built-in method for establishing or identifying such plausible causal processes.

Poor generalizability to single cases. Second, RCTs do not warrant causal inferences about single cases. Even when a therapy has been shown to be responsible for change in general, for any specific client, factors other than therapy may actually have been the source of the observed or reported changes, or the client’s apparent change may have been illusory. The existence of this inference gap argues for moving the locus of causal inference from the group to the single case, where each client’s distinctive change process can be traced and understood.

Rescuing the $N = 1$ Design. The traditionally-sanctioned alternative to group experimental design has been single-participant experimental design. The logic and potential clinical utility of these designs is compelling (Sidman, 1960), and advocates have long argued for the applicability of these designs to nonbehavioral treatments (Peterson, 1968; Morgan & Morgan, 2001). Nevertheless, these designs depend on behavioral assumptions about the change process, especially the situational specificity of behavior. As a result, these designs have never caught on outside traditional behavior therapy, not even for cognitive-behavioral therapies.

In order to address the difficulties of applying single case design to nonbehavioral therapies, methodologists such as Kazdin (1981) and Hayes, Barlow and Nelson-Gray (1999) have proposed more flexible alternatives that stretch the guidelines of standard single case design, in particular, the clinical replication series. These authors have proposed the following characteristics of single case research as useful for increasing internal validity (Kazdin, 1981):

1. Systematic, quantitative data (vs. anecdotal).
2. Multiple assessments of change over time.
3. Multiple cases (a form of multiple baseline design).
4. Change in previously chronic or stable problems.
5. Immediate or marked effects following the intervention.

Sources of HSCED

Kazdin's (1981) general guidelines were one of the sources for HSCED. Another source was Cook and Campbell's (1979) brief description of the *modus operandi* (i.e., one-group post-only design), which they argued can be interpreted when there is rich contextual information and what they called "signed causes" (i.e., influences whose presence is evident in their effects). Mohr (1993) goes even further, arguing that the single case is the *best* situation for inferring and generalizing causal influences, which are obscured in group designs.

The final and most important source for HSCED was Bohart and Boyd's (1997) description of an interpretive approach to examining client qualitative accounts of change over therapy. Starting from a client's assertion that she has changed and her claim that this is the result of therapy, Bohart and Boyd asked, "What would it take to make a convincing case that *therapy* caused a reported change?" In general, the answer to this question takes the form of two types of information: (a) other evidence that the change occurred (corroboration); and (b) plausible ruling out of alternative possible sources of the change.

A *rich case record* of comprehensive information on therapy process and outcome (e.g., using multiple perspectives, sources and types of data) provides a useful starting point. However, *critical reflection* on the claim of therapy-caused change is also required, through maintaining awareness of one's personal expectations and theoretical presuppositions, while systematically searching for evidence that casts doubt on one's preferred account. To do this, Bohart and Boyd (1997) proposed a set of plausibility criteria for evaluating client causal accounts, including evidence for grounding in the client's experience, deviation from expectations, elaboration, discrimination between positive and negative effects and processes, idiosyncraticness, and coherence.

Essentials of Hermeneutic Single Case Design

In our society, experts systematically use practical reasoning systems to make various important judgments, including legal rulings and medical decisions. HSCED is proposed as such a practical reasoning system, with the specific purpose of evaluating the causal role of therapy in bringing about outcome. It builds on Bohart and Boyd's (1997) approach, but examines a larger set of alternative nontherapy explanations, makes greater use of quantitative outcome and weekly change data, and devotes more attention to systematically determining whether change has occurred.

Case Example. To illustrate HSCED, I use a running case example: a depressed, 49-year old male European-American client whom I will refer to as Paul. Paul's main presenting problems were financial worries, general negativity and cynicism, problems communicating with his son, and most importantly, unresolved issues from a rapid succession of the deaths in his family (mother, father, brother), 10 years previously. He was diagnosed with Bipolar II disorder (major depressive episodes plus hypomania) and seen at the Center for the Study of Experiential Therapy for 39 sessions of Emotion-Focused Therapy (EFT, also known as Process-Experiential therapy), primarily focusing on issues of anger and loss. He was seen by a second-year clinical psychology graduate student over the course of 16 months. I did the research interviews.

Rich Case Record

The first prerequisite for a hermeneutic single case efficacy design is a rich, comprehensive collection of information about a client's therapy. This includes background information, as well as data on therapy process and outcome, using multiple sources or measures. I have found the following data to be useful:

(a) *Basic facts* about client and therapist, including demographic information, diagnoses, presenting problems, therapeutic approach or orientation (e.g., given above for Paul).

(b) *Quantitative outcome measures*. Therapy outcome has both descriptive qualitative (*how* the client changed) and quantitative (*how much* the client changed) aspects. For Paul, quantitative measures included standard self-report questionnaires such as the Symptom Checklist-90 (Derogatis, 1983), the Inventory of Interpersonal Problems (Horowitz, Rosenberg, Baer, Ureño, & Villaseñor, 1988), and the Simplified Personal Questionnaire (PQ; Elliott, Shapiro & Mack, 1999). At a minimum, these measures should be given at the beginning and end of therapy, but it is also a good idea to give them periodically during therapy, every 8 to 10 sessions. Paul's quantitative outcome data are given in Table 1.

(c) *Change Interview*. The Change Interview (Elliott, Slatick & Urman, 2006) is a semi-structured interview that provides (a) qualitative outcome data, in the form of client descriptions of changes experienced over the course of therapy; and (b) client descriptions of their attributions for these changes, including helpful aspects of their therapy. (Information on negative aspects of therapy and on medications is also collected.) The Change Interview takes 30 - 45 minutes and is best carried out by a third party, every 8 - 10 sessions, at the end of therapy, and at follow-up.

Paul listed six pre-to-post changes, including "More calm in the face of challenges." "Giving myself more credit for accomplishments." "Doing better financially." "Being a happier person." "Being more hopeful about my life." and "(I) don't feel young anymore" (=a negative change). Paul rated these changes as highly unlikely without therapy and described how therapy brought them about: "I don't think I would have looked at those [feelings] on my own.... I think the therapy actually in some way... gave me a process of grieving, maybe not all the stages of grief, but some."

(d) *Weekly outcome measure*. A key element in HSCED is the administration of a weekly measure of the client's main therapy-related problems or goals. We used the Simplified Personal Questionnaire (Elliott, Shapiro & Mack, 1999), an individualized target complaint measure consisting of roughly ten 7-point distress rating scales.

Paul's weekly mean PQ scores are given in Figure 1, which reveals an erratic pattern of numerous statistically reliable (> 1.0) week-to-week shifts in PQ scores.

(e) *Helpful Aspects of Therapy (HAT) Form* (Llewelyn, 1988) is a frequently-employed qualitative measure of client perceptions of significant therapy events. This open-ended seven-item questionnaire is administered to clients after therapy sessions. In HSCED, HAT data are used to pinpoint significant therapeutic processes which may be associated with change on the weekly outcome measure or to corroborate change processes referred to in the Change Interview.

In his HAT descriptions, Paul gave 12 significant events ratings of 8 ("Greatly helpful") or higher. These descriptions provide a summary narrative of what the client considered at the time to be the most helpful events in his therapy.

(f) *Records of therapy sessions*. Therapist process notes and videotapes of therapy sessions are collected in case they are needed to pinpoint, corroborate, or clarify issues or contradictions elsewhere in the data.

For example, in order to make sense out of the largest shifts in Paul weekly PQ scores, I used his therapist's process notes.

Direct Evidence: Clear Links between Therapy Process and Outcome

In HSCED, the starting point is direct evidence pointing to therapy as a major cause of client change. In order to be confident about proceeding further with the analysis, it is best to have at least two separate pieces of evidence supporting the therapy-change link.

(1) *Retrospective attribution*. First, the client may directly attribute a reported change to therapy.

Clear support for the therapy efficacy hypothesis can be found in Paul's "likelihood-without-therapy" ratings and his description of the role his therapy played in helping him feel more calm in the face of challenges.

(2) *Process-outcome mapping*. The content of the client's posttherapy changes corresponds to specific events, aspects or processes within therapy.

For example, five of Paul's 12 high-rated significant events (e.g., Session 12: "Feeling the hurt, fear, and sadness related to the loss of my family. It enabled me to realize that I can feel what might be under my anger.") refer to work on unresolved loss/grief issues regarding his family of origin, his major posttherapy change.

(3) *Within-therapy process-outcome correlation*. In addition, theoretically central in-therapy process variables (e.g., adherence to treatment principles) may be found to covary with week-to-week shifts in client problems.

To examine this possibility for Paul's therapy, I correlated his therapist's postsession ratings of her use of Process-Experiential treatment principles, tasks and response modes with difference scores on the Personal Questionnaire (n=34 pairs of data points). Only two of the 63 correlations were statistically significant ($p < .05$), less than would be expected by chance. Therefore, at least on this basis, there was no evidence of a therapy-change link.

(4) *Early change in stable problems*. Therapeutic influence can be inferred when therapy coincides with change in long-standing or chronic client problems, contrasting with an explicit or implicit baseline.

Paul's mean PQ scores (Table 1) do appear to show a reliable, 2-point drop from pre- to post-treatment. Although we do not know how long Paul's problems had continued at roughly the same level, it is clear that some of them were of many years' standing.

Furthermore, his two pretreatment PQ mean scores are consistent with each other (4.44 and 4.11) and in the clinical range (i.e., well above the cut-off of 3). His weekly PQs (Figure 1) show some instability, but this appears to be a consequence of three outlier sessions (4, 24, 39). If these are ignored, the largest improvement occurs after session 1, moving the client into the nonclinical range.

(5) *Event-shift sequences*. An important therapy event may immediately precede a stable shift in client problems, particularly if the nature of the therapy process and the change are logically related to one another (e.g., therapeutic exploration of an issue, followed the next week by change on that issue).

Although Paul's PQ ratings contained many substantial shifts (Figure 1), the largest shifts appeared to reflect temporary *blips* associated with the three outlier sessions with no consistent relation to significant therapy events.

Thus, there was supportive evidence linking change to therapy, on three out of five possible indicators.

Indirect Evidence: Competing Explanations for Apparent Client Change

HSCED also requires good-faith efforts to find nontherapy processes that could account for an observed or reported client change. The practical reasoning process involved in evaluating these alternatives is like detective work, with contradictory evidence sought and available evidence weighed carefully. As a result, some nontherapy explanations may be ruled out entirely, while others may be found to partially or even completely explain the observed change. In addition, it is important to weigh both positive and negative evidence. Discrepancies point to complexities or restrictions on the scope of change or the possible role of therapy. A further consideration is the degree of uncertainty considered tolerable. The circumstances under which therapists and their clients operate preclude near certainty ($p < .05$), suggesting "reasonable assurance" or "beyond a reasonable doubt" ($p < .2$) as a more realistic and useful standard of proof. (The rest of this section is significantly abridged from the original version.)

1. Trivial or Negative Change

The first four nontherapy explanations assume that apparent client change is illusory or artifactual. First, the apparent changes may be trivial or negative. Trivial changes may be described in such highly qualified or ambivalent terms as to cast doubt on their importance, or may involve changes in other people or life circumstances (one of Paul's changes was "doing better financially"). Similarly, changes on quantitative outcome measures may also fall into the trivial range (e.g., one point on the BDI). Changes might also be negative, casting doubt on the overall effectiveness of the therapy. For example, at an earlier assessment, Paul noted that he and his son were now fighting more than when he began therapy. Changes on quantitative outcome measures may also occur in the negative direction.

In order to assess trivial or negative change, it is useful to define intervals or threshold values that can be used to define change as nontrivial. Jacobson and Truax (1991) proposed two criteria for evaluating change: (a) statistically reliable change and (b) movement past clinical caseness (i.e., clinical significance) cut-offs. Table 1 includes these criteria for three key measures (SCL-90-R, IIP, PQ).

Paul's outcome data indicate that from pre- to posttherapy he moved past the caseness threshold on 2 out of the 3 measures (SCL-90 and PQ) but that the amount of change was reliable on only 1 of these measures (PQ).

Next, in order to assess for negative changes, the researcher can ask the client to describe any negative changes that might have occurred over the course of therapy.

For example, at posttreatment, when Paul was asked about negative changes, he noted that he did not feel young anymore.

Finally, clients can be asked to evaluate the importance of changes, perhaps using rating scales (cf. Kazdin (1999)). In the Change Interview, the client rates the importance of each change, using a 5-point scale. In addition, the manner of the client's description can be examined for qualifiers and other forms of ambivalence.

Thus, in his posttherapy Change Interview, Paul rated all of his positive changes as either "very" or "extremely" important; by contrast, he rated his one negative change, feeling old, as "slightly" important. His descriptions of his changes were directly stated without qualifiers and even included occasional intensifiers ("I am *in fact* more calm than I've been in a *long time*").

2. Statistical Artifacts

Related to the possibility of trivial change is statistical error, including measurement error, regression to the mean, and experimentwise error. *Measurement error* involves random inconsistencies in quantitative measures. Jacobson and Truax's (1991) formula provides a confidence interval for defining a minimum *Reliable Change Index* (RCI) value for client change, at either the traditional 95% level or the 80% level proposed here. Client change which is less than the minimum RCI value is judged to reflect measurement error. Table 1 contains RCI minimum values for three common outcome measures: SCL-90, IIP, and PQ.

Paul's pre-to-post change on two of the three outcome measures was less than the prescribed values, although his change on the PQ is statistically reliable. However, the frequent drastic shifts in Paul's weekly PQ scores raised issues about temporal instability (consistent with his atypical bipolar diagnosis) and suggested that it would be a good idea to use the median of his first three and last three PQ scores (Table 1 values in parentheses). The difference between these pre- and posttherapy median PQ scores greatly exceeded the minimum RCI value of 1.00.

Regression to the mean occurs when measurements with less than perfect reliability are selected on the basis of their extreme values (Cook & Campbell, 1979). If regression to the mean is operating, then repeating the measurement prior to beginning therapy is likely to reveal a sharp drop; if this occurs, the second measurement can be used as the pretest.

For example, one possible explanation for the numerous sharp spikes in Figure 1 is measurement error followed by regression to the mean. However, Paul's two pretreatment PQ scores were fairly stable (both above 4 or "moderately distressed"), indicating that they were representative of his usual responses; thus, the substantial changes observed in Paul's PQ scores are probably not a function of regression to the mean.

Experimentwise error is a function of carrying out multiple significance tests on change measures. When examining several measures for evidence of change, some apparently reliable differences may occur due to chance alone. For example, when looking at change on three measures at $p < .2$, the probability of one or more measures out of three showing reliable change by chance was .49! The solution here was to require reliable change on two out of three measures, corresponding to a probability of $p < .10$. Requiring replication of reliable change across different outcome measures allows designating a client as demonstrating *Global Reliable Change*.

Using these criteria, Paul showed reliable change at posttreatment on only one out of the three measures, thus failing to demonstrate Global Reliable Change. However, he did satisfy this standard at 6-month follow-up (see last two columns in Table 1), and his posttherapy PQ change exceeded the $p < .05$ significance level. Thus, it would be most accurate to say that Paul showed reliable but limited change at follow-up but not immediately posttherapy.

3. Relational Artifacts

Apparent client improvement may also reflect interpersonal dynamics between client and therapist or researcher. The classic relational artifact is the legendary (but impossible to attribute) "*hello-goodbye*" effect, in which the client enters therapy emphasizing distress in order to impress the research staff to accept him/her. Then, at the end of therapy, the client emphasizes positive functioning, either to express gratitude to the therapist and research staff or to justify ending therapy. (I suspect that the use of fixed time limits in most therapy research works to strengthen this effect.)

In order to determine the role of these interpersonal artifacts, client narrative descriptions are invaluable. These accounts are probably most credible when they emerge spontaneously in therapy sessions or research interviews; however, researchers may prefer to obtain these accounts systematically via questionnaire or interview. Because interviews are a highly reactive form of data collection, client quantitative accounts of the effects of therapy need to be read very carefully for nuance and style, using Bohart and Boyd's (1997) plausibility criteria, especially elaboration and discrimination. The validity of client accounts is also enhanced if a researcher (rather than the therapist) interviews the client, and if the researcher conducts an extended, in-depth interview in which he or she encourages thoughtful self-reflection and openness on the part of the client.

Paul's Change Interview data contained substantial detail and at least some negative descriptions. Nevertheless, his manner and choice of language suggested that he may have deferred to me as an apparently successful authority figure, suggesting that he may have held back negative views of his therapy to avoid offending me. This would explain the discrepancy between his mixed quantitative outcome results and his highly positive Change Interview descriptions. Because I was aware of the possibility of his trying to please me, I tried to communicate the attitude that any critical comments would be especially appreciated because they would help improve the therapy.

4. Expectancy Artifacts

Cultural or personal expectations about therapy or wishful thinking may also give rise to apparent client change. That is, clients may convince themselves and others that since they have been through therapy they must therefore have changed. Post-therapy accounts are likely to be particularly vulnerable to this retrospective expectancy bias. Longitudinal measurement of change is no guarantee against clients expecting themselves to do better at the end of therapy and therefore giving themselves the benefit of the doubt when recalling, integrating, and rating subtle or ambiguous phenomena such as mood symptoms, relationships, or self-evaluations.

Examining the language clients use to describe their experience can be useful here, because expectation-driven descriptions are likely to rely on shared cultural *scripts* about the effects of therapy by using standard or clichéd phrases (e.g., "someone to talk to"). Client accounts of changes that conform entirely to cultural stereotypes are less credible than those that contain idiosyncratic content or word choice (cf. Bohart & Boyd, 1997).

For example, Paul's descriptions generally contained a mixture of stock elements (the idea that releasing blocked feelings is therapeutic), but often qualified in idiosyncratic ways (e.g., typifying this release as a gradual process occurring over the course of a year). Some of Paul's descriptions of his change process did have an intellectualized, self-persuasive quality, for example (*italics added*): "I *think* I could see the progress, and *that can only help* build self-esteem and self-confidence. So as that goes up, *maybe* proportionately, *maybe* the anxiety goes down." Faced with this self-speculative account, I asked Paul to check the accuracy of his description, which enabled him to elaborate a more experientially-based account of extended, painful grieving for deceased family members. In addition, on four of his six changes, Paul rated himself as "somewhat surprised."

5. Self-correction Processes

The remaining nontherapy explanations all assume that change has occurred, but that factors other than therapy are responsible. First, client internally-generated maturational processes or self-help efforts may be responsible for observed changes. For example, the client may have entered therapy in a temporary state of distress that has reverted to normal functioning via the self-limiting nature of temporary crises or the person's native problem-solving processes. In these instances, client self-healing activities operate prior to or independently of therapy. A general strategy for evaluating the final four nontherapy explanations is to ask the client:

When Paul was asked what brought about his changes, the first thing he said was "Being honest with myself, and being open to change, to trying new things." By itself, this statement would qualify as a report of self-generated change. However, without prompting, Paul then went on to indicate that this self-generated change process was related to therapy: "Since the therapy, I think I've had a lot more courage to really try new things. It's been exciting." In addition, Paul rated three of his six changes as "very unlikely without therapy".

Therapist process notes provide an efficient source of information about client self-help efforts, and can be used in conjunction with shifts in PQ scores.

Paul showed a large drop on his PQ after session 1; in her process notes, Paul's therapist noted that Paul had recently made the effort to speak to a friend with similar loss issues, and that this conversation had made him feel less alone.

Self-correction in particular can also be evaluated by comparing client change to a temporal or expectational *baseline*. A temporal baseline requires measuring the duration or stability of the client's main problems or diagnoses. In lieu of repeated pretreatment measurement, clinicians generally measure the baseline of a client's problem retrospectively, by asking the client how long he or she has had the problem.

A review of session tapes and therapist process notes made it clear that two of Paul's main problems -- anger/cynicism and unresolved grief -- were difficulties of at least 10 years standing, while his financial problems and anxiety about his son were of relatively recent vintage (i.e., on the order of months). The duration of his central problems make self-correction an unlikely explanation for his change on the PQ. Overall, there is clear support for Self-Correction as a *partial* influence on Paul's changes, but the evidence indicates that it is unlikely that Self-Correction was primarily responsible, without themselves reflecting the influence of therapy.

6. *Extra-therapy Events*

Extra-therapy life events include changes in relationships such as crises, deaths, divorces, initiation of new relationships, marriages, births. In addition, clients may change jobs, get fired from jobs, get promoted or take on new work responsibilities, change recreational activities, and so on. Extra-therapy events may be discrete or they may involve chronic situations such as an abusive relationship or the consequences of substance abuse or other problematic behavior. They may also include changes in health status due to physical injuries or illnesses or medical treatments, where these do not directly impinge on psychological functioning. Further, extra-therapy events can contribute both positively and negatively to therapy outcome, and have the potential to obscure the benefits of a successful therapy as well as to make an unsuccessful therapy appear to have been effective. Finally, it is important to consider the bidirectional influence of therapy and life events on one another.

The most obvious method for evaluating the causal influence of extra-therapy events is to ask the client. In the Change Interview, clients are asked what they think brought about changes. If a client does not volunteer extra-therapy events, the interviewer inquires about them. In addition, therapist process notes and session recordings are useful sources of information about extra-therapy events, because clients almost always provide in-session narratives about important positive or negative extra-therapy events. A useful method for locating important extra-therapy events is to look at weeks associated with reliable shifts in weekly change measures such as the PQ.

Extra-therapy events are the major nontherapy counter-explanation in Paul's treatment. When asked, Paul spontaneously described: "Support from my family.... Reading... I have to say my exercise, that's important... New activities. Mainly the jobs." His PQ data reveal one large, clinically significant drop at session 2, and three "spikes," at sessions 4, 24 and 39. Consistent with the drop before session 2, the therapist's process notes describe the client as feeling better, linking this to positive developments in his job and family, as well as a discussion with a friend with similar problems. On the other hand, extra-therapy events had a clear negative influence in the weeks prior to sessions 4 and 25.

7. Psychobiological Causes

The next possibility is that credible improvement is present, but is due primarily to unidirectional psychophysiological or hormonal processes, including psychotropic medications or herbal remedies; the hormonal effects of recovery or stabilization following a major medical illness (e.g., stroke) or after childbirth; or seasonal and endogenously-driven mood cycles. This is a particular problem for psychotherapy research when clients begin or change their medications within a month of beginning psychotherapy, or during therapy. The most obvious approach to evaluating psychobiological factors is to keep track of medications, including changes and dose adjustments. It is also important to ask about herbal remedies. (The Change Interview includes questions about both of these.)

Paul had been stable on his anti-anxiety medication since well before the beginning of therapy, and had been taking SSRIs for almost as long, with a minor increase in his latest SSRI one month before the end of therapy.

In addition, client interview data and therapist process notes provide useful sources of information about medication and the effects of other medical and biological processes.

For example, at his 6-month follow-up interview, Paul disclosed that he had suffered from a major, life-threatening illness during the intervening time, and had experienced a greater sense of focus and appreciation for what was important as a result.

8. Reactive Effects of Research

The final nontherapy explanation involves the reactive effects of taking part in research. These include helpful research activities (e.g., pre-therapy assessment), interactions with the research staff, and enhanced sense of altruism from helping others by taking part in research. On the other hand, research activities can have negative effects on clients, especially if they are particularly evocative or time-consuming. Teasing out the reactive effects of research on client outcome can be difficult, but qualitative interviewing about the effects of research can be useful. Another possibility is to use nonrecruited clients and unobtrusive data collection. Spontaneous comments during sessions, summarized in therapist process notes, are also worth noting.

For example, in session 4, Paul expressed concerns at not being able to be totally open in therapy, because of his concerns about the recording equipment. (Several times during therapy, he referred to "All you assholes watching this.") In addition, he sometimes wrote snide comments on his postsession questionnaire.

Summary and Conclusions of HSCED Analysis of Paul's Therapy

Reviewing the results of applying HSCED to Paul's treatment, there was clear or moderate support for 3 out of 5 types of direct evidence: retrospective attribution, immediate perception, and change in stable problems. Since the standard is replication across two or more types of direct evidence, this was more than adequate.

In terms of negative evidence, the standard is that no nontherapy explanation can by itself or in combination with other nontherapy explanations fully explain the client's change, although nontherapy explanations can and usually do play some role in accounting for change. For Paul, there was clear or moderate support against a primary role for all nontherapy explanations, except experimentwise error. The analysis indicates that the change reported on the PQ was unlikely to be due to chance, but identifies Paul's change as narrowly limited to his presenting problems (indicated by lack of change on the SCL-90 and IIP). Self-help, extra-therapy events are also important supporting influences but not to the exclusion of therapy.

Beyond this, however, what have we learned about psychotherapy from this intensive analysis? First, most simplistically, the analysis supports the claim that Process-Experiential/Emotion-Focused therapy can be effective with clients like Paul, i.e., clients with major depressive disorder plus hypomania ("Bipolar II"), particularly when they present with issues of anger and unresolved grief. Second, although effective, there was still room for improvement, especially with regard to a broader range of problems and areas of functioning. Third, the analysis makes it clear that therapy exerted its helpful effects within a context of other, supporting change processes, especially extra-therapy events and self-help efforts.

Specific Change Processes

Finally, in the process of sorting out the role of therapy in Paul's change process, I was able to use his descriptions of what he found helpful in his therapy, including post-session descriptions of significant events, but more importantly his descriptions from his post-therapy Change Interview. These accounts provided enough detail to allow me to construct the following model of his change process, providing a plausible account of the chain of events from cause (therapy) to effect (outcome) (Haynes & O'Brien, 2000):

First, in therapy, (a) Paul credited his therapist for "bring[ing] me back to certain areas that she thought I needed to work on, which I might have overlooked"; resulting in (b) "a consistent process of sharing my problems, my frustrations, my heartbreaks"; which (c) "gave me a process of grieving, maybe not all the stages of grief, but some." This grieving process was one of being "able to gradually release it over a year."

As a result of this, he was able to build on in-therapy work through his own efforts: (d) He said, "Then you see a tangible result. And even before [my nephew's] funeral I went out to my family's graves and I was able to cry." (e) After this, Paul said, he "start[ed] maybe for the first time in a long time, to recognize my progress"; and (f) "that can only help build self-esteem and self-confidence." (g) Finally, Paul implied that this extended grieving/release process had begun to undo his earlier problematic functioning ("I kept a

lot of things bottled up [before], and I think that just adds pressure, adds to the anger, adds to the anxiety"); leading to (h) reduced anger and anxiety about hurting other people with his anger ("feeling more calm, and not blowing challenges out of proportion").

Issues in Hermeneutic Single Case Efficacy Design

In order to carry out an HSCED study, one needs to (a) find an interesting and agreeable client; (b) collect appropriate measures; (c) apply them to construct a rich case record; (d) analyze the information to see if change occurred; (e) establish if direct evidence linking therapy to client change is present and replicated; (f) carefully analyze the evidence for each of the eight nontherapy explanations; (g) interpret and weigh the various sets of sometimes conflicting information; and (h) come to an overall conclusion about the likelihood that therapy was a key influence on client change.

HSCED is a new development and clearly needs further testing and elaboration. My team and I have applied HSCED to Paul and other clients (e.g., Elliott, Partyka et al., 2009). What we have learned so far can be summarized as follows:

First, the "Did the client improve?" question has turned out to be more complex than we first thought. Our clients often present us with a mixed picture, showing improvement on some measures and not others, or telling us that they had made great strides when the quantitative data contradicted this (see Elliott, Partyka et al., 2009). It is important not to underestimate the complexity of this initial step.

Second, this experience has convinced us that more work is needed on how to integrate contradictory information. We need better strategies for determining where the "weight of the evidence" lies (see Schneider, 1999).

Third, we find ourselves in need of additional creative strategies for evaluating nontherapy explanations. For example, to bolster the self-reflective/critical process of examining nontherapy processes, Bohart (2000) has proposed a form of HSCED that relies on an adjudication process involving separate teams of researchers arguing for and against therapy as a primary influence on client change, with final determination made by a "research jury." However, a less involved process might simply make use of two researchers, one (perhaps the therapist) supporting therapy as an important influence, the other playing "devil's advocate" by trying to support alternative explanations. The researchers might present both sides, leaving the final decision to a scientific review process (cf. Fishman, 1999). We are currently testing a form of adjudicated HSCED (Elliott, Partyka et al., 2009).

Fourth, in comparing HSCED to traditional RCT design, we have found that HSCED requires fewer resources but is in some ways more difficult and demanding in that it requires researchers to address complexities, ambiguities, and contradictions ignored in traditional designs. These complexities are present in all therapy research, but RCTs are able to ignore them by simplifying their data collection and analysis. In my experience, every group design is made up of individual clients whose change process is as rich and contradictory as the clients we have studied. The fact that these complexities are invisible in RCTs is yet another reason to distrust them and to continue working toward viable alternatives which do justice to each client's uniqueness, while still allowing us to determine whether (a) the client has changed, (b) whether these changes have anything to do with our work as therapists, and (c) what specific processes in therapy and in the client's life are responsible for these changes.

Beyond these relatively delimited research applications, HSCED raises broader issues, including the appropriate grounds for causal inference in applied settings, external validity, and the nature of causality in psychotherapy.

Causal inference in the absence of RCTs. Skilled practitioners in a variety of settings continually apply useful but implicit practical reasoning strategies to make causal judgments about single events, ranging from medical illnesses to lawsuits to acts of terrorism (see Schön, 1983). For example, forensic and medical practice are both fundamentally systems for developing and testing causal inferences in naturalistic situations. HSCED uses a set of procedures to assess possible alternative explanations for client change. The researcher uses a combination of informant (client and therapist) and observer data collection methods, both qualitative and quantitative. These methods confront the researcher with multiple possible indicators of which they must make sense, typically by looking for points of convergence and interpreting points of contradiction.

External validity with single cases. Logically, what can be demonstrated by a single case such as the one I have presented is the *possibility* that this kind of therapy (EFT, specifically, using primarily empathic exploration and empty chair work over the course of about 40 sessions) can be effective with this kind of client (male, middle-aged, European-American, intellectualizing, psychologically reactant) with this kind of problem (e.g., recurrent depression with hypomanic episodes, unresolved multiple losses, current family conflicts). Predicting how effective a similar therapy would be with a similar client would require a program of systematic replication (Sidman, 1960), and, ultimately, a summary of a collection of similar cases, analogous to precedents established by a body of case law (Fishman, 1999).

Nature of causation in psychotherapy. Another broad issue concerns the kinds of causal processes that are relevant to understanding change in psychotherapy. The following three propositions seem most consistent with how clients change over the course of therapy:

First, change in psychotherapy involves *opportunity* causes (bringing about change by opening up possibilities to the client), rather than *coercive* causes (forcing or requiring change). Psychotherapy appears to work by offering clients occasions to engage in new or neglected ways of thinking, feeling and acting and by helping clients remove obstacles to desired behaviors or experiences.

Second, if opportunity causes are the rule in therapy, then, by definition, change in therapy involves multiple *contributing causes* (“weak” or “soft” causation) rather than *sole* causes (“strong” or sufficient causation). After all, opportunities are not commands and can always be rejected or simply ignored. Therapist responses in therapy sessions, and even client-therapist interactions in sessions, can provide at best only a partial explanation of client change. Other factors must be assumed to play important roles as well, including extra-therapy life events, biological processes, and especially client internal self-help processes. A complete interpretation of the change process probably requires weaving together the different therapy and nontherapy strands into a narrative such as the one I presented at the end of the analysis section of this chapter.

Finally, the development of explanations of therapy outcome is a fundamentally interpretive process, involving a “double hermeneutic” (Rennie, 1999) of client (engaged in a process of self-interpretation) and researcher (engaged in a process of interpreting the self-interpreter). The double hermeneutic suggests that the client is a really a co-investigator, who acts always as an active self-interpreter and self-changer. As researchers, we follow along behind, performing a second, belated act of interpretation, carefully sifting through the multitude

of sometimes contradictory signs and indicators provided by the client. Although we are sometimes weighed down by methodology, nevertheless, it is our greatest desire to understand how our clients change, in order to become more effective in helping them do so.

References

- Barkham, M., Rees, A., Stiles, W.B., Shapiro, D.A., Hardy, G.E., & Reynolds, S. (1996). Dose-effect relations in time-limited psychotherapy for depression. Journal of Consulting and Clinical Psychology, 64, 927-935.
- Bohart, A.C., & Boyd, G. (Dec., 1997). Clients' construction of the therapy process: A qualitative analysis. Poster presented at meeting of North American Chapter of the Society for Psychotherapy Research.
- Bohart, A.C. (June, 2000). A qualitative "adjudicational" model for assessing psychotherapy outcome. Paper presented at meeting of Society for Psychotherapy Research, Chicago, IL.
- Cook, T.D., & Campbell, D.T. (1979). Quasi-experimentation: Design and analysis issues for field settings. Chicago: Rand McNally.
- Derogatis, L. R. (1983). SCL-90-R administration, scoring and procedures manual - II. Towson, MD: Clinical Psychometric Research.
- Elliott, R., Partyka, R., Wagner, J., Alperin, R. & Dobrenski. R., Messer, S.B., Watson, J.C. & Castonguay, L.G. (2009). An Adjudicated Hermeneutic Single-Case Efficacy Design of Experiential Therapy for Panic/Phobia. *Psychotherapy Research*, 19, 543-557.
- Elliott, R., Shapiro, D.A., & Mack, C. (1999). Simplified Personal Questionnaire Procedure. Manual, Department of Psychology, University of Toledo.
- Elliott, R., Slatick, E., & Urman, M. (2006). Qualitative Change Process Research on Psychotherapy: Alternative Strategies. In J. Frommer and D.L. Rennie (Eds.), *Qualitative psychotherapy research: Methods and methodology* (pp. 69-111). Lengerich, Germany: Pabst Science Publishers.
- Fishman, D.B. (1999). The case for pragmatic psychology. New York: New York University Press.
- Fitts, W.H., & Warren, W. L. (1996). Tennessee Self-Concept Scale (2nd ed). Los Angeles, CA: Western Psychological Services.
- Gosciny, R., & Uderzo, A. (1961/1969). Asterix the Gaul [Trans. A. Bell & D. Hockridge]. London, UK: Hodder Dargaud.
- Greenberg, L.S. (1986). Change process research. Journal of Consulting and Clinical Psychology, 54, 4-9.
- Haaga, D.A.F., & Stiles, W.B. (2000). Randomized clinical trials in psychotherapy research: Methodology, design, and evaluation. In C.R. Snyder & R.E. Ingram, Handbook of psychological change (pp. 14-39). New York: Wiley.
- Hayes, S. C., Barlow, D. H., & Nelson-Gray, R.O. (1999). The scientist practitioner: Research and accountability in the age of managed care (2nd ed.). Needham Heights, MA: Allyn & Bacon.
- Haynes, S.N. & O'Brien, W.O. (2000). Principles of behavioral assessment: A functional approach to psychological assessment. New York: Plenum.
- Horowitz, L.M., Rosenberg, S.E., Baer, B.A., Ureño, G., Villaseñor, V.S. (1988). Inventory of interpersonal problems: psychometric properties and clinical applications. Journal of Consulting and Clinical Psychology, 56, 885-892.

Jacobson, N.S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. Journal of Consulting and Clinical Psychology, *59*, 12-19.

Julius Caesar, G. (1960). War Commentaries of Caesar (R. Warner, Trans.). New York: New American Library (Original work published 51 B.C.E.).

Kazdin, A.E. (1981). Drawing valid inferences from case studies. Journal of Consulting and Clinical Psychology, *49*, 183-192.

Kazdin, A.E. (1999). The meaning and measurement of clinical significance. Journal of Consulting and Clinical Psychology, *67*, 332-339.

Llewelyn, S. (1988). Psychological therapy as viewed by clients and therapists. British Journal of Clinical Psychology, *27*, 223-238.

Mohr, L.B. (Oct., 1993). Causation and the case study. Paper presented at meeting of the National Public Management Research Conference, University of Wisconsin, Madison, WI.

Mohr, L.B. (1999). The qualitative method of impact analysis. *American Journal of Evaluation*, *20*, 69-84.

Morgan, D.L., & Morgan, R.K. (2001). Single-participant research design. American Psychologist, *56*, 119-127.

Ogles, B.M., Lambert, M.J., & Sawyer, J.D. (1995). Clinical significance of the National Institute of Mental Health Treatment of Depression Collaborative Research Program data. Journal of Consulting and Clinical Psychology, *63*, 321-326.

Peterson, D.R. (1968). The clinical study of social behavior. New York: Appleton-Century-Crofts.

Piper, W.E. (2001). Collaboration in the new millennium. Psychotherapy Research, *11*, 1-11.

Rennie, D. L., (1999). Qualitative research: A matter of hermeneutics and the sociology of knowledge. In M. Kopala & L.A. Suzuki (Eds.), Using qualitative methods in psychology (pp. 3-13). Thousand Oaks, CA: Sage Publications.

Schneider, K.J. (1999). Multiple-case depth research. Journal of Clinical Psychology, *55*, 1531-1540.

Schön, D.A. (1983). The reflective practitioner: How professionals think in action. New York: Basic Books.

Sidman, M. (1960). Tactics of scientific research. New York: Basic.

Strupp, H.H., Horowitz, L.M., & Lambert, M.J. (eds.) (1997). Measuring patient changes in mood, anxiety, and personality disorders: Toward a core battery. Washington, DC: APA.

Wagner, J, & Elliott, R. (2001). *The Simplified Personal Questionnaire*. Unpublished manuscript, Department of Psychology, University of Toledo.

Table 1
Outcome Data for Client PE-04 (Paul)

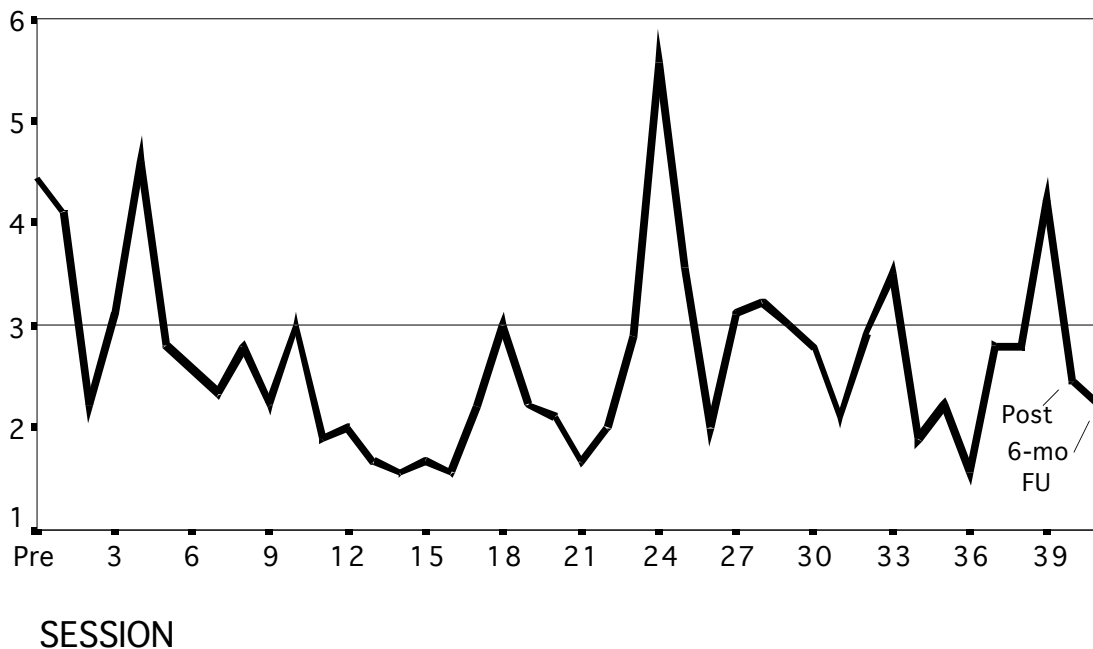
Measure:	Caseness	RC Min ($p < .2$)	Pre	Post	6-month follow-up
SCL-90-R GSI	.93	.51	1.17	.80	.47
Inventory of Interpersonal Problems-26	1.50	.57	1.69	1.62	.96
Personal Questionnaire	3.0	1.00 ^a	4.44 (4.11) ^b	2.44 (2.78) ^b	2.22

Note. Caseness: cut-off for determining whether client is clinically distressed; RC Min: minimum value required for reliable change at $p < .2$; "+" = Reliable improvement from pretherapy. Sources for values given: Barkham et al. (1996; Inventory of Interpersonal Problems); Ogles, Lambert & Sawyer (1995; SCL-90-R GSI); Wagner & Elliott (2001)

^aCorrected from original version

^bUsing median of three successive weekly scores to smooth instability of scores.

Figure 1
PQ Means Across Sessions: PE-04



Looking Back: Commentary on “Hermeneutic Single Case Efficacy Design” (Elliott, 2002)
Robert Elliott
University of Strathclyde

When I was a 26-year-old graduate student at UCLA, my advisor invited me to come along to the 1976 annual conference of the Society for Psychotherapy Research, at the Hotel del Coronado in San Diego, California, a couple of hours’ drive south from Los Angeles. It was my first scientific conference, and I hadn’t been organized enough to arrange for hotel accommodations before I left, so one of the two nights I ended up sleeping in my car. At the conference dinner, I heard Aaron Beck, the founder of cognitive therapy, give his presidential talk. I met Laura Rice, Les Greenberg, Len Horowitz, Bill Pinsof, to name just a few of the people who would later become friends. The conference changed my life; I was electrified by the possibilities of the field of psychotherapy research. At some point during the conference I decided in my youthful enthusiasm that I wanted someday to become president of SPR.

More than two decades later, I got my wish. Now I would have to think of something impressive and interesting to talk about! Fortunately, SPR gives its newly-elected General Vice Presidents about two years to come up with something. I had some time to mull over the subject of my talk. But what?

I had spent most of my career as a research methodologist, developing one new method after another. Why not do it again? That sounded like a good idea. I’d been interested in single case design since graduate school and early in my career had advocated greater use of systematic case studies (Elliott, 1983). More recently, I’d had a long talk with Art Bohart at the 1997 North American SPR meeting in Tucson, Arizona, about some ideas he had for an interpretive alternative to randomized clinical trials (Bohart & Boyd, 1997). What if we could develop a method for using qualitative data from client and therapist in order to help us decide whether therapy had caused the client to change? What would that look like? Art was developing a list of criteria for doing just that. (See Bohart, Berry & Wicks, 2011, for the latest iteration of his list.)

Together with my team of clinical psychology graduate students at the University of Toledo, I started playing around with some of the data we’d been generating in our research clinic. The method we began to develop, with Art’s inspiration, was both interpretive and focused on establishing causality between what happened in therapy (process) and what the client got out of it (outcome). “Hermeneutic” is a fancy word for “interpretive”, while “efficacy” is one of many euphemisms for “causal.” We seemed to have walked into an oxymoron: hermeneutics was supposed to be the opposite of causal research. Instead of beating around the bush, I decided to embrace the apparent contradiction, and called the method “Hermeneutic Single Case Efficacy Design,” or HSCED for short. (Pronounced “H-sked,” following Rhonda Goldman’s helpful suggestion.)

The first HSCED presentations were given in at the Chicago SPR meeting in 2000. After that, the method was further refined, and my SPR presidential talk began to take shape, around an interesting case, a depressed research client for whom I’d acted as researcher. Having heard me in Chicago, Kurt Schneider asked me for a short book chapter (Elliott, 2001) in which I presented the rationale and main procedures of the new method. Eventually, I gave my presidential talk, at the 2001 SPR conference in Montevideo, Uruguay and after that set about writing up the journal article version (Elliott 2002).

Looking back, I am very pleased with how the journal article version came out. There is very little I would change about it today. The essentials of the basic HSCED method are clearly

laid out in the paper, including guiding principles, design elements, types of linking evidence, list of eight alternative explanations, plus the research procedures for bringing all this off. Of course, the method has continued to evolve in important ways over the past 10 years.

At this point, the only thing I would want to clarify is the somewhat muddy distinction made between “direct” and “indirect” evidence, which is now more cogently described as the basis for the affirmative and skeptic cases, as part of the legalistic approach used in HSCED today.

HSCED 2.0: The Development of Adjudicated HSCED

In the ten years since Elliott (2002) was published, the next step in the development of the HSCED method was adding a quasi-judicial component. Because my father was an attorney, I had a long-standing interest in the application of legal principles and practices in research. In this I was once again strongly influenced by Art Bohart, who had also been experimenting with quasi-judicial case study methods (Bohart & Humphries, 2000).

The result was the case of “George,” a client with bridge phobia and panic, who received 23 sessions of emotion-focused therapy (Elliott et al., 2009). We used separate teams of researchers to assemble an agreed-upon set of evidence (the rich case record), along with affirmative and skeptic cases, rebuttals and closing arguments. The rich case record and the sets of arguments were presented to three judges, well-known psychotherapy researchers representing cognitive-behavioral (Louis Castonguay), psychodynamic (Stan Messer) and humanistic-experiential (Jeanne Watson) approaches. The judges were asked to rule on (a) whether the client had changed, and (b) whether therapy was responsible for the client’s changes. In addition, they were asked to describe their understanding of how change had come about. This elaborated HSCED method was cumbersome, but seemed warranted, first, because humanistic therapies are often assumed to be ineffective with anxiety disorders, and, second, because the quantitative and qualitative outcome data contradicted each another. In the end, the three judges unanimously agreed that the client had changed and that therapy was responsible for his changes. In their supporting opinion statements, the judges each explained the change process in terms of their particular theoretical orientation.

As an additional feature (originally introduced because of timing), the 6- and 18-month follow-up data were withheld from the judges. This provided an additional procedure for validating client change, which has since been regularly incorporated in HSCED studies.

In 2006, I moved from the Ohio to Scotland, where it quickly became clear the systematic case studies such HSCED were highly appropriate as masters-level research projects for the counseling and counseling psychology students I was now teaching. Using data from the new research clinic at the University of Strathclyde, students began carrying out adjudicated HSCED studies of clients with social anxiety. Three of these new studies have now been published, looking at the use of person-centered and emotion-focused therapies with this client population (McLeod & Elliott, 2012; McLeod, Elliott & Rodgers, 2012; Stephen, Elliott & McLeod, 2011).

This recent wave of HSCED research has led to further refinement and standardization of procedures for constructing rich case record and opposing arguments. In particular, my students and I have experimented with the procedure for judging cases. We have developed a format for judges to use, including more precise questions on which judges are asked to rule, including the use of 6-point rating scales. We have also moved toward mixed sets of student and professional-level judges.

Although these developments improve the rigor and appeal of the method, I think that the original version (Elliott, 2002) still has value and provides a useful starting point for understanding the method.

Impact of HSCED (Elliott, 2002) on Psychotherapy Research

According to the Web of Science (accessed on 8 June 2013), the journal article version of this talk (Elliott, 2002) has been cited 28 times; the publisher's website lists 61 citations. The most common citing journal is *Psychotherapy Research* (14 citations), but many of the citations are from *Counseling and Psychotherapy Research* (12) or *Person-Centered and Experiential Psychotherapies* (6), journals not indexed in the Web of Science. This locates the focal impact of Elliott (2002) in the readership of these journals, that is, psychotherapy and counseling researchers in the UK and the USA, many of a humanistic-experiential theoretical persuasion.

A recent book on psychotherapy case study research (McLeod, 2010) features a chapter in HSCED as part of "the new case study" movement in psychotherapy research. Systematic case study research, including HSCED, appears to have emerged as an important part of the current zeitgeist in psychotherapy research.

Elliott (2002) and the Future of Psychotherapy Research

What about the future? Human beings are not very good at predicting the future, because their predictions are generally guided either by wishful thinking or simplistic linear extrapolations from the present (Sterling, 2003).

Generalizing from single cases. I am going to skip the simple linear extrapolation and go directly to the wishful thinking: What do I hope for the future development of case study research in general, and HSCED in particular? First, dating back at least to Bromley (1986) and Fishman (1999), the goal of contemporary case study research has been to create generalizable, clinically relevant knowledge that practitioners can use, by analogy to the concept of legal precedent in case law. Since conducting large RCTs is out of reach for practitioners, the goal has been to empower them to contribute to the development of scientific knowledge via case research on their own or each other's practice. This is the long-term vision of the new case study movement. However, to do this we will need to develop clear practices and procedures that will provide a basis for generalizing from existing published cases to new cases.

Identifying specific causal processes. Right now, my money is on the specification of key moderator and mediator variables as a basis for generalizing from single case research. As HSCED has developed over the past 10 years, it has become ever clearer that we need to go beyond general causal inference to the specific causal factors responsible for change in therapy. Increasingly, an essential feature of HSCED studies has become an explicit enumeration and justification of (a) *mediators*, the particular within-therapy processes that helped bring about client change, such as the therapeutic relationship or particular techniques, and (b) *moderators*, the specific contextual or pretherapy factors that helped the client make use of therapy, such as client social environment and ability to make use of what is offered in therapy. In spite of its ubiquity, standard psychiatric diagnosis seems unlikely to be helpful here.

HSCED as Change Process Research. In the past, the concepts of mediating and moderating variables have been used almost exclusively to group design research. However, as I see it, there is great potential in applying these same ideas to single case research. At the same time, the increasing emphasis on mediating and moderating factors is moving HSCED into the

realm of change process research, thus connecting it to the other great traditions in psychotherapy research (Elliott, 2010)

Conclusion

In Elliott (2002), I cited Mohr's (1999) idea that the optimal place to identify causal processes in human behavior is not in randomized group designs. As appealing as they are, group causal designs blur the complex and diverse underlying causal processes, making them harder rather than easier to see. Instead, Mohr argued, the royal road to understanding what causes programs to succeed, or clients to improve, is via in-depth qualitative understanding of the single case. It is only by thoroughly understanding the individual that we can attain essential and generalizable knowledge about how people in general change. Like "hermeneutic" and "efficacy," this is another oxymoron, the seeming contradiction that underlies the emergence of the New Case Study movement in psychotherapy research. I am pleased that my SPR presidential talk, published as Elliott (2002), continues to play an important role in this still-developing approach to psychotherapy research.

References

- Bohart, A., Berry, M., & Wicks, C. (2011). Developing a Systematic Framework for Utilizing Discrete Types of Qualitative Data as Therapy Research Evidence. *Pragmatic Case Studies In Psychotherapy*, 7(1). Retrieved from <http://pcsp.libraries.rutgers.edu/index.php/pcsp/article/view/1076>
- Bohart, A.C., & Boyd, G. (Dec., 1997). *Clients' construction of the therapy process: A qualitative analysis*. Poster presented at meeting of North American Chapter of the Society for Psychotherapy Research.
- Bohart, A. C., & Humphreys, C. (2000, June). *A qualitative "adjudicational" model for assessing psychotherapy outcome*. Paper presented at the meeting of the International Society for Psychotherapy Research, Chicago, Illinois.
- Bromley, D. B. (1986). *The case-study method in psychology and related disciplines*. New York: Wiley.
- Carvalho, M.J., Faustino, I., Nascimento A., & Sales, C.M.D. (2008) Understanding Pamina's recovery: An application of the hermeneutic single-case efficacy design. *Counselling and Psychotherapy Research*, 8, 166-173.
- Elliott, R. (1983). Fitting process research to the practicing psychotherapist. *Psychotherapy: Theory, Research & Practice*, 20, 47-55.
- Elliott, R. (2001). Hermeneutic single case efficacy design (HSCED): An overview. In K.J.Schneider, J.F.T. Bugental & J.F. Fraser (eds.), *Handbook of Humanistic Psychology* (pp. 315-324), Thousand Oaks, CA: Sage.
- Elliott, R. (2002). Hermeneutic Single Case Efficacy Design. *Psychotherapy Research*, 12, 1-20. DOI: 10.1080/713869614
- Elliott, R. (2010). Psychotherapy Change Process Research: Realizing the Promise. *Psychotherapy Research*, 20, 123-135.
- Elliott, R., & Cowie, C. (2011). *HSCED Instructions for Judges and Opinion Pro Forma*. Unpublished research instrument, Counseling Unit, University of Strathclyde, Glasgow, Scotland.

Elliott, R., Partyka, R., Wagner, J., Alperin, R. & Dobrenski. R., Messer, S.B., Watson, J.C. & Castonguay, L.G. (2009). An Adjudicated Hermeneutic Single-Case Efficacy Design of Experiential Therapy for Panic/Phobia. *Psychotherapy Research*, 19, 543-557.

Fishman, D.B. (1999). *The case for pragmatic psychology*. New York: New York University Press.

McLeod, J. (2010). *Case study research in counselling and psychotherapy*. London: Sage.

MacLeod, R., & Elliott, R. (2012). Emotion-Focused Therapy for Social Anxiety: A Hermeneutic Single-Case Efficacy Design Study of a Low-Outcome Case. *Counselling Psychology Review*, 27: 7 - 22.

MacLeod, R., Elliott, R., & Rodgers, B. (2012). Process-Experiential/Emotion-focused Therapy for Social Anxiety: A Hermeneutic Single-Case Efficacy Design Study. *Psychotherapy Research*, 22, 67-81. DOI:10.1080/10503307.2011.626805

Mackrill, T. (2009). A Cross-Contextual Construction of Clients' Therapeutic Practice. *Journal of Constructivist Psychology*, 22, 283-305.

Mohr, L.B. (1999). The qualitative method of impact analysis. *American Journal of Evaluation*, 20, 69-84.

Peräkylä, A. (2004). Making links in psychoanalytic interpretations: A conversation analytical perspective. *Psychotherapy Research*, 14, 289-307.

Ryle, A. (2004). The contribution of cognitive analytic therapy to the treatment of borderline personality disorder. *Journal of Personality Disorders*, 18, 3-35.

Stephen, S., & Elliott, R. (2011). Developing the Adjudicated Case Study Method. *Pragmatic Case Studies in Psychotherapy*, 7(1), 230-241. Available online at: <http://pcsp.libraries.rutgers.edu>.

Stephen, S., Elliott, R., & Macleod, R. (2011). Person-centred therapy with a client experiencing social anxiety difficulties: a hermeneutic single case efficacy design. *Counselling and Psychotherapy Research*, 11, 55-66.

Sterling, B. (2003). *Tomorrow now: Envisioning the next 50 years*. New York: Random House.

Timulak, L., Belicova, A. & Miler, M. (2010). Client identified significant events in a successful therapy case: The link between the significant events and outcome. *Counselling Psychology Quarterly*, 23, 371-386.