The Behavior Analyst 1994, 17, 289–303 No. 2 (Fall)

Acceptance and Commitment Therapy: Altering the Verbal Support for Experiential Avoidance

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Acceptance and Commitment Therapy (ACT) is a behavior-analytically-based psychotherapy approach that attempts to undermine emotional avoidance and increase the capacity for behavior change. An overview of this approach is given, followed by several specific examples of the techniques used within ACT. In each instance the behavioral rationale of these techniques is described. A contemporary view of verbal relations provides the basis for new approaches to adult outpatient psychotherapy.

Key words: rule-governed behavior, emotions, psychotherapy, Acceptance and Commitment Therapy, cognition

In our previous article in this series (Hayes & Wilson, 1993), we described a relational frame conception of verbal events, and related this theory to an analysis of rule-governed behavior. We developed the implications of this view for several clinical topics, including meaninglessness and existential angst, suicide, insight and self-knowledge, and the human tendency toward emotional avoidance. Together, these lines of thinking create the outlines of a theory of psychopathology, in which many common forms of psychopathology are interpreted as being the natural result of human verbal behavior.

Over the last 15 years we have developed a set of techniques designed to alter the way verbal relations function, based on this analysis. Taken together, these techniques form a behavior analytically derived psychotherapy approach: Acceptance and Commitment Therapy or ACT (pronounced "act" not "A-C-T"). (As this approach was being developed, it was known as comprehensive distancing, but the therapy was renamed to avoid the undesirable and inaccurate dissociative connotations of that term.) ACT is one of a very few comprehensive verbal psychotherapies that have consciously been based on behavior-analytic thinking (R. Kohlenberg, Hayes, & Tsai, 1993; R. Kohlenberg, Tsai, & Dougher, 1993).

In this article we will briefly summarize our approach. We will then explore two issues in greater detail, showing the kinds of things we do and providing a behavioral rationale.

ACCEPTANCE AND COMMITMENT THERAPY

The essential goal of ACT is to treat emotional avoidance, excessive literal response to cognitive content, and the inability to make and keep commitments to behavior change (Hayes, 1987; Hayes, Kohlenberg, & Melancon, 1989; Hayes & Melancon, 1989; Zettle & Hayes, 1986).

Conventional Support for a Causal Role of Private Events

Most psychotherapies deal, implicitly or explicitly, with the effect of client thoughts and feelings on overt behavior. In the usual view, certain undesirable emotions or thoughts are believed to cause undesirable patterns of living. On that basis these thoughts or emotions are targeted for change, control, or elimination. Avoidance of a variety of private events can be understood as both a socially encouraged outcome and as a natural outcome for verbal organisms as result of bidirectional transformation of stimulus functions through equivalence and other derived relational responses

Preparation of this manuscript was supported in part by Grant DA08634 from the National Institute on Drug Abuse.

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(see Hayes & Wilson, 1993, for a more complete discussion). Rather than trying to change the form or frequency of private events, ACT attempts to alter their psychological functions by altering the social/verbal context in which private events occur.

According to an ACT perspective, the controlling effects of private events over overt behavior are supported by the social/verbal context that supports the literality of language, and the resultant need to alter the form of private events. Suppose a panic-disordered person thinks "If I get too anxious I will go crazy." Given a context (both historical and situational) that supports the domination of derived stimulus functions based on such relational responses over other sources of behavior, the private event called "anxiety" may occasion a variety of disruptive behavior, such as running out of the situation "in order to reduce the anxiety" and thus avoid going crazy. From an ACT perspective, however, the behavior regulatory function of anxiety and thoughts about anxiety is not mechanical or direct. When the context supporting excessive literality is changed, the link between private events and overt action can be reduced, even in the presence of such thoughts, and attention can then shift from emotional or cognitive manipulation to the more direct consequences of overt action. In short, the issue becomes doing what works, particularly in the long term, rather than feeling, thinking, remembering, or sensing only certain things in order to do what works.

At least three aspects of the normal social/verbal context for human action are thought to contribute to the establishment of undesirable control by private behavior: (a) the impact of literal meaning and evaluation, (b) the acceptance of verbal reason giving as a valid explanation for individual behavior, and (c) social training that cognitive and emotional control can, and should, be achieved as a means to successful living.

Literality. Words enter into stimulus equivalence and other derived relations (Hayes & Hayes, 1989; Sidman & Tailby, 1982) with verbal and nonverbal events. Functions given to one member of a relational network will transfer to others in terms of the underlying relation. Such effects have been repeatedly documented in the equivalence literature (Hayes, Brownstein, Devany, Kohlenberg, & Shelby, 1987; Hayes, Kohlenberg, & Hayes, 1991; B. Kohlenberg, Hayes, & Hayes, 1991; Wulfert & Hayes, 1988). In common language, words mean the things to which they relate, and many functions that would adhere to the situation become present with regard to the words.

The verbal community arbitrarily establishes the specific relation between words and other events. These conventions are what we mean by "the context of literality." In many situations, this ability to respond to verbal formulations in some ways as if one were responding to the actual contingencies described is extremely adaptive. "Don't drink that—it's poison," for example, can establish a behavioral topography that would be difficult to acquire through direct contact with the contingencies described. Other descriptions are less clearly adaptive and, in some instances, may be psychologically destructive, such as "Don't feel X," or "Don't remember X." The problem is that in some contexts derived stimulus functions can dominate over other, more direct forms of behavioral influence. ACT seeks to undermine literality, such that literal meaning is no longer the necessary basis for responding—rather, it is the psychological context for responding only on the basis of experienced workability. In other words, we seek to limit rational responding to situations in which rationality is helpful as a basis for responding. To do this, however, derived stimulus functions must come more into balance with those acquired directly. To give a slightly simplified analysis of the example of the panic-disordered person we described earlier, the impact of "if I get too anxious I will go crazy" is based on at least three kinds of verbal relations: (a) a strong equivalence relation between various bodily sensations and behavioral predispositions and the term *anxiety,* (b) a similarly tight equivalence class between highly undesirable and socially

condemned behavior in others and "going crazy," and (c) the ability to apply an "if . . . then" relation as an operant class based on cues to do so rather than on direct experience with the sequential relation. The panic-disordered person's direct history is almost never that anxiety itself leads to going crazy. Indeed, the direct history is usually more that attempting to avoid anxiety creates anxiety (in part, because such avoidance paradoxically supports the if . . . then relation between anxiety and aversive ends, and anxiety is a natural response to imminent aversive stimulation). The domination of derived over direct stimulus functions is based, we argue, on the domination of contextual support for literal (i.e., highly relational) responding.

Reason giving. A second source of the relation between private events and overt behavior is reason giving. Thoughts and feelings are commonly pointed to as valid and sensible causes of overt behavior—an explanation for behavior that is well supported by the culture. A person saying "I was too anxious to stay at the mall" will certainly be thought to have said something reasonable and understandable. He or she may even garner sympathy or reassurance for this formulation. "I have no idea why I left" will probably receive a much less positive response. In this way, the verbal community establishes discriminative and motivational functions for a variety of private events that are conventionally part of reasons and explanations. The verbal community that reinforces (or does not punish) behavior because a reason points to a private event as a cause for that behavior, is also reinforcing two distinct things. First, it reinforces the behavior regulatory function of the private event itself. Second, it reinforces the occurrence of the private event that is actually related to the behavior that this event supposedly controls. For example, if one can successfully avoid a difficult job interview "because I am just too depressed to go," then (a) feeling depressed is more likely to lead to the avoidance of difficult tasks, and (b) depressed feelings are more likely when such tasks occur.

Most of these functions are conventional, however, rather than necessary. Depressed feelings need not necessarily lead to behavior change, and under other conditions they may not. One such condition may be the weakening of support by the verbal community for emotional or other experiential reasons. The social/verbal community of therapist and client created in an ACT session gives little or no support for reason giving of this kind.

Training in experiential control. The process of emotional and cognitive regulation as a means of behavior control begins quite early. Even babies are often evaluated according to how little they express negative affective states (e.g., "She's such a good baby, she never cries"). Children are told, regularly and often, that they can and ought to control negative affective states. Punishment and reinforcement are frequently doled out according to the ability to control and suppress at least the outward signs of aversive emotional states ("Stop crying or I'll give you something to cry about"). Siblings and schoolmates support the ongoing purposeful control of emotion. Statements such as "Don't be a baby" or "Just forget about X" will be backed up by a variety of socially mediated consequences (e.g., being hit, being shamed, etc.). Clients often arrive in therapy focused on this agenda: "I can't control my depression" or "I'm too anxious." Even in the therapeutic milieu, the therapist may overtly tell the client to emote, express, and report negative emotions, but in subtle ways may punish the client's negatively evaluated affect, thoughts, or memories. Furthermore, the therapeutic agenda itself may imply as much, because it is common to accept as a goal of therapy the reduction or alteration of emotional and cognitive events. Given these contingencies, private events gain more behavior regulatory power, because they occasion such determined efforts to alter their form or frequency of occurrence.

SYNOPSIS OF ACT

Clients naturally come into therapy with the intent to control what they view

TABLE 1

Essential components of acceptance and commitment therapy

Component	Behavioral/ rule-governed behavior (RGB) principles	Purpose	Technique
Creative hopelessness	Augmentals, altering discriminative value of avoided private events as S^D's for avoidance repertoires	Disruption of ongoing avoidance repertoires, disruption of social verbal support for avoidance (S^D, EO), making psychologically present the futility of the pursuit of relief in providing relief	Paradox, confusion, metaphor, affirmation of underlying fears about hopelessness
Control of private events as problem	Establishing tracks, disruption of pliance	Describe contingencies generating and maintaining avoidance, describing ways avoidance inhibits life functioning	Direct description, experiential exercises (e.g., polygraph metaphor), description of inherent paradox
Discriminating observing self from content observed	Altering the context (S^D, EO) for control	Establishing a context from which psychological acceptance is possible, and where avoidance is unnecessary	Experiential exercises (e.g., observer exercise), deliteralization exercises (e.g., milk-milk-milk)
Choosing and valuing a direction	Establishing tracks linked to verbally constructed consequences (see Hayes & Wilson, 1993), augmenting	Supporting the client in making contact with what he or she would choose to value in life, establish valuing as an activity, distinguishing choices from decisions and describing the appropriate arena for each	Direct description, ordinary life examples
Letting go of the struggle/embracing symptoms	Facilitating contact with direct contingencies (versus RGB)	Facilitate the direct shaping of repertoires possible in the absence of the second-order agenda of avoiding classically conditioned responses	Metaphor, willingness exercises, experiential exercises
Commitment and behavior change	Establishing tracks based upon results of above processes	Facilitating the client's choosing directions that he or she values, while noticing the various private events that emerge, as what they are, not what they say they are, *and* doing what is there to be done	Making behavioral commitments, willingness exercises

as the determinants of their problematic life condition. Taken together, the above circumstances and contingencies focus attention on the apparent need for more successful avoidance repertoires (i.e., elimination of disturbing emotions, thoughts, memories, impulses, and so on). The presence of these learned stimulus functions for private events can prevent contact with other sources of reinforcement. ACT attempts to disrupt this problematic stimulus control, opening up the possibility of contact with alternative sources of reinforcement.

We will first describe in very general ways the components of ACT, arranged into several short sections (Table 1). We will then explore aspects of two of these

components in detail, so that the reader can get a better sense of what actually goes on in ACT and the reasons for it.

Creative Hopelessness

In the first component of ACT, the therapist attempts to establish a condition of "creative hopelessness," in which former "solutions" begin to be seen by the client as problems in themselves. Under such conditions, the client is more open to entirely new courses of action. When all "solutions" are no longer solutions, the client may view the situation as hopeless, but it is a creative condition because now fundamentally new approaches are possible.

Because the client's solutions are nearly all both logical and reasonable, the therapist must behave in ways that are neither. The purpose of this phase of ACT is to confront the social/verbal supports for the client's means–ends formulations (based on these contexts of literality, reason giving, and experiential control). All of the client's efforts at emotional control are explored in detail and in each case the client is asked if, in their experience, this approach truly solved the problem. To some degree, the answer must be "no," or the client would not be in therapy. The therapist emphasizes the great exertion and minimal benefit of efforts to control emotions, thoughts, sensations, memories, and other private events. Because the client has already attempted logical, commonsense solutions, some change beyond ordinary verbal logic is clearly needed. Clients often have an underlying fear that the situation is hopeless. This sense is brought out and affirmed. Within the context in which the client has been working, the therapist agrees that the situation is hopeless. The client's sense of being stuck is also brought out and affirmed.

In behavioral terms, "relief" is a verbally constructed consequence for the client's avoidance repertoires (see Hayes & Wilson, 1993, for a discussion of verbal vs. nonverbal purpose). The purpose of this phase of ACT is motivative. We seek to deestablish "relief" as a valued verbal consequence and thereby increase the probability that other repertoires might emerge, through which other consequences might be contacted.

The following is an actual example from a session early in ACT. It has been slightly edited for clarity and to protect confidentiality:

> Therapist: Right. That doesn't make sense. It's not logical—it's not like that anywhere else in your life. You've worked hard. If you're building something, you work on it, it gets better.
>
> Client: Uh hum—it doesn't make sense—I've thought about it a lot, a lot of long hours just of hard thinking just about this.
>
> Therapist: We have to consider the possibility that what is the most *obvious* thing to you, the *most obvious thing,* is actually not so; the most *clear* thing you have to do in terms of moving ahead, that *that's* actually the problem, not the solution, it's the problem.
>
> Client: My mind stops working here.
>
> Therapist: Good, good—actually that may be helpful. Because again, if what I'm saying right now makes sense, you'd say "oh yeah, that's right," but, if it makes sense that's probably not it. Because you've already done everything that makes sense.

Confusion is used deliberately to prevent the client from intellectualizing and compartmentalizing his or her dilemmas into the same solutions that have already failed. In addition to these paradoxical interventions, many interventions in ACT are nonlinear and metaphorical. This use of metaphor fits fairly well with other, more humanistic uses of metaphor in the clinical setting (see McCurry & Hayes, 1993, for a review), but it differs in that specific ACT-relevant themes are always at the focus of such metaphorical talk.

Trying to Control Private Events as the Problem

In the second component of ACT, therapists target emotional and cognitive control as the core obstacle preventing successful solution of the problems in living faced by the client. As discussed above, by the time the client comes to therapy, he or she has been well trained to view control of private events as important. At this stage of therapy, the therapist gives examples of ways in which we are socialized to exercise such control. Among those emphasized are:

1. We experience direct instruction to control emotion: "stop that crying," "just forget about it," "put it behind you."
2. Significant persons have modeled apparent control of thoughts, emotions, and the like. Adults are often adept at hiding their emotional responses from children. From the perspective of the child, emotional responses appear to be absent: "See, daddy isn't afraid."
3. There is likely to be generalization from situations in which children are encouraged and are successful at controlling environmental events. A repertoire of verbally governed control efforts works very well in dealing with the world, but it works horribly in dealing with one's own history or one's own private events.
4. Emotional control may actually be effective in limited or temporary ways. Distraction, for example, may be an effective strategy for the management of aversive emotional responding when the source of that response is temporary (i.e., an impending dental appointment). However, if the source of the response is persistent or permanent, such as an incest history, these strategies become less tenable both because the temporary effects of distraction wear off, setting the stage for another round of distraction efforts, and because such deliberate avoidance actually increases the behavior regulatory function and thus the psychological importance of the avoided event.

Clients are encouraged to examine their own experience to see if the rule that works in the world of objects ("If you don't like something, figure out how to get rid of it and then get rid of it") has worked in the world of private events. We suggest that a more accurate rule for the arena of private events is "If you aren't willing to have it, then you've got it." Again, metaphor and paradox are used to highlight this dilemma (e.g., see the polygraph metaphor below).

The therapist, in describing the client's experience, elaborates tracks that the client is following, along with the actually contacted, rather than verbally constructed, consequences of following those tracks. In addition, the therapist attempts to undermine the client's pliance with social sanctions to avoid "unpleasant" private events.

Establishing Self as Context Rather Than Content

The third component of ACT helps the client to discriminate the person he or she calls "I," and the problem behavior that the client wants to eliminate. This topic is behaviorally difficult, and space limitations preclude a detailed discussion (see Hayes, 1984, 1987). The essential idea is that verbal training leads to a form of self-awareness that consists of the locus of verbal events, rather than the content of such events. That is, humans learn not only to observe their own actions (one form of self-awareness) but also to do so from a consistent locus or point of view—what is usually called "I."

ACT uses various experiential exercises and metaphors to help this sense of "I" come into focus. Most people can experientially recognize the essential continuity between the "I"s referred to in the statements "I went to first grade" and "I am in therapy now," even if many decades have passed from one to the other and virtually everything in the realm of content has changed.

Other techniques are used at this point in ACT to begin to separate thoughts, emotions, and other private events from the person having them. For example, we ask clients at least temporarily to adopt a particular verbal style in therapy in which the type of verbal event is named, rather than simply stating the content of that event. For example, clients are taught to say "I'm having the thought that I can't go to the mall" (as opposed to simply stating, "I can't go to the mall"), or "I'm having the evaluation that I'm a bad person" (as opposed to "I'm a bad person"). Clients have often attempted to separate themselves from negatively evaluated thoughts and emotions. Here, however, the separation is to increase contact with the private event rather than to decrease it—which has been the client's agenda.

A commonly used ACT metaphor may help to clarify this point. In the metaphor, the client's private events (both

negatively and positively evaluated) are said to be like pieces on a chess board. Within this metaphor, the counterpart for "self as context" is not the chess pieces (the content) but the board itself. If the client is observing events "from piece level," certain pieces on the board may be obscured or altogether invisible depending on their placement on the board. The board, however, is fully in contact with all of the pieces. It is also worth noting that pieces on the board may threaten one another: A white piece such as "I'll get through this" may be threatened by a large black queen shouting "Not in this lifetime!" The board, however, contains and is fully in contact with, but not threatened by, any piece, be it positive or negative. Such metaphors are aimed at altering the verbally established discriminative and motivative context in which control of private events is necessary.

Choosing and Valuing a Direction

In the fourth component of ACT, the therapist supports the client in establishing tracks linked to verbally constructed consequences. Often the goals that a client has for therapy emerge in the context of exploring his or her avoidance repertoires. The client may come to therapy wanting to be rid of depression or anxiety, and that wish will often be explicitly linked to some outcome he or she would choose—if only these problematic thoughts and feelings would abate. So an agoraphobic client might say that he or she needs to get rid of panic so that he or she can really move forward in a career. Or the incest survivor might say that the memories need to stop so that he or she can develop a truly intimate relationship with a spouse. At other times, we may see clients for whom being psychologically present to what they value—and believe that they cannot have—is so aversive that they might pronounce loudly that they want the opposite. It has been our experience in the application of this therapy, however, that as avoidance repertoires subside, valued outcomes emerge.

ACT therapists make several distinctions as they discuss the issue of valuing. Among these is the distinction between valuing as a feeling and valuing as an activity. These two are often thoroughly connected for clients. The verbal support for this connection between private events related to values and active valuing is attacked. The example of valuing a loving relationship with one's spouse provides an instructive example. One's feelings of love may wax and wane across time and situation. To behave lovingly (i.e., respectfully, thoughtfully, etc.) only when one had feelings of love, and to behave in opposite ways when the opposite feelings emerged, would be likely to have problematic effects on a marriage. We ask our clients "Could you behave lovingly, even when you were not feeling loving?" We are careful here to assure the client that we are not talking about faking love—duplicity would hardly characterize loving behavior. What we are attempting to highlight is the client's ability to control some things and not others, and to get the client to exercise control in the areas where control is effective.

The ACT therapist focuses on valuing and choosing as activities, not because the feeling aspect of a client's valuing is unimportant, but because efforts at control are effective in the domain of activities, whereas they are problematic in the areas of thoughts and feelings. In technical terms, valuing as an activity is operant behavior, whereas valuing as a feeling is more likely to be respondent. We further characterize valuing and choosing as activities that are unavoidable. Among the techniques used are questions such as "What do you want your life to stand for?" or "If your epitaph were to be written, based upon what you are doing today, what would it read?" Clients will seldom endorse an epitaph such as "She dedicated her life to avoiding anxiety." We often speak of this active component of valuing as "valuing with your feet." We ask them, "In the direction of what valued end are your feet currently taking you?" Sometimes clients try to avoid choosing a direction, and at those times we point out that choosing not to choose

is also a choice—in the very direct sense of a selection among behavioral alternatives. In such cases, the epitaph might read "He dedicated his life to not choosing."

Letting Go of the Struggle/Embracing Symptoms

In the fifth component of ACT, we encourage clients to begin deliberately experiencing thoughts, feelings, bodily sensations, memories, or behavioral predispositions that, if taken literally, must be avoided. There are many times when self-rules point to ineffective actions. When we encourage clients to give up the struggle with experiential control, we are not asking them to "grin and bear it," or to "tough it out" until their symptoms can be endured. Rather, we are asking the client to lean forward into the "symptoms." We encourage them not only to stop struggling but to embrace the very things that they most dread. This transforms the functional meaning of these events, without changing their form. When a private event no longer occasions avoidance, it begins to lose its importance. The purpose of this component of ACT is to help the client make contact with the shaping impact of directly experienced contingencies present when the second-order agenda of avoiding certain private events is absent.

Many techniques are used in this process, especially "willingness exercises." Avoided private events are brought into the therapy room (via imagery or exercises) and disassembled into component pieces: bodily sensations, thoughts, behavioral predispositions, memories, and so on. In all cases, the goal is not to gain control over them but to experience them without any attempt to modify or escape them.

Commitment and Behavior Change

The sixth goal of ACT is to aid the client in making commitments to action. All forms of psychopathology are associated with ineffective styles of living and behaving. Now that one's history and the resulting elicited thoughts and feelings associated with that history need not be changed first, the focus can be on the client's chosen behavior change. A client at this point in ACT therapy has lost socially sanctioned "reasonable" problematic private events as causes for a failure to follow through. Nor will any attempt be made to punish recalcitrant clients or to trick them into keeping their commitments. Rather, a verbal environment has been created in therapy that allows no logical escape—the central issue is entirely *what works* rather than *what is reasonable even if it doesn't work.* ACT tries to establish a discrimination between self-rules that cannot be followed effectively (i.e., rules of emotional avoidance) and self-rules that can be followed effectively, and if followed will lead to positive consequences (e.g., commitments to behavior change). Promises usually work best when they are kept. This contingency is direct and natural, rather than imposed by the therapist.

The Therapeutic Relationship

The therapeutic relationship is crucial to ACT for several reasons. First, therapists cannot readily train what they do not model. We cannot ask clients to open themselves up to experiencing deliteralized thoughts and feelings undefended without doing so as therapists. Our clients come to us with seemingly insurmountable difficulties. They are in a great deal of pain. No one open to the reality of human misery can be in a therapy room without often feeling sad or anxious. If, from the opening moments of therapy, the therapist can be present to the client's burden and not balk or turn away, the client is already contacting the process and purpose of ACT. This openness on the part of the therapist establishes a powerful and intimate therapeutic alliance.

Second, we consider that given the contingencies that established and maintain emotional avoidance, careful attention to the therapeutic relationship is necessary to the goals of ACT. Emotional avoidance is, in many respects, a social act. The historical context in which emo-

tional avoidance is established begins in early childhood in the context of intensely intimate and dependent interpersonal relationships. Behaviorally speaking, treating behavior in the actual context in which it was learned and continues to occur improves generalization to relevant nontherapy contexts. In a number of respects, an intimate therapeutic relationship may mirror the context in which avoidance repertoires were established in the first place. Many of our clients indicate difficulties in their interpersonal relationships, especially intimate ones. Thus an intimate therapeutic relationship may bring to bear important contextual variables that have been associated with problematic functioning.

Finally, ACT attempts to disrupt problematic verbal control in its paradoxical and metaphorical attacks on the context of literality. If problematic verbal control is interfering with a client's probability of making contact with important nonverbal contingencies, then an attack on this control, if successful, makes the client more susceptible to nonverbal contingencies in the therapeutic interaction. Thus, emotional avoidance on the part of the therapist can be extremely problematic because it would provide a distorted and unhealthy learning experience to a person newly opened up to direct, contingent influences on behavior.

EXAMPLES OF SPECIFIC ACT TECHNIQUES

The ACT protocol is a book-length document (Hayes, Strosahl, & Wilson, in press), comprising over a hundred specific procedures organized around these key principles. Thus, it is not possible to describe ACT in detail here. What follows, however, is a sample of a few specific metaphors, exercises, and other procedures. In each case we will describe what an ACT therapist does or says, and will then attempt briefly to analyze this material behaviorally.

The Polygraph Metaphor

The following is an example of a specific metaphor that is used early in ACT. It is written much as an ACT therapist might deliver it:

> Suppose I had you hooked up to the best polygraph machine that's ever been built. This is a perfect machine, the most sensitive ever made. When you are all wired up to it there is no way you can be aroused or anxious without the machine knowing it. You have a very simple task here: All you have to do is stay relaxed. If you get the least bit anxious, I will know it. But I know you want to try hard and I want to give you an incentive to do so, so I also have a .44 magnum that I'll hold to your head. If you just stay relaxed, I won't blow your brains out, but if you get nervous (and I'll know it because you're wired up to this perfect machine), I'm going to have to kill you. So, just relax! What do you think would happen? Guess what you'd get? Bamm! The tiniest bit of anxiety would be terrifying. You'd be going "Oh, my God! I'm getting anxious! Here it comes!" BAMM! How could it work otherwise?

The purpose of this metaphor is to expose the client to the actual contingencies operating when emotional control is crucial. Metaphors are useful because they are forms of verbal activity that are not rule-like, and thus are unlikely to initiate pliance to please the therapist, but instead present pictures or stories that are more like a verbal approximation of experienced contingencies. In the above metaphor, almost everyone can immediately see, in a commonsense way, the futility of the situation. The ACT therapist may bring this out in high relief, once the client has already contacted the central point:

> Now, you *have* the perfect polygraph machine already hooked up to you: It's you own nervous system. It is better than any machine humans have ever made. You can't really feel something and not have your nervous system in contact with it, almost by definition. And you've got something pointed at you that is more powerful and more threatening than any gun—your own self-esteem, self-worth, and the workability of your life. So you actually are in a situation very much like this. You're holding the gun to your head and saying, "Relax!" So guess what you get?

Deliteralization

The essence of deliteralization is the weakening of the response functions of verbal events that depend upon a strong relational network, and the weakening of the transfer of psychological functions through this relational network. If a language history is a method of training or

(one might say) creating a mind, then deliteralization is a method of blowing a mind or opening a mind.

No amount of deliteralization will eliminate derived relations, nor is this desirable. To make this point, ACT therapists challenge clients to try to hear what is being said in therapy in the same way they would hear words spoken in an unknown foreign language. They can't. The same could be asked of our readers at this moment: Kindly read this sentence we are now writing, but as you read each word in this sentence we challenge you to see each word in the same way that a person sees words in a totally foreign language. Read this sentence but have no idea of what you are reading, or even that there are words. This does not occur, and no ACT client has yet met the challenge. An inherent difference exists between "this is a sentence" and "ouwnm aoi polj slhk." Once a relational repertoire is acquired and applied to the conventional stimuli within a language community, these stimuli are—to a degree—meaningful by virtue of the arbitrarily applicable relations they sustain.

Deliteralization has the goal of weakening—not eliminating—the relational response such that other response forms can coexist with verbal forms. The following exercise can begin to make the point. It was first used by Titchener to demonstrate his "context theory of meaning." It is presented in transcript form to show how it is used in actual sessions.

The "Milk, Milk, Milk" Exercise

Therapist: Let's do a little exercise. I'm going to ask you to say a word. Then you tell me what comes to mind. I want you to say the word, "Milk." Say it once.

Client: Milk.

Therapist: Good. Now what came to mind when you said that?

Client: I have milk at home in the refrigerator.

Therapist: OK. What else. What shows up when we say "milk?"

Client: I picture it.

Therapist: Good. What else?

Client: I can taste it. Sort of.

Therapist: Exactly. And can you feel what it might feel like to drink a glass? Cold. Creamy. Coats your mouth. Goes "glug, glug" as you drink it. Right?

Client: Sure.

Therapist: OK, so let's see if this fits. What shot through your mind were things about actual milk and your experience with milk. All that happened was that we made a strange sound, and lots of these things showed up. Notice that there isn't any milk in this room. None at all. Yet milk was in the room psychologically. You and I were seeing it, tasting it, feeling it—yet only the word was actually here. Now, here is the little exercise, if you're willing to try it. The exercise is a little silly, and so you might feel a little embarrassed doing it, but I am going to do the exercise with you so we can be silly together. What I am asking you to do is to say the word "milk," out loud, rapidly, over and over again and then notice what happens. Are you willing to try it?

Client: I guess so.

Therapist: OK. Let's do it. Say "milk" over and over again.

[As the client does so the ACT therapist does too, periodically interjecting things like: "As fast as you can go until I tell you to stop. Faster! Keep going! Faster!" or "Louder! Keep it up." Between these interjections, the therapist also is repeatedly and loudly saying the word. This continues for at least two or three minutes.]

Therapist: OK, now stop. Did you notice what happened to the psychological aspects of milk that were here a few minutes ago? What happened to actual milk?

Client: After about 40 times it disappeared. All I could hear was the sound. It sounded very strange—in fact, I had a funny feeling that I didn't even know what words I was saying for a few moments. It sounded more like a bird making a sound than a word.

Therapist: Right. The creamy, cold, gluggy stuff just goes away. The *first* time you said it, it was as if milk were actually *here,* in the room. But all that really happened was that you said a *word.* The first time you said it, it was really meaning-full, it was almost solid. But when you said it again and again and again, you began to lose that meaning and the words began to also be just a sound.

Client: I see that, but I don't quite see your point.

Therapist: Well, when you say things to yourself in addition to any meaning behind those words isn't it *also* true that these words are just words? The words are just smoke. There isn't anything solid in them. How is "milk" any different from "I'm bad"?

What we are doing in ACT is training humans to weaken derived relations, and to suspend the "sense-making" effort in strategically important areas. This weakening is what we mean by *deliteralization.* Literality is an automatic process in which the world has functions that emerge from derived stimulus relations. The "milk, milk, milk" exercise creates a context in which sense making is not applicable. After 50 or 100 times of saying something, the next time the word is said, nothing is added by operating on the ba-

sis of a derived relation, and the direct functions of the word (e.g., auditory functions) begin to dominate. This exercise opens up a truth: In addition to any verbal meaning a word may have, it is also just a sound. Just as there is no reason to avoid sounds, there is no necessary reason to avoid even the most negative words, when they are considered to be words.

Language Conventions

Many language conventions are adopted in ACT. The purpose of these conventions is to disentangle the client from the conventional emotional control agenda built into normal locution. A good example is the use of the word "but." This word commonly carries with it an implicit statement about the organization of psychological events. Consider the statement, "I want to go, but I am anxious." This simple statement carries a deep message about the role of feelings in human action. Considered literally, the statement says that although wanting to go would normally lead to going, anxiety contradicts the effect of wanting to go. Going cannot occur with anxiety.

The etymology of the word "but" reveals this dynamic quite clearly. According to the Oxford English Dictionary "but" is from the Old English "be-útan" meaning "on the outside, without." In Middle English this became "bouten" and was gradually phonetically weakened to buten, bute, and thus "but." The Old English word "be-útan" is a combination of "be" (meaning something quite similar to the modern word "be") and "útan" which is a form of "út"—an early form of our modern word "out." Etymologically, "but" means "Be out." It is a call for whatever follows the word to "go away" or else threaten whatever precedes the word. In other words, "but" is a fighting term. It says that two reactions that do exist cannot coexist and still be associated with effective action. One or the other must go. This is a conventional agenda that is directly contradictory to the ACT perspective and more generally to a behavioral view of the role of private events in behavioral regulation.

Here is a language convention drawn from the ACT protocol that we call "Getting Off Our Buts":

> There is another verbal convention I'd like us to adopt in here. This is one that we can use throughout our time together. It has to do with our use of the word "but." This is a word that draws us into the struggle with our thoughts and feelings because it is so commonly associated with explaining behavior on the basis of private events and then pitting one set of private events against another. "But" literally means that what follows the word contradicts what went before the word. It originally came from the words *be out*. When we use it we often say "this private event *be out* that private event. It's literally a call to fight, so it is no wonder it pulls us up into the piece level—into the war zone. [Note to readers: this phrase "piece level" is a reference to the chessboard metaphor described earlier.] Let's consider some examples. Here is one: "I love my husband, but I get so angry with him." Here is another: "I want to go, but I am too anxious." Notice that although both say "this be out that," what the person actually experienced in both cases was two things: this *and* that. The "be out" part isn't a *description* of what happened—it is a *proscription* about how private events should go together. This proscription, however, is exactly what we are trying to back out of. No one *experienced* that two private events have to be resolved—instead two private events were experienced. If the word "but" is replaced by the word "and," it is almost always much more honest. So in our examples, it is much more honest and directly in contact with what actually happened to say "I love my husband *and* I get angry with him" or to say "I want to go *and* I am anxious." So the little convention I'd like us to adopt is to say "and" instead of "but" when we talk. If you try it, you'll see that almost always "and" is more true to your experience. "I want to go *and* I am anxious." Both things are true, the wanting to go and the feeling of anxiety. By calling attention to what we're saying with the use of this little convention, it will help make you more sensitive to one of the ways that people get pulled into the piece-level struggle with themselves. It will help us a lot to get off our buts in here. If you really must say the word "but" at some point, then at least we should say it in a way that emphasizes what we are actually doing. The original form does this pretty well, so if we really have to say "but" we will say it in here as "be out."

This convention greatly opens up the psychological space within which clients and therapists can work. "And" is a descriptive rather than a proscriptive term, and thus can be associated with many courses of action. All possibilities are open. The motivated avoidance of private events that results from their conventional connection to action can be reduced.

Reactions as Barriers

Here is a lengthy edited excerpt from an ACT session transcript in which the client raises barrier after barrier. Instead of these barriers being problems *to* therapeutic work, the ACT therapist treats them as the focus of therapy, as problems being treated *in* the ACT work. This client came in complaining of getting confused and anxious in work settings. He was clinically depressed. The same content—confusion and anxiety—emerged in therapy and was quite distressing there as well. Note how the therapist repeatedly undermines psychological avoidance and turns the issue from the literal content of thoughts and feelings to the unwillingness of the client to experience the psychological content that is immediately present.

Client: It's hard to hang onto what we're going through.

Therapist: So, don't try to.

Client: It's hard not to try to. (chuckle or sigh)

Therapist: So, notice that you have the thought that you want to try to.

Client: OK.

Therapist: And is it OK to think that you want to try to hang onto it? That you need to hang on to it? Is it OK to think that?

Client: I would like to say it's OK, but it's really not. I feel like I should hold on to it. (sigh)

Therapist: OK, but now let's just think that. We've got this thing "I got to hang on to this." Is it OK to think "I've got to hang on to this?"

Client: Sure (sigh and chuckle). No—I guess I'm afraid that I won't get it back if I can't hang on to something.

Therapist: OK, so you have the thought that it won't come back . . . Is it OK to have *those* words, "it won't come back?"

Client: If it didn't come back that wouldn't be OK.

Therapist: But you didn't experience that it didn't come back, right?

Client: Right, just the fear.

Therapist: The fear, right.

Client: Uh huh.

Therapist: And you also experienced some words in your head called "But it wouldn't be OK if it didn't come back."

Client: Right.

Therapist: Is it OK to experience the fact that you have the words called, "but it wouldn't be OK if it didn't come back."

Client: Sure, it's . . . it's OK to have that feeling.

Therapist: Great. Next thought.

Client: But what if it doesn't come back? (giggle) Same thing?

Therapist: That's the next thought. What's here to accept is not what it *says* it is but what you experience it to be. Now what did you actually experience?

Client: The fear that I'm getting confused and it might not ever come back. I might not ever understand.

Therapist: is that OK?

Client: The fear is OK, um. So right, um, when I blanking, when I blank out, I'm stuck behind the words. I couldn't have told you that. There weren't any thoughts there to describe.

Therapist: Isn't that the most *amazing* thing; that's true. The most amazing thing is that when you look at the world from words you don't actually see the words.

Client: Yeah, there weren't any. I was just confused. I get into a place and my mind is just nothing, zero.

Therapist: Go with that.

Client: And that anything we're talking about here in the last hour is gone, it's not—

Therapist: Stay with that.

Client: I can't remember anything.

Therapist: OK. Good!

Client: Yeah. The thought is that my mind is a blank and I can't remember.

Therapist: OK "my mind is blank" um—anything else your mind has to share?

Client: I'm confused.

Therapist: Go with that, go right this moment with that confusion.

Client: I have a blank wall in front of me. Oh—Oh, I had it a second ago. I can't remember what it is.

Therapist: What was *that*? Isn't that a thought?

Client: Yeah. I had the thought that I can't remember what that is.

Therapist: OK.

Client: (19-s pause) I feel like I don't even know what we're talking about right now.

Therapist: OK, good. Is that OK—to feel that?

Client: I need to keep my mind working.

Therapist: OK. So you're now having a *thought* that you have to keep your mind working.

Client: (8-s pause) I'm thinking I should try and get back into the groove of where we were. I'm confused.

Therapist: As you think that, can you let that be a thought—not a thing that you are looking *from,* but as a thing you're looking *at.* Just watch what comes up. (12-s pause)

[Client starts to say something and then shakes his head vigorously as if to "shake it off"]

Therapist: And at *that* moment, just when you grab it, what are you shaking off?

Client: I'm going backwards.

Therapist: You're going backwards. I'm slipping!

Client: And, I'm—struggling extra hard.

Therapist: Great thought.

Client: Because I am going backwards. All I can think about is "I've got to stop it."

Therapist: OK, and as you do that, let *that* be what it is. This is the thought that pushes you around, and not just in here.

Client: I just thought I had to stop it. I have decided it is hopeless, I think.

Therapist: Great! It is hopeless. In a funny kind of way. This is a healthy kind of hopeless. That's where we started, remember?

Client: Oh yeah. I remember. Yes, I do. The first session.

Therapist: Yeah, and that wasn't a trick. That's real; it is hopeless, in a healthy way. So, let's see *what* is hopeless. What are we trying to do here?

Client: Just to look at my thoughts.

Therapist: Right, and all we are really trying to do is just be here with whichever ones come up without struggling with them. Whatever shows up. No particular thing has to show up. Notice how hard that was. Each one kept inviting you to struggle and run away.

Client: Right.

This client was successfully treated by ACT. The core of the work was an abandonment of this obsessive effort to get clear or to remember—an effort that itself created confusion and distress. Ironically, when we accept a feeling of confusion, clarity emerges because it is very clear that we are confused. Clarity, in other words, comes from being present with what is already present, and in this client's case what was present was a string of thoughts about how he needed to be somewhere else. His task in the ACT work was to learn to get present to these thoughts *as thoughts* and to do nothing with them other than to notice them.

OUTCOME AND PROCESS DATA ON ACT

The impact of ACT has been studied with several populations, but the outcome data are still limited. In a randomized clinical trial, ACT was shown to be more effective than Beck's cognitive therapy in the treatment of depression (Zettle, 1984), as measured by standard self-report measures of depression, when presented in a 12-week course of individual therapy. This was an extraordinary finding in its own way, because a major focus of the ACT protocol was to open up the client to feeling depressed feelings without defense, while at the same time doing what needed to be done overtly. Paradoxically, opening up to depressed feelings reduced their intensity and impact. When conducted in a group format, a controlled investigation showed ACT to be essentially equivalent to cognitive therapy on standard depression measures—several of the means were favorable to ACT but not significantly so (Zettle & Raines, 1989). ACT has been used to treat the emotional distress of families with severely physically handicapped children—a situation in which removal of the stressor is not possible (Biglan, 1990). ACT has also been found to be effective with several different anxiety disorders on standard anxiety measures (Hayes, 1987; Hayes, Afari, McCurry, & Wilson, 1990) in studies using either single-case analyses or group designs with pre- and posttreatment measures.

Process research on the change sequence with ACT clients shows results that are very much in line with theoretical expectations. Compared to clients in cognitive therapy, ACT clients being treated for depression show a somewhat slower drop in the *frequency* of self-reported depressive thoughts but show a much more rapid drop in the *believability* of those thoughts (Zettle & Hayes, 1986). This makes sense, because ACT does not focus at all on changing the form or frequency of private events supposedly related to poorer life functioning. The focus instead is entirely on changes in the *function* of these events. Taking a thought literally in a technical sense (as described earlier) is quite similar to what is discussed in lay language as believing a thought. Being able to have a thought without necessarily having to adopt it as a basis for action—without believing it—is a core goal of ACT. Similar differences in process between ACT and cognitive therapy have been shown in other studies (Zettle, 1984; Zettle & Raines, 1989). Also in line with ACT theory, beneficial outcomes have been shown to be related to reductions in emotional avoidance (Khorakiwala, 1991; McCurry, 1991). In these process studies, transcripts of ACT sessions conducted with successful ACT clients were generated. Actual behavioral measures of emotional willingness in session were developed and were reliably applied to client verbalizations presented simultaneously both in audiotape and transcript form. Emotional willingness increased over time, both from the beginning of sessions to the end of sessions and from the beginning of therapy to the

end of therapy (Khorakiwala, 1991). The expansion of the ability to experience private events without avoidance was associated with other key ACT concepts, such as the ability to make and keep commitments.

The empirical analysis of ACT is in its infancy, in part because the treatment development strategy we have followed is unusual and lengthy. We have consciously built ACT in a six-step process involving philosophy, methodology, basic theory and research, applied theory and research, assessment technology, and intervention technology.

In the usual empirical approach to applied intervention techniques, a specific applied problem is defined and a preliminary approach to its amelioration is developed based on existing techniques and data. This approach is tested and refined and then compared to other approaches for the same problem. In the process, additions are made to the intervention and it becomes a treatment package. Group-comparison treatment-outcome studies are then conducted. If it works, a series of package-dismantling studies are conducted to determine the essential components. Finally, possible theoretical mechanisms are examined to determine the means through which clinical impact occurs.

Our approach has been quite different. We have attempted to clarify and extend our philosophical assumptions so that consistent units of analysis and truth criteria tied together our basic and applied work. Our work on functional contextualism was the result (e.g., Hayes, Hayes, & Reese, 1988; Hayes, Hayes, Reese, & Sarbin, 1993). We have tried to develop an inductive and intensive approach to treatment development methodology (e.g., Barlow, Hayes, & Nelson, 1984). We have developed a program of basic behavioral research on how verbal relations change the way contingencies guide behavior (e.g., Hayes, 1989; Hayes & Hayes, 1992). It is in that context that we have developed the beginnings of a theory of psychopathology (e.g., Hayes & Wilson, 1993), assessment devices needed to assess that theory in the applied domain (e.g., Khorakiwala, 1991; McCurry, 1991), and finally an intervention technology (e.g., Kohlenberg, Hayes, & Tsai, 1993) and preliminary tests of its efficacy.

In other words, we argue that much of the current support for the ACT approach can be found in the foundational work that underlies the technique. Following an inductive, technique-building strategy, we are only now to the point at which larger scale outcome studies seem to be worthwhile. We have recently received a grant from the National Institute on Drug Abuse to launch such an effort. Whether ACT will be more helpful than other approaches is not presently clear, but it does seem clear that ACT can have at least some beneficial impact and that it may act according to different processes than other forms of psychotherapy.

CONCLUSION

Behavior analysis has had a very limited impact on adult outpatient psychotherapy work, compared to its dramatic impact on work with children or institutionalized populations. This is largely because the core of adult outpatient therapy is work on the role of human verbal behavior. Behavior therapists have largely "gone cognitive" because of this core, but they have adopted a mechanistic and mentalistic model in part because no other approaches have presented themselves. Contemporary behavior-analytic views of verbal behavior provide a powerful alternative. In the examples above, ACT therapists at times use mentalistic and dualistic terms (e.g., "mind") to communicate most readily with clients, but at every point the underlying rationale and theory is both nonmentalistic and contextualistic. Behavior-analytic psychotherapies provide a new domain within which to explore the applied impact of contemporary behavioral theory.

REFERENCES

Barlow, D. H., Hayes, S. C., & Nelson, R. O. (1984). *The scientist-practitioner: Research and account-*

ability in clinical and educational settings. New York: Pergamon.

Biglan, A. (1990). A contextual approach to treating family distress. In G. Singer & L. Irvin (Eds.), *Supporting the family: Enabling a positive adjustment to children with disabilities* (pp. 299–311). Baltimore: Paul H. Brookes.

Hayes, S. C. (1984). Making sense of spirituality. *Behaviorism, 12,* 99–110.

Hayes, S. C. (1987). A contextual approach to therapeutic change. In N. S. Jacobson (Ed.), *Psychotherapists in clinical practice: Cognitive and behavioral perspectives* (pp. 327–387). New York: Guilford.

Hayes, S. C. (Ed.). (1989). *Rule-governed behavior: Cognition, contingencies, and instructional control.* New York: Plenum.

Hayes, S. C., Afari, N., McCurry, S. M., & Wilson, K. (1990, May). *The efficacy of comprehensive distancing in the treatment of agoraphobia.* Poster presented at the 16th annual convention of the Association for Behavior Analysis, Nashville, TN.

Hayes, S. C., Brownstein, A. J., Devany, J. M., Kohlenberg, B. S., & Shelby, J. (1987). Stimulus equivalence and the symbolic control of behavior. *Mexican Journal of Behavior Analysis, 13,* 361–374.

Hayes, S. C., & Hayes, L. J. (1989). The verbal action of the listener as a basis for rule-governance. In S. C. Hayes (Ed.), *Rule-governed behavior: Cognition, contingencies, and instructional control* (pp. 153–190). New York: Plenum.

Hayes, S. C., & Hayes, L. J. (1992). Verbal relations and the evolution of behavior analysis. *American Psychologist, 47,* 1383–1395.

Hayes, S. C., Hayes, L. J., & Reese, H. W. (1988). Finding the philosophical core: A review of Stephen C. Pepper's *World hypotheses. Journal of the Experimental Analysis of Behavior, 50,* 97–111.

Hayes, S. C., Hayes, L. J., Reese, H. W., & Sarbin, T. R. (Eds.). (1993). *Varieties of scientific contextualism.* Reno, NV: Context Press.

Hayes, S. C., Kohlenberg, B. S., & Hayes, L. J. (1991). Transfer of consequential functions through simple and conditional equivalence classes. *Journal of the Experimental Analysis of Behavior, 56,* 119–137.

Hayes, S. C., Kohlenberg, B. S., & Melancon, S. M. (1989). Avoiding and altering rule control as a strategy of clinical treatment. In S. C. Hayes (Ed.), *Rule-governed behavior: Cognition, contingencies, and instructional control* (pp. 359–385). New York: Plenum.

Hayes, S. C., & Melancon, S. M. (1989). Comprehensive distancing, paradox, and the treatment of emotional avoidance. In M. Ascher (Ed.), *Paradoxical procedures in psychotherapy* (pp. 184–218). New York: Guilford.

Hayes, S. C., Strosahl, K., & Wilson, K. D. (in press). *Acceptance and Commitment Therapy.* New York: Guilford.

Hayes, S. C., & Wilson, K. G. (1993). Some applied implications of a contemporary behavior-analytic account of verbal events. *The Behavior Analyst, 16,* 283–301.

Khorakiwala, D. (1991). *An analysis of the process of client change in a contextual approach to therapy.* Unpublished doctoral dissertation, University of Nevada, Reno.

Kohlenberg, B. S., Hayes, S. C., & Hayes, L. J. (1991). The transfer of contextual control over equivalence classes through equivalence classes: A possible model of social stereotyping. *Journal of the Experimental Analysis of Behavior, 56,* 505–518.

Kohlenberg, R. J., Hayes, S. C., & Tsai, M. (1993). Radical behavioral psychotherapy: Two contemporary examples. *Clinical Psychology Review, 13,* 579–592.

Kohlenberg, R. J., Tsai, M., & Dougher, M. J. (1993). The dimensions of clinical behavior analysis. *The Behavior Analyst, 16,* 271–282.

McCurry, S. M. (1991). *Client metaphor use in a contextual form of therapy.* Unpublished doctoral dissertation, University of Nevada, Reno.

McCurry, S. M., & Hayes, S. C. (1993). Metaphor: A basic and applied analysis. *Clinical Psychology Review, 12,* 763–785.

Sidman, M., & Tailby, W. (1982). Conditional discrimination versus matching to sample: An expansion of the testing paradigm. *Journal of the Experimental Analysis of Behavior, 37,* 5–22.

Wulfert, E., & Hayes, S. C. (1988). The transfer of conditional sequencing through conditional equivalence classes. *Journal of the Experimental Analysis of Behavior, 50,* 125–144.

Zettle, R. D. (1984). *Cognitive therapy of depression: A conceptual and empirical analysis of component and process issues.* Unpublished doctoral dissertation, University of North Carolina at Greensboro.

Zettle, R. D., & Hayes, S. C. (1986). Dysfunctional control by client verbal behavior: The context of reason giving. *The Analysis of Verbal Behavior, 4,* 30–38.

Zettle, R. D., & Raines, J. C. (1989). Group cognitive and contextual therapies in treatment of depression. *Journal of Clinical Psychology, 45,* 438–445.