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INVITED ARTICLE

FOCUS ON CHANGE: IMPLICATIONS FOR THE UNDERSTANDING AND EVALUATION OF PSYCHOLOGICAL INTERVENTIONS

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Within psychotherapy research traditions there are two cultures. One group of investigators, emphasizing the commonalities inherent in different schools of therapy and recognizing the extreme variability across clients and therapists, focuses on the interpersonal and emotional interactions between client and therapist as the agency of change in client well-being. The other, characterized by the cognitive-behavioral approach and supporting the empirically-supported treatment movement, focuses on the replicable procedures and techniques designed for and tailored to symptom change within specific syndromes. Both approaches are now drawing together by virtue of the growing recognition that all therapy can be represented as the arrangement of social and psychological experiences that facilitate change. We discuss some implications of this change model and describe some of the complexities of the changes that take place within the course of psychotherapy. Some broad principles of change are suggested and related concepts, such as means-ends relationships, response interrelationships, and practical and psychological barriers to change are briefly outlined. The value of monitoring change in clients, a long-standing tradition in behavior therapy, is argued, with one additional twist proposed, namely the monitoring of client experiences and actions that themselves facilitate change, regardless of the targeted problem area.

Key words: principles of change, trajectories, means-ends relationships, context, contingencies

INTRODUCTION

All psychologists and counselors who offer professional therapeutic services to the public—to clients with developmental, social, and emotional needs—want to be helpful. We want our therapy to have lasting benefits that will extend beyond the cessation of problems and will genuinely assist people have more fulfilling lives (Seligman, 1995). We have major disagreements, however, as to how this effectiveness can best be achieved. One school of thought (e.g., interpersonal psychotherapy) places the emphasis on personal characteristics and skills of the therapist, and seeks to understand, refine, and evaluate the varied transactions between therapist and client (Hubble, Duncan, Miller, & Wampold, 2010). The other major school of thought (e.g., cognitive-behavior therapy) places the emphasis on definable, replicable procedures delivered to the client according to a protocol, the integrity of which (the match between the procedure delivered and the procedure intended) can be assessed (Chambless & Hollon, 1998). Both traditions claim

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empirical support for the actions of the professional, yet they represent very different perspectives on which approach can claim the greater scientific credibility.

There is, however, one way in which both approaches are identical, and that is both involve—without explicitly acknowledging it—constructing for the client a set of new experiences which are intended to alter the client, to change him or her in some way. And so it is arguable that our professional focus should be on the principles and mechanisms of change and how to bring about meaningful transformations in client functioning (Evans, 2013). Expressed in this way, it seems only too obvious—surely all of psychotherapy is about facilitating change and no-one would suggest otherwise? It is our contention, however, that the language conventions we have come to use in psychotherapy, originating as they have from a mental health or medical context, have subtly steered us away from understanding the process of change (what the client has to do and experience) in favor of delivering a treatment (what the therapist has to do) (Kazdin, 2009; Rosen & Davison, 2003). The purpose of this paper is to examine the principles of change that are the necessary focus of all psychological intervention, as well as the shape or course of therapeutic change, and thus help to unite different approaches to therapy by exploring their commonalities.

IMPLICATIONS OF CHANGE AS THE FOCUS

There has been a long-standing debate regarding the importance of factors common to all psychological intervention (DeRubeis, Brotman, & Gibbons, 2005), such as role expectancies, the reactivity of being in treatment (Hawthorne effects), and especially the relationship between therapist and client. Whether treatment benefits reside in that relationship or whether they reside in the delivery of a procedure (protocol) is a false dichotomy, since both are obviously necessary features of a professional service. Imagine two people ice-skating at the level of the winter Olympic Games. The pair has a defined routine that is choreographed and can be replicated with some degree of precision. To implement it, however, they also must communicate with each other, have a mutual sense of purpose and desire, have a set of meaningful signals and the ability to sense and coordinate their moves in a fluid way. Some figure skating pairs will have great rapport but a simple routine, whereas others have complex routines that are inartistic because the connection between the pair is limited. Either feature (routine versus connection) could be emphasized and valued more than the other, but to win the gold medal you have to have both.

Analogies, by definition, are not exact models of the issues, but perhaps it can be seen that if psychotherapy is conceptualized as a learning experience for clients that will lead to changes in behavior (including thoughts and feelings), it may be that the field has moved in the wrong direction by conceptualizing psychological interventions as "treatments," or a "dose" of something (Howard, Kopta, Krause, & Orlinsky, 1986), or a "method," rather than the planning of unique, individualized re-learning or new learning opportunities. The "empirically validated/supported" treatment movement in clinical psychology, especially in cognitive-behavior therapy, has had the unintended consequence

of emphasizing the replicable thing to be done *to* the client rather than the facilitation of change. Trainees might be taught a therapeutic technique or protocol which has been given a brand name or has become identified with a prominent research clinician who has promulgated it. One of the unusual outcomes of this is that approaches to psychotherapy that are actually very similar, being components of a more general set of principles, are sometimes presented—to clients and to the profession—as unique, for example Dialectical Behavior Therapy, Acceptance and Commitment Therapy, and Cognitive Schema Therapy are all really adaptations of cognitive-behavior therapy. Similarly, Positive Behavior Support, Triple P (Positive Parenting Program), Incredible Years, and what consumers with autistic children call "ABA" (applied behavior analysis according to Lovaas) are all derivatives of child behavior modification. These therapeutic brands have obvious differences, but—in the same way that there are many different styles of washing machine—they all have critical features in common. They all promote change, just as the many different brands of washing machine will all wash your clothes—with varying degrees of consumer satisfaction in both cases.

Another unusual consequence of thinking of psychological intervention as fixed treatments is the distinction commonly made between treatment efficacy, established in well-controlled trials using highly standardized procedures on carefully selected clients, versus effectiveness—how well the treatment fares in everyday clinical practice with complex and diverse clients and therapists less well versed in the details of the technique. This is a false distinction because it assumes that the treatment protocol has inherent benefits independent of the characteristics of the therapist and the client. Client and therapist diversity requires flexibility in designing circumstances that promote change (Lutz, Lowry, Kopta, Einstein, & Howard, 2001). It is even possible that clinical cases with more severe needs but multiple levels of social support, and astute therapists with less training but more enthusiasm (the effectiveness condition), will achieve *better* outcomes (greater change) than in the fixed procedures with artificial conditions (the efficacy trials). That this possibility has never been seriously entertained in the treatment outcome literature shows how deeply ingrained is the idea that it is the pure protocol that carries the treatment effect rather than being a flexible arrangement of experiences resulting in meaningful change. In efficacy studies the treatment protocol is even sometimes compared to supposedly inert intervention or a "placebo" procedure, whereas all other forms of interventions are at least somewhat reactive (Eifert, Evans, & McKendrick, 1990), and placebos may also have their effect through mechanisms of change, such as classical conditioning (Schneider, 2012).

An argument might be made that good efficacy studies are better thought of as process studies (Lambert & Hill, 1994). That is to say, they are really designed to help us understand the internal validity of the protocol—exactly which components were responsible for change. But since all manualized treatment protocols are made up of a series of different components (e.g., stress management, psycho-education, practicing skills outside the therapy room, increasing social support), the process question often comes down to which of these named tactics are necessary and sufficient to produce a beneficial outcome, when in fact all of them are likely to make some contribution to

facilitating change. The process research strategy is a bit like systematically dismantling a car engine to see which bits work to propel the vehicle forward. You would find many named parts seem to contribute but are not truly causal: i.e., they don't explain the principles of the internal combustion engine—it is not the spark plug that is essential, it is the spark. Thus, you might find that filling the tank with gasoline is important, but that doesn't tell you that other fuels such as old cooking oil can be used almost as well, because the causal influence is not having a full gas tank but having a supply of explosively combustible material. Furthermore, the failure of a client to make progress may have nothing to do with the effective components of the intervention but be due to the many practical barriers to change—the road is too steep or muddy for the car to move forward even if all its working components are operating as they should.

Finally, a major implication of considering treatment as arranging experiences to facilitate change is that it shows that such experiences can be managed by clients themselves (called self-help therapies), or will simply occur naturally, outside the professional arena, in the course of everyday life (called "spontaneous recovery"). People often know or can deduce methods to promote change, and do so regularly (Gianakis & Carey, 2011), which is very fortunate as there will never be enough professional therapists to deal with human psychological distress (Kazdin & Blase, 2011).

If we wish to return to analyzing psychotherapy in all its rich manifestations, we probably need to consider more carefully the following two issues. (a) What desired change takes place during psychological intervention and what form or trajectory has this change taken when outcomes are judged to be successful? (b) What are the major psychological processes that cause or prevent therapeutic change and can they be summarized in a meaningful way? While this short essay cannot possibly answer these questions in detail, our goal is to describe some of the research and theory that seems to hold promise for a better understanding of the mechanisms of change in psychotherapy.

WHAT CHANGES IN PSYCHOTHERAPY?

Psychological treatments can be focused either on the cessation or reduction of a problem or on improvements in general functioning (Seligman, 1995). Beneficial outcomes vary from symptom accommodation, to decreases in the client-identified distress, to harm reduction, to immediate happiness, to pathways ensuring future well-being. Whether therapy goals are established as immediate or distal, and approach (acquiring something positive) or avoidance (getting rid of something negative), makes a difference to the outcome actually achieved, in addition to how the outcome is judged by the client, his or her community, and the professional. Shared, positive treatment goals and motivation are fundamental to behavior change (Evans, 2013).

With the majority of past outcome studies focused on pre- and post-treatment comparisons of symptom levels (Groth-Marnat, 2003), some research is now increasingly directed at understanding the evolving and underlying trajectory of change between these two points, as well as subjective satisfaction and societal benefit (Kazdin, 2007;

Laurenceau, Hayes, & Feldman, 2007). The methodology is complicated by the fact that therapeutic outcome has been measured in many different ways. In the radical behavioral tradition an essential feature of intervention evaluation and fine-tuning has always been the continuous monitoring of changes in frequency of the targeted behavior of concern—the classic single-case baseline measure (Barlow, Hayes, & Nelson-Gray, 1984). Because of the influence of the metaphor of "treatment" with its medical connotation, however, outcomes are now often implicitly represented as "cures"—the elimination of symptoms, yet there are many clinical situations (such as in rehabilitation) in which the desired outcome is the acquisition of new behaviors, or better coping with old ones. The popular mental health system concept of "recovery" is another version of cure, since it means recovery from an illness, a syndrome, such that symptoms no longer occur, without certainty that lifestyle has improved. Then there is the question of whether the outcome, whatever it is, is what was wanted by the client or by society. This idea of outcomes being judged as meaningful appears in a number of guises, such as clinically significant outcome, statistically significant change, and the social validity of the outcome (Meyer & Evans, 1993).

Only if you know what outcome you want can you evaluate whether the treatment has achieved it or not. But if we turn this idea on its head, we can simply assert that the client should decide where he or she hopes to get to in terms of change and the therapist could then suggest ways of monitoring that progress. It is this notion that has resulted in a great deal of recent attention being given to session by session measuring (monitoring) of client satisfaction (well-being). One of the most prominent scholars to follow this research plan has been Michael Lambert, who has developed the Outcome Questionnaire as a possible measure of change in client satisfaction. This instrument is sufficiently generic to allow its use across a range of problem areas (Lambert et al., 1996). There is a brief, four-item version called the Outcome Rating Scale, that simply asks clients how they are doing personally, socially, in terms of their relationships, and how are things in their life overall (Miller, Duncan, Brown, Sparks, & Claud, 2003). Useful as such measures are, almost all of the work of these groups of researchers is based on subjective outcome satisfaction rather than measuring theoretical components of change.

Stimulated by Howard and colleagues (Howard et al., 1986) patient-focused research in contrast concerns routine monitoring of an individual's progress while undertaking therapy. The resulting data can be provided as feedback to the clinician responsible. The strategy follows the assertion that the understanding of change principles, that is, what clients respond to in therapy and how this impacts on positive progress (Carey et al., 2007), is more important clinically than understanding the specific therapy being used (Rosen & Davison, 2003). Furthermore, focusing on the mechanisms that explain changes in therapy is likely to provide better structure to therapeutic systems and allows the quality of therapy to be maintained (Kazdin, 2009). Clinicians could then be better prepared to identify those individuals who are not as susceptible to such strategies, and therefore more attentive to when treatment alterations need to be made to induce a positive response (Kazdin, 2009). Patient-focused research has been promoted by growing use of reimbursement systems and specifications of accountability in the USA and the United

Kingdom along with a need for research that is easier to apply in the clinical setting (Nathan, Stuart, & Dolan, 2000).

There is another type of outcome monitoring that is also generic, which has been described by Evans (2005). The idea behind this instrument is the argument already made: there are certain change indicators of client progress in therapy or counseling that are universal. For example, as clients begin to cope with their emotional distress, they become more able to think of the needs and feelings of others. *How* they do this would be highly variable, and so the client might be given a chance to explain what, if anything, they have recently done for other people in the family, friendship network, or community. In this way the measure is culture-free, as the specific examples of providing emotional support for others are proposed by the clients themselves. Another idea from behavior therapy is that even though the habits that are the target of intervention may be hard to change and take time to be modified, there are other simpler things that the client might change in his or her lifestyle or daily behavior. Thus, we could assume that as treatment progresses the client will show evidence of making other small changes before the big changes become possible and are implemented. So again the client is asked to give their own individual examples of what they have changed. Another feature of successful change that seems well established is that changing expectations in a more positive direction early on are important to motivate the first steps towards more difficult changes. Yet another feature that has empirical support is that clients practice on their own the changes recommended by the therapist ("homework" tasks). Putting all of these and other hypothesized features of progress in elements of change together, Evans designed an instrument he called the SATPAC (Self-Assessment of Therapeutic Progress and Change); the different categories are listed in Table 1.

The implications of a behavioral model, such as that used in the SATPAC, are that therapeutic change occurs within a general process of adjustments and alterations clients make in their daily lifestyle and habits. These then promote and enable further or more complex change in the specific domains of distress. This has been a long-standing assumption in psychotherapy. Jung (1968), for example, proposed four change components essential to the true "healing" process: confession, elucidation/interpretation, education, and finally transformation, which Jung termed "analysis proper." Rogers (1958) proposed that the sequence of stages in therapy begin with changes he termed "loosening of feelings," followed by the development of new cognitive maps. This occurs alongside changing of self-perception to be more congruent with experience. His change model also identified shifting from ineffective to effective choice, freeing oneself from relationship fears, and developing sharp differentiation between feelings and meanings. There is evidence that when specific problematic issues are addressed in therapy, such as anxiety, other benefits accrue (Grafanaki & McLeod, 1999), as would be expected from dynamic systems theory in which one event becomes a catalyst for a cascade of others (Kelso, 1995).

Another perspective, drawing largely from cognitive therapy, is the assimilation model (Stiles, 2006). The argument is that a client's subjective distress throughout therapy, which inevitably fluctuates from week to week, is a function of stages

Table 1. Description of the items that can be found in the SATPAC—Self-assessment of therapeutic progress and change[1]

Today/this week: I became a client
Here the client is asked to state whether coming to therapy is perceived as a positive step on a new journey.

I found an ally
The client is asked to rate the extent to which they perceive the therapist as supportive, comfortable, and someone who really listens.

I bared my soul
The client rates the degree to which it was helpful to be totally honest with someone trustworthy, to self-disclose deep feelings that help him or her gain perspective and to experience the feeling of getting a weight off one's chest.

I learned something new about myself
The client rates the degree to which he or she now understands what triggers negative feelings, that automatic thoughts are not always constructive, and that attitudes and values are often a reflection of one's early upbringing.

I accepted that strong feelings aren't always bad
In this category the client is asked to rate the degree to which they have understood experiential avoidance, are learning simply to allow negative feelings to occur, and have learned to be mindful and savor new experiences.

I changed something about my weekly routines
Here the client reports making simple changes to lifestyle and old habits, not necessarily the behaviors targeted for change, but simply change of some kind.

I received useful feedback
It is thought that effective therapists provide constructive feedback to clients about how they might be coming across to others. This item also allows the client to rate whether they were more attentive to feedback from friends and family and accepting it without becoming upset.

I noticed I was using a "coping strategy"
Here the client reports examples of deliberately using coping and problem solving strategies taught in therapy.

I rearranged my environment
Changing environments, from rearranging furniture, to acquiring a pet, to putting flowers in the living room, can enhance the emotional climate of one's environment, and here the client reports whether any such efforts were attempted.

I could explain why I've been feeling the way I have been
Most schools of psychotherapy emphasize the importance of clients gaining insight, or better understanding of the causes of their distress. Often these explanations are components of the therapy's theory of psychological problems. In the SATPAC the items are in keeping with behavioral theories, such as attributing distress to previous relationships rather than "having" a specific psychiatric illness.

I did something good for myself
Here the client reports on positive, reinforcing experiences that they engaged in that week, such as going to the movies, buying new clothes, or cooking a great meal.

I did something good for someone else
As clients show real improvement they become less focused on themselves and their own needs and distress. In this item they are asked to report on positive things they have done for others, such as sending a cheerful e-mail or volunteering for a charity organization.

I added a new activity to my life
As clients make major changes in lifestyle they need new routines and activities that fill time. This item asks what new activities they plan on making a standard part of their week.

I knew what my therapist was going to say before she/he said it
It is thought to be a sign of a client really integrating the theory of the therapy (and thus making therapeutic progress) if he or she can anticipate what the therapist will offer in terms of advice, feedback, or commentary.

I had a good laugh at myself
Possibly the most obvious sign of therapeutic change is when issues or problems that once seemed overwhelming to the client can now be judged differently. This item includes examples of realizing it was silly to get angry at something minor, recognizing that others have similar problems, and the ability to poke fun at oneself.

I stopped being a client
The point at which a person no longer sees themselves as a client is a critical outcome, however this item also asks the client to rate whether he or she has a relapse prevention plan and a sense of confidence that they can continue to make progress on their own.

[1] For a full version that can be used with clients, please contact the first author at i.m.evans@massey.ac.nz

representing the extent of integrating problematic experiences within the client's own framework. Among these eight stages of change are unwanted thoughts, problem clarification, gaining insight, developing problem solutions, and ending in mastery (the generalization of newfound knowledge and understanding, enabling the client to enact problem solving strategies in future situations).

THE SHAPE OF THERAPEUTIC CHANGE

The work of Lambert, Miller, Lutz, Howard and other psychotherapy researchers within this same tradition of extensive monitoring of self-reported client well-being has proved enormously valuable for describing the shape of client progress when in psychotherapy. For example, the idea that clients initially get worse before they get better has been found to be a relatively rare pattern in clients, especially in those for whom therapy is ultimately helpful (Canen & Lambert, 1999). However it remains debatable as to whether the largest gains are obtained early in treatment, with benefits tapering off after a certain number of sessions, or whether there is a simple linear improvement in clients over time (number of sessions).

Trajectories of Therapeutic Change

There are three non-linear patterns or trajectories that have attracted a great deal of empirical attention: early rapid response, sudden gains, and when the therapy is for depression, the depression spike. We will discuss each of these in turn. When observing progress, session by session, in depressed clients, Ilardi and Craighead (1994) found that 60–70% of client improvement occurred within the first four sessions, followed by change leveling off. This is the early rapid response, and a number of theories have been proposed to account for it. One idea is that clients who respond early compared to those who do not, differ in their prior "readiness to change" (Lambert, 2005). Other theories propose that, instead of being a response to specific treatment factors, clients who respond early to therapy can be seen across a number of theoretical orientations, suggesting that common factors across numerous therapies may be responsible, such as the assurance that comes from a supportive relationship, or positive expectations that life will improve (feelings of hopefulness) (Ilardi & Craighead, 1994; Lambert, 2005). This idea stems from the defined period in which this type of improvement occurs: typically prior to the implementation of specific therapeutic techniques, suggesting that it is too soon for their effects to begin taking place. However, as we have argued, experiences represent the source of therapeutic change, and the distinction between techniques and "common factors" may be a spurious one.

In the defining sudden gains study (Tang & DeRubeis, 1999), the authors hypothesized that clients experience large decreases in depressive symptoms at a rapid rate, and that a reversal in depressive cognitions was responsible for such a pattern. As with the early rapid response, sudden gains are thought to be predictive of eventual therapy outcomes being positive, with findings demonstrating that those who experienced

sudden gains showed significantly less depressive symptoms when treatment ended.

One of the more recent non-linear concepts presented in the empirical literature is the depression spike (Hayes, Feldman, et al., 2007). This concept refers to a considerable increase in depressive symptoms, followed by a considerable decrease. To define a depression spike, researchers have used similar criteria to sudden gains, although in reverse terms (Hayes, Feldman, et al., 2007). That is, a depression spike is a seven point increase on the Beck Depression Inventory, followed by a seven point decrease within the phase of "exposure-activation" (Hayes, Feldman, et al., 2007). This then depicts a change progression over therapy reflecting a cubic shape, that is, an increase in symptoms followed by a further decrease. In contrast to sudden gains, the intense movement in scores found in the depression spike does not need to be sustained (Hayes, Feldman, et al., 2007).

INTERACTIONS: MEANS-ENDS RELATIONSHIPS

Most of the interesting new literature on early or sudden change during the course of psychotherapy still implicitly measures client improvement according to a model of symptom reduction. That is to say, the earlier forms of monitoring progress that assumed a linear change in symptom severity from pre- to post-treatment are still used, even though it is now recognized that the trajectory of change will not be linear (Hayes, Laurenceau, Feldman, Strauss, & Cardaciotto, 2007). However even symptom improvement, especially sudden gains, has secondary consequences for therapeutic progress. A client who clearly notices a change in targeted problem areas, such as a reduction in pain, improved sleep, less depression, fewer marital conflicts, and so on, is likely to experience improved mood, greater optimism for the future, and an increased willingness to engage positively with their physical and social environment. This type of interaction is what Evans (1985) has described as means-ends changes in clients. It represents an example of the way in which individual repertoires are organized as complex systems, in which change in one behavior will dramatically change another—a principle that was first developed in detail by Staats (1975).

The ubiquitous presence of response inter-relationships has important implications for the mapping of change processes during the course of therapy. One way to simplify the complexity of these interactions is to suggest that for many common client disorders such as anxiety or depression, there are three large dimensions of psychological experience that could be separately examined, despite their being inter-related (Carey, Carey, Mullan, Murray, & Spratt, 2006). (a) One category would be the overt manifestations or the symptoms of the syndrome that is being exhibited. The symptoms of depression are well known (feelings of hopelessness, loss of appetite, sleep difficulties, etc.). Most of these are well covered in symptom checklists, such as the Beck Depression Inventory.

(b) Another category might be called something like mood or general affect of dissatisfaction—the experience of malaise and social criticism that brought the client into therapy in the first place. In the case of anxiety disorders, these feelings might include a chronic sense of threat, feeling worried, lacking in confidence, lost social opportunities,

physical tension and being stressed by small daily hassles. (These are not the same as specific forms or occurrences of intense anxiety, such as a phobic reaction to small animals, or experiencing panic attacks in social situations.) There are various measures of general well-being versus unhappiness or distress (see Knoop & Delle Fave, 2013); in clinical practice a more common type of measure has been the PANAS (Positive and Negative Affect Schedule) (Watson, Clark, & Tellegen, 1988).

(c) The third major category would be in terms of desirable changes in actual behavior. In the case of anxiety this would be manifest in approach (or non-avoidance) of previously anxiety evoking situations. In the case of depression, desirable behavior change would be manifest in returning to old activities that had been abandoned, or instituting new, rewarding activities, such as spending quality time with family and friends, returning to work, playing a sport, or having a hobby.)

Fletcher and Evans (e.g., Fletcher, 2011) have suggested that these three large dimensions of clinical improvement (re-worded as symptom reduction, enhanced well-being or improved mood, and changes in daily behavior) would interact, because they exist in interdependent causal relationships. One could argue that once symptoms have improved, positive attitudes and mood increase, leading to desired changes in daily behavior. However the opposite relationship is also plausible, such as the client being encouraged to change behavior ("behavioral activation" in treatment protocols for depression), which would have beneficial effects on mood and in turn a reduction in symptoms.

To investigate how experienced and novice clinical psychologists would expect such patterns of change, we constructed a task in which the progress of two hypothetical clients, one with depression and one with an anxiety disorder (agoraphobia), was to be estimated during the course of 12 weeks of empirically-validated CBT-type interventions. Very detailed scenarios describing each client and the standard, empirically-supported CBT treatment were provided to the participants. The participants were told that three measures (one of symptoms, one of mood, and one of behaviors) were being monitored by the clinician providing the therapy, and the baseline levels of each were specified. We then asked the participants, imagining they were the therapist for these clients, to estimate the clients' scores on each measure, week by week during the course of 12 sessions of cognitive-behavior therapy. We were interested in seeing whether these clinicians expected that the clients would show steady, linear improvement on all three measures more or less equally, or whether they would hypothesize that improvement in one dimension would occur before or after there were improvements in others. Regardless of experience level, very few of the clinicians entered outcome data showing that they expected rapid gains early in treatment, or deterioration effects (such as the depression spike) later in treatments. They did expect that there would be noticeable clinical improvement after 12 weeks of therapy, and some participants expected that after 3 and 6 month follow-up periods some of these gains would be lost, but that improvement overall would be seen. None of the clinicians anticipated interaction effects between the three completely different categories of psychological state—they did not see symptom improvement only after behavior change or mood improving only after symptoms

decreased. The three hypothesized graphs of change in psychological characteristics over time followed largely parallel paths. Thus, for these New Zealand clinicians at least, different dimensions of client change (symptoms, feelings, and behavior) were seen as largely co-occurring rather than interacting. Our conclusion is that theories of change are less influential in clinical reasoning than the assumption that treatments result in the elimination of syndromes.

PRINCIPLES OF CHANGE

Although analogue tasks such as the one used by Fletcher and Evans have potential for examining clinical judgment, the reality is that without much more information about real clients' lives few predictions can really be made by a therapist. In the descriptions we provided our participants we also inserted what we thought would be triggers for the participants: critical moments when the fictional clients gained insight or made motivational commitments to change. Our participants did not respond to these by expecting alterations in change trajectories, but even if they had, these are the classic intra-psychic events that therapists tend to emphasize, whereas a vast psychological literature tells us that environmental events are what cause change (Gilbert & Malone, 1995).

It is unfortunately beyond the scope of this article to explore all the possible sources of influence on clients that might lead to the changes desired by clients and specified in their statements of their treatment goals (see Evans, 2013). One reason for the difficulty is that we do not have a unitary theory of behavior change, and when change principles are translated into therapeutic procedures the procedure or protocol seems to take precedence. An example of this can be seen in one of the oldest of the therapeutic protocols (techniques) in behavior therapy, Wolpe's (1958) "systematic desensitization (SD)." If the technique, with all its procedures and possible variations, explained its effects then SD would be like a best-practice medical treatment. But it is not like that: many different variations of the procedure all produce beneficial effects. It seems likely that the common change principle is essentially that of controlled exposure: the client needs to confront his or her anxieties and fears in a context which is perceived as safe enough, or which supports self-control sufficiently, to allow reasonably prolonged exposure to take place without there being the risk of re-traumatization.

That means that there could be a wide variety of methods for ensuring exposure under these conditions—it does not have to be done as imagined scenes going up a hierarchy while the client is relaxed by means of deep muscle relaxation procedure. None of these classic features of the technique have proved to be essential. What is essential is exposure. If that is the case, we can then relate the change principle quite reasonably to a plausible psychological process such as extinction (Evans & Wilson, 1968). Then, at the theoretical level, researchers can debate whether extinction follows the sorts of theories that emerged in classical conditioning or whether it can be better accounted for by altered cognitive expectancies and the processing of new rules about the probability of a threat

(McGlynn, Mealiea, & Landau, 1981). But the conceptual categories are clear: SD is the treatment protocol (possibly one of many); exposure resulting in re-learning is the change mechanism; and classical extinction theories and cognitive re-appraisal theories (or both) the explanation for the learning effects.

Some treatment strategies (therapeutic protocols) do identify more specifically with the change mechanisms. For instance, there have been good results reported for teaching clients the principles of effective problem-solving (Nezu, Nezu, & D'Zurilla, 2007). That is the mechanism: the analysis of a psychological problem in a way that permits strategies to be developed that will ameliorate the problem. The therapeutic techniques might vary. For instance, the methods describe by Shure and Spivack (1982) are different from the "problem solving therapy" described by Nezu and his colleagues. But the change mechanism is likely to be similar since it requires the unrestricted generation of possible solutions, weighing the pros and cons of each, and then selecting one as a course of action to be followed. The underlying mechanisms might also involve inhibiting impulsive responses in the problem situation, using past or newly acquired knowledge to formulate solutions, and being able to make choices. Again, once this sequence of influence is appreciated, the therapist need not introduce blindly a particular problem-solving protocol or curriculum. By seeing the needed change principles, which depend on underlying processes, it will also be possible to anticipate barriers, such as having poor information, difficulty inhibiting impulsive actions, or limited choices on account of social pressures from others.

INFLUENCES ON CHANGE

There are many variables that will influence change once therapy is expressed in these terms. For example, something that is often under-estimated in conventional treatment trials (especially "efficacy" studies) is the client's previous experiences with change efforts, on their own, or by professionals, friends or family members. Past positive experiences with change may facilitate future change, whereas attempts at control by others might restrict future change, through what are known as reactance effects.

There are personality variables that appear to relate to ability to change, such as cognitive flexibility, and sensitivity to rewards or punishments. Although somewhat circular, a popular intra-psychical theory regarding change is Bandura's (1997) theory of self-efficacy beliefs: positive therapeutic changes depend on an individual's belief that he or she can perform the actions that constitute or will lead to change. A similar expectancy concept is the belief that if a given action is performed it will be rewarded (as opposed to being ignored or punished). Another set of beliefs has been popularized in the Health Beliefs Model in explaining whether individuals make changes in lifestyle behaviors that research tells us are beneficial to health (for summaries see Lyons & Chamberlain, 2006). In order to make major changes, individuals are thought to have to both believe (recognize) the threats associated with not changing, and the likely effectiveness of the new behaviors (going for medical check-ups, giving up smoking,

exercising more, and so on).

While saying and doing are very different things, verbally expressed intentions to perform otherwise improbable actions do facilitate change. All of these mechanisms are similar in that they encompass social-cognitive principles regarding a person's understanding of themselves and what will benefit them and their family or community. Unlike the assumptions of traditional psychotherapy, the implicit change model is that the professional's goal is to change these beliefs, and that once that has occurred, by whatever means, the individual will be motivated to implement systematic behavior change (in everyday habits and lifestyle activities).

Equally important, if not more so, are the ecological barriers to change—all the environmental circumstances, physical, social, and opportunistic that facilitate or hinder change. In an excellent, popular account of change principles, Heath and Heath (2010) create the metaphor of a domesticated elephant making its way through the jungle. The rider is reason, who can make choices and calculate the best route; the elephant is emotion and motivation, without which the rider can go nowhere. But the path has to be negotiable—if it is too steep or too muddy, the elephant and the rider (just like the car we used in an earlier metaphor) cannot go forward. Ecological and social-community forces determine client change, providing both affordances and barriers. In such situations the shape of change (the dynamics and trajectory) will be very different than the kinds of change, already discussed, that might be expected by psychotherapy researchers evaluating changes in symptoms of disorders like anxiety and depression.

SEVEN BROAD CONCEPTS IN CHANGE THEORY

After providing a conceptual overview of many principles of change, and trying to sort them into a few super-ordinate categories, Evans (2013, pp. 265–266) suggested seven principles that seem to encompass many if not all of the causes of change in planful psychological intervention:

(1) *Context*. All behavior is highly context specific, and that while we often attribute people's actions to their internal personality dispositions (the fundamental attribution error, Ross, 1977), environments determine behavior, and thus need to be modified to change client behavior. Much of this influence, and the emotional meaning we assign to events is based on past learning experiences (Staats, 2012), such as association through classical conditioning, and new learning opportunities change the connotative meaning of events and objects, including people.

(2) *Contingencies*—the consequences of our actions—determine whether actions will be repeated and become habitual and functional skills or will be reduced from our repertoires (Schneider, 2012). But humans are not like rats in a cage: we have agency and can regulate these contingencies ourselves.

(3) *Experiences are processed and stored, and influence our response to new situations*. Both contexts and contingencies experienced in the past are stored cognitively as verbal symbols (words), images, and memories and our reactions to all situations are

dependent on the processing of automatic thoughts and other cognitive mechanisms involving decisions, choices, and the appraisal of meanings.

(4) *Social needs dominate motivation*. We try to maximize pleasure and minimize pain, which is the fundamental source of motivation. However social relationships, human values, and interpersonal aspirations are usually more important than material gain or loss. The individuals who are most meaningful to clients shape their everyday functioning for good or bad.

(5) *Self-regulation*. These same social forces require and promote self-regulation and the ability to manage our own emotions and be responsive to feedback. We learn means-ends relationships so that an understating of how goals can be achieved and how individual behaviors can be regulated are all part of self-control, planning, and emotion regulation, essential to adaptive functioning.

(6) *Response interrelationships*. Personality (individual differences) characterization reveals that our psychological repertoires are made up of complex sequences and hierarchies of behavior (feelings, thoughts, and actions). Emotions in particular can be manifest in different ways, thus allowing internal contradictions such as experiencing high anxiety but approaching a threat situation despite it. Generally, however, many forms of apparently harmful or irrational behavior can be explained by virtue of its function: the consequences of the behavior for the escape from or avoidance of yet more threatening and distressing feelings.

(7) *Cultural influences are profound*. The constraints on what might otherwise be unrestrained behavior come about because of the mores, morals, and values contained in the rules and expectations of our culture, to which we often unknowingly adhere.

A crucial question, however, is whether these broad principles of change are sufficient to allow a therapist to design optimal learning experiences that will alter the thoughts, feelings, and actions of clients seeking to be different. Until therapeutic methods are described and analyzed according to underlying, common principles of change, we will never really know the answer to that question. At the moment, therefore, the answer is almost certainly no: while a good treatment plan should recognize all seven principles to promote lasting and meaningful change, the therapeutic tactics whereby these principles are translated need to be operationalized, and not using the specialist language of the different schools of therapy. Strategically, for the future of psychotherapy, it seems to us essential that therapeutic methods, with their own terminology and guild-based concepts, need to be located theoretically within a common framework—the sources of influence revealed by psychological science.

CONCLUSIONS

We may be paying a heavy price for neglecting design for change as the critical element of psychotherapy. It may, for example, be the explanation why level of therapist experience seems to make little difference to client outcome (Sapyta, Riemer, & Bickman,

2005). If therapists are able to arrange experiences that facilitate change, it is not surprising that positive client outcomes usually occur rapidly, within 15 "sessions" (Hansen & Lambert, 2003). But thinking of therapy sessions as "dosage" fundamentally contradicts our perspective that outcomes are the result of change processes, promoted, certainly, by the professional therapist, but dependent on ensuring the rider, the elephant, and the path are all interacting effectively over time. If therapy depended only on sudden insights, for example, benefits could often be quite rapid, or if it depended on the slow uncovering of repressed memories and breaking down of unconscious defences, therapy could take years without showing change. Yet, neither pattern is typical. Instead, shifts take place in clients' everyday experiences that, when relevant to their central needs (problems, symptoms), begin the processes of appropriate change.

The therapeutic alliance is one experience that usually emerges early in professional engagement. The psychotherapy research tradition that has focused on process variables has tended to support a view that the therapeutic relationship and certain other factors of therapist style make a difference to outcomes, and benefits should occur quickly, although it is likely that later beneficial outcomes color the client's attitudes towards his or her therapist. Treatment outcome research, on the other hand, best exemplified by the cognitive-behavioral tradition, has supported the view that for certain types of problems (psychological syndromes) certain *procedures* that the client must follow systematically make a difference to outcome. Studies in this tradition, however, have tended to look at change in a linear fashion as a difference between pre- and post-treatment measures of symptoms. While until very recently these two camps have been strongly opposed to each other, it is now possible to see in the literature that there is grudging acknowledgment that both sets of findings have merit.

What has not been fully recognized up until now is that such developments require a new level of analysis for psychological treatments: what are the circumstances that produce the kinds of change that clients seek and how can they be summarized as "do-able" (Meyer & Evans, 1989) intervention strategies? This is a very different question from the one that has guided CBT research for more than 40 years: Paul's (1969, p. 44) classic question: "What treatment, by whom, is most effective for this individual, with that specific problem, under which set of circumstances, and how does it come about?"

Some clients will experience the relationship as a learning opportunity; others will need to explore these opportunities in the natural environment. Both contexts are probably necessary because the change model emphasizes experiences in which the meanings of stimuli, often social situations, are changed through association, and our actions themselves are changed by altering their consequences. For many psychological problems these new experiences that shape behavior are social, and so the natural environment that evokes and consequates behavior is especially important—family, friends, immediate community, culture and society. The task for future psychological treatment research is to identify the underlying principles of change that can be mobilized in practical ways to assist clients meet their goals to feel, think, and act more adaptively.

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