

Core Processes in Acceptance and Commitment Therapy

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Acceptance and commitment therapy (ACT; Hayes, Strosahl, & Wilson, 1999) has received empirical support in well over 20 randomized controlled trials as a psychotherapeutic treatment for psychological problems as diverse as depression (Zettle & Hayes, 1986; Zettle & Raines, 1989), anxiety (Block, 2002), substance abuse (Hayes, Wilson, Gifford, Bissett, Piasecki, Batten, Byrd, & Gregg, 2004), psychosis (Bach & Hayes, 2002) and the treatment of chronic pain (Dahl, Wilson, & Nilsson, 2004; Robinson, Wicksell, & Olson, 2005). ACT is offered as a modern but thoroughly behavioral approach to the treatment of complex psychological problems — one that honors the strengths of more conventional behavioral treatment strategies, but incorporates a new behavioral conceptualization of language and cognition (Relational Frame Theory, or RFT; Hayes, Barnes-Holmes, & Roche, 2001).

Hayes, Strosahl, Bunting, Twohig and Wilson (2004) and Wilson and Murrell (2004) describe the primary goal of ACT as achieving increased psychological flexibility, defined as 'the ability to contact the present moment more fully as a conscious human being, and to either change or persist when doing so serves valued ends' (Hayes et al., 2004, p. 5). According to the authors, six core processes work to establish increased psychological flexibility: enhancing client acceptance of distressing experiential content; increasing the client's ability to maintain contact with the present moment; establishing a sense of self-as-context in the client; using cognitive defusion strategies to disrupt the effects of problematic cognitions; clarification of client values in multiple domains; and enhancement of the client's effective and committed action toward these valued ends. Breaking

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ACT down to these six core elements appears to do much in capturing the applied essence of the treatment, and in guiding a more detailed and precise exploration of the specific processes that underlay these elements. From the initial stages of ACT's development, a primary emphasis was put on conceptualizing ACT from an internally consistent, coherent theoretical perspective, and on amplifying the feedback loop between clinical applications of ACT and basic experimental findings that bear upon the treatment's strategies and processes. In this spirit, the current chapter offers a functional–contextual conceptualization of these six core ACT components. It is hoped that this effort will both provide a more technically precise picture of core ACT processes than has been previously advanced, and ultimately work to direct more focused research on these processes.

Values

Hayes et al. (1999) offered an initial definition of values as 'verbally construed global desired life consequences' (p. 206). In other words, values are verbal statements about what states of affairs an individual desires to experience throughout his life. This definition sets a valuable guideline for how to most usefully conceptualize values from an ACT perspective, though it somewhat de-emphasizes how values are operationalized within ACT therapy. For practical purposes, values are typically approached by an ACT therapist as process variables (ways of behaving) rather than outcome variables (desired life consequences). For example, if an ACT client stated she valued close, intimate relationships (an outcome), her ACT therapist would help her clarify qualities that are brought to bear within the context of a close relationship — qualities or ways of behaving that she can unilaterally bring to bear in her relationships that increase the likelihood of developing and maintaining close relationships. The reason for this is that (colloquially speaking), while the consequences for any given behavior is ultimately 'out of one's hands', one always has the ability to act unilaterally in a predetermined fashion. Thus, thinking of values as ways of behaving affords more utility to a behavior therapist attempting to shape the increased emission of specific responses in her client.

Valued Living: A Definition

Wilson and Murrell (2004) coined a progressive turn of phrase on *values* (a static noun that implies a focus on outcome) by emphasizing that the ultimate goal of ACT is increasing the frequency of *valued living* (which implies a focus on the process of behaving consistently with one's values). From our perspective, valued living (and, by implication, values) might be technically defined as ways of responding that give increased access to relatively stable, long-term sources of positive non-

verbal and verbal reinforcement. An emphasis on *stable* and *long-term* sources of *positive* reinforcement as an adequate way of defining a value is highlighted for several reasons. First, it is obviously assumed that for any set of consequences (exemplified by personally held values) to maintain behavior instrumental in achieving them, these consequences are by definition reinforcers. However, competent ACT therapists go to great pains to make values-directed behavior come under appetitive rather than aversive control, due to a long experimental behavior-analytic tradition documenting the undesirable side effects of aversive control (see, e.g, Sidman, 2000). In other words, value-driven behavior is not about 'musts' and 'shoulds' and 'have-tos' (which imply escaping negative consequences), but about 'want-tos' (which imply approaching positive consequences). Thus, values reflect sources of positive reinforcement rather than reinforcement broadly defined.

Of course, it is also assumed that many positive reinforcers have a debilitating effect over time. Use of drugs or alcohol is, typically, immediately positively reinforcing, yet chronic consumption of such reinforcers typically deteriorates quality (and duration) of life over time, as well as decreasing one's ability to respond skillfully in a broad range of circumstances. Thus, given that the ACT concept of values appears to reflect a collective goal of shaping client behavior that is both sustainable and minimally under aversive control, values must refer to behaviors that yield access to *stable* and *long-term* sources of positive reinforcement. As what functions as a reinforcer differs according to individual and context, so values assessment in ACT comprises a sort of expanded 'stimulus preference assessment', where each client is free to choose her own reinforcers (values) from an unlimited array, and where prompts referring to more specific contexts (e.g., values domains like family relationships, spirituality and career) aid in the selection of reinforcers within a relatively broad variety of contexts.

Vital Living

Given only the definition of values and valued living proposed in the previous section, it would be appropriate to speculate that values refer to nothing more than the kinds of tangible reinforcers and attention that can be achieved through a basic token economy — that essentially, the ACT construct of values adds nothing to the basic behavior-analytic maxim of 'use positive reinforcement to manage the four basic behavioral functions of acquisition, attention, avoidance and self-stimulation'. However, ACT therapists conducting values clarification with clients seek to help the client identify ways of valued living that confer an increased sense of vitality, meaning and purpose in them. The subjective qualities referred to by these terms are difficult to pin down in precise terms, but greater precision seems

essential for analytic purposes. So, the question arises: from a behavioral perspective, what is meant by terms like 'vitality', 'meaning' and 'purpose'?

Vitality has been defined as 'physical or intellectual vigor', with the term vigor referring to 'strong feeling; enthusiasm or intensity' (*The American Heritage Dictionary of the English Language*, 2000, p. 1919). Thus, it may be assumed that a sense of vitality refers to ways of living that tend to cooccur with or lead to strong, positively valenced emotions.

More to the point, vitality may result from engagement in behaviors most likely to yield positive reinforcement that is associated with feelings of enthusiasm and other strong and positively valenced emotions. Intensity and vigor also imply that such positive consequences are sufficient (and delivered often enough) to control relatively sustained and focused patterns of behavior instrumental in achieving them. It is likely that positive emotions would not be the only positive reinforcer in action. Such emotions might often be linked to reinforcers involving increased social support, greater harmony in relationships, and increased success at work, school and a variety of aspects of life. Verbal processes would undoubtedly be involved in transforming the functions of more mundane or taxing actions linked to vital outcomes. For example, a formative augmental like, 'I'm doing this for my daughter, whom I love dearly and love to see happy', might transform some of the verbal functions of a frustrating race home from work to drop her off at dance practice into an act where positive feelings of love are experienced. ACT is designed, in part, to help clients stop grasping directly at positive feelings and rather focus their attention on behaving in a way that increases vitality. Perhaps ironically, it would seem that letting go of feeling good allows one to act in ways that increases the frequency and intensity of good feelings over time. In other words, one of the goals of ACT is to transform the functions of perhaps mundane and even unpleasant activities into verbally reinforcing events, if such events are deemed to be in frames of coordination or causality with the client's verbally discriminated values.

Like a sense of vitality, a sense of *meaning* and *purpose* in life appears to be often linked to strong positive feelings and a relatively rich schedule of other types of positive reinforcement as well. But a sense of meaning and purpose may be of more exclusively verbal origin than raw vitality. The prefix of *purpose* derives from the Latin prefix *pro-*, which means 'acting in the place of; substituting for' (American Heritage Dictionary, 2000). According to the same source, to *pose*, means 'to put forward or present'. This brief etymological lesson is helpful in illustrating how *purpose* is viewed from a more existential perspective — as putting forward effort in the place of or on behalf of a greater good, or putting forward effort that leads to a collectively positive outcome. Once collective outcomes or

abstract concepts like 'a greater good' are considered, the verbal nature of 'purpose' becomes more clearly apparent. Perhaps one of the reasons a sense of purpose becomes reinforcing is because one is typically socially reinforced for behaving in a constructive manner. A second reason a sense of purpose may be reinforcing is because such behavior is typically framed as 'important', 'worthwhile', 'good', 'necessary' and so forth. More direct reasons for the reinforcing nature of a sense of purpose may present themselves when one is able to link one's actions to the creation of conditions yielding other forms of reinforcement. For example, a sense of purpose may be found in a job because of the positive effects of the salary in contributing to a secure, safe and more harmonious family life. Or, a person's community conservation efforts might directly result in the preservation of a park where he or she engages in many reinforcing activities.

It is worth noting that *purpose* and *meaning* appear to be highly interrelated verbal constructs. An activity framed as *meaningful* may also be likely to be framed as 'important', 'significant', or in coordination with a 'greater plan', 'greater purpose' or 'larger pattern'. Thus, any action that is placed in a frame of coordination with such terms would likely serve to transform the verbal functions of that action in relatively positive ways. Furthermore, social reinforcement might also be expected to follow the emission of behavior framed as *meaningful* or rich with *purpose*. Finally, actions may be framed as meaningful, or serving a greater purpose, in part, simply because they are instrumental in receiving relatively rich and stable rates of positive reinforcement.

In summary, therefore, the concept of vitality in ACT appears to be focused on transforming the verbal functions of 'mundane', 'boring' or 'unpleasant' activities into reinforcing events in and of themselves. Although the transformation effects occur, in part, because such activities participate in relational frames with an individual's values, the term 'vital' only seems appropriate when many of the emotional or eliciting functions of valued activities transfer to the mundane action itself (e.g., when driving one's child to a dance lesson acquires some of the emotional functions of holding the child in a loving embrace).

In contrast, the concepts of purpose and meaning appear to be more focused on the extent to which specific actions lead to highly valued outcomes. In this case, the actions may continue to be discriminated verbally as generally negative, but are emitted simply because they are seen to participate in frames of causality with valued outcomes. Thus the action is not vital, in the sense of producing many of the emotional functions of a valued activity itself, but it does have purpose and meaning because the action facilitates access to highly valued states of affairs (e.g., doing overtime at work may be unpleasant, but has meaning and purpose because it may pay for an extended family holiday).

Values as Motivative and Formative Augmentals

Any discussion of values or valued living from an RFT perspective would be incomplete without considering the concept of augmentals. Hayes et al. (1999) stated that a verbally stated value may function as a motivative or formative augmental (p. 35). Motivative augmenting has been defined briefly as 'behavior due to relational networks that temporarily alter the degree to which previously established consequences function as reinforcers or punishers' (Barnes-Holmes, O'Hora, Roche, Hayes, Bissett, & Lyddy, 2001, p. 110). Consider, for example, the following rhetorical question, 'Even though it's frightening, doesn't a big part of you really want to open up to your partner and tell her exactly how you're feeling to really connect with her, be close to her?' Such a question might serve to increase the likelihood that a client would behave accordingly, given that he has often found psychological intimacy reinforcing in the past. In effect, motivative augmentals are verbal stimuli that increase the likelihood of responses that are instrumental in receiving the reinforcer coordinated with the augmentative stimuli, because those stimuli possess some of the appetitative functions of the actual reinforcing events. In principle, motivative augmentals could also possess aversive stimulus functions, but in general these are avoided in ACT-based therapeutic interactions because such augmentative control tends to be rather coercive (e.g., 'If you don't open up to your wife she may well leave you').

By contrast, formative augmentals 'establish some new event as an important consequence' (Hayes et al., 1999, p. 31), or more technically, refer to 'behavior due to relational networks that establish given consequences as reinforcers or punishers' (Barnes-Holmes et al., 2001, p. 110). Whereas motivative augmentals work to verbally enhance the salience of events that are already reinforcing, formative augmentals seek to establish previously neutral (or even aversive) stimuli as reinforcing. For example, the formative augmental 'discussing unpleasant conflicts with your spouse in a careful and considerate manner will facilitate the closeness you desire' might verbally establish careful and considerate discussion of heated conflicts as reinforcing, even though it was previously aversive. Within the context of values, formative augmentals are verbal stimuli that serve to transform the consequential functions of specific events, such that those events now reinforce responses that are instrumental in working towards values. Without such augmental control, these responses would otherwise be too weak (or absent) to maintain values-consistent action.

Where Do Values Come From?

From an ACT perspective, most (if not all) clients are assumed to enter treatment having already experienced moments of meaning and vitality. As with any other behavior, valuing is assumed (from a behavioral perspective) to be determined by one's current and historical contexts. Multiple sources of control are assumed to exist over a given client's verbal articulation of values. When a client is asked what she values, one potential source of control over the response involves pliance, a form of 'rule-governed behavior under the control of a history of socially mediated reinforcement for coordination between behavior and antecedent verbal stimuli' (Barnes-Holmes, et al., 2001, p. 108). In other words, the client might state she values something simply because the statement of such values has been socially reinforced in the past. Or in other words, the client simply articulates a particular value because she expects the therapist will approve of what she says. Thus, a ply masquerading as a value would refer to behavior(s) that please others from time to time but do not provide increased access to stable long-term sources of positive reinforcement.

A second potential source of control over a client's verbal articulation of a value involves avoidant tracking. A track 'is rule-governed behavior under the control of a history of coordination between the rule and the way the environment is arranged independently of the delivery of the rule' (Barnes-Holmes et al., 2001, p. 109). Thus, avoidant tracking involves responses that function solely to avoid aversive consequences, regardless of how ineffective such responses might be in garnering short- or long-term positive consequences. For example, a client might state that he values professional achievement at work, in part, because it provides 'an excuse' for avoiding dealing with his wife's excessive drinking.

The competent ACT therapist works diligently to eliminate the influence of pliance and avoidant tracking over client valuing, because ACT assumes that simply pleasing others and avoiding discomfort are not the most effective ways of gaining long-term access to stable sources of positive reinforcement. In effect, we assume that clearly articulated values that are not plys or avoidant tracks (a) have been emitted by the client in the past and have been associated with a variety of highly salient reinforcing consequences, (b) have been modeled by others who were seen to receive highly desired forms of reinforcement as a result, (c) mirror forms of behavior emitted toward the client that the client found reinforcing and/or (d) are the result of verbal derivations regarding behavior(s) the client believes may be instrumental in living a life that is meaningful, vital, and/or purposeful.

Commitment

The notion of commitment in ACT appears to refer to multiple phenomena. At a basic level, commitment refers to a verbal statement that one will emit behavior consistent with one or more stated values. From a technical perspective, the act of verbally stating one's intent to move toward a given

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value may involve, in any given instance, the enactment of one or more behavioral processes. First, if made publicly, such a statement may increase the probability that one will act in accordance with that verbal statement, given a long history in which positive consequences ensued following concordance between words and action, and negative consequences ensued following discordance. To a lesser degree, even a private commitment might increase probability of concordant behavior due to the effects of the aforementioned history of differential reinforcement. Second, commitment to a specific values-consistent act (e.g., 'I'm committing to spending this Saturday afternoon playing with my children') may function as a track by specifying behavior within a specific context likely to receive reinforcement. Such verbal commitments may also function as tracks in other useful ways. Often, in ACT, commitments to pursue stated values also involve commitments to accept distressing thoughts and emotions as they arise, and to engage in ACT-specific processes (such as defusion and self-ascontext strategies) to pass effectively through such verbal and emotional barriers. Consider the rather ubiquitous ACT question — 'Given the distinction between you and the stuff you struggle with, are you willing to have that stuff, as it is and not as what it says it is, and do what works in this situation?' (Hayes, 2005). This clearly exemplifies how a commitment of 'yes' to this statement might comprise a track (as well as increase the probability of such behavior).

The word 'commitment' may function as a track within ACT in another fashion. Many clients may view commitment as an all-or-nothing response that is violated and permanently preempted by a failure to honor it. To counter this view, an ACT therapist may engage in strategies intended to help the client view commitment as a moment-to-moment choice that, if not followed through in the last moment, may always be followed through in the next. For example, committed action toward a value may be metaphorically likened to learning how to ride a bicycle. In such a context, falling off the bike does not permanently end the process of riding it. Rather, after a fall, one always has the choice of getting back on the bicycle and riding again. Given the virtual impossibility of *always* acting consistently with a value in the real world, transforming the function of the word 'commitment' may allow an actual commitment to function as a track effective in guiding persistent behavior in the face of setbacks.

Additionally, a commitment made within an ACT context may function as a formative augmental. Given the discussion of formative augmentals in the Values section, above, this should come as no surprise. Since commitments often involve choosing to emit behavior that may not be intrinsically reinforcing but is instrumental in achieving valued aims, linking this

behavior verbally to established reinforcers via formative augmenting may be an effective strategy.

At a more generic level, one might be said to have committed to the pursuit of a stated value if one is actually, in a given moment, acting consistently with that value. This perspective of 'commitment as action' seems very consistent with ACT's relentless focus on the emission of effective values-consistent behavior, regardless of how consistent or inconsistent such behavior is with whatever 'talk' is occurring in the moment. In effect, one is ultimately committed to moving toward a value when one is actually doing so.

Cognitive Defusion

A relatively complete functional contextual conceptualization of cognitive defusion is offered in Blackledge (2007); as such, the process will be described only briefly here. Within ACT therapy, defusion techniques involve a variety of actions designed to expose thoughts simply as thoughts, rather than binding realities. Paradox, mindfulness, cognitive distancing and a variety of other strategies are used to help clients experience problematic thoughts in a new context — one where the debilitating functions of such thoughts are disrupted even when the form (or content) of these thoughts remain the same. Within traditional behavioral psychology, stimuli take on functions through direct contingency processes such as operant and respondent conditioning, and stimulus generalization. A stimulus function essentially describes how the organism in question will respond when presented with the designated stimulus. From an RFT perspective, uniquely verbal operant processes (relational and derived relational responding; see, e.g., Hayes, Barnes-Holmes, & Roche, 2001; or Blackledge, 2003, for an introduction to RFT) can also lead to changes in stimulus functions. While procedures like exposure, extinction and response prevention have been devised to address problematic stimulus functions that arise through direct operant and respondent conditioning, cognitive defusion procedures are intended to alter problematic functions arising through verbal processes.

Thus, from a technical perspective, defusion can be conceptualized as a process in which well-established verbal stimulus transformations are disrupted via the displacement of contextual conditions that control relational responding in general. More research needs to be conducted on what these contextual conditions are, but several hypotheses have been advanced. It would seem these contextual conditions may include a focus on the content of speech or thinking (rather than the process of speaking or thinking), the use of relatively standardized grammar and speech parameters, and the provision of at least intermittent reinforcement for arbitrary verbal stimulus

transformations (i.e., for nonformal stimulus transformations arising through relational/derived relational responding). At moments when conditions such as these are displaced, disruption of established verbal transformations of function via defusion is thought to occur. For example, meditation and mindfulness techniques used in ACT move the client's attention from a focus on the content of individual thoughts to a focus on the process of thinking. When thoughts are repeatedly identified as thinking and viewed from a greater psychological distance, the contextual control typically established over an individual's stream of private verbal behavior is altered and thus the established verbal transformations normally associated with these thoughts are temporarily disrupted. Similarly, when a thought is repeated over and over (as in ACT's 'Milk' exercise), or spoken very quickly or very slowly, contextual parameters regarding rate and frequency of speech may be sufficiently violated, with atypical verbal transformations of function ensuing. As a final example, a systematic and strategic failure on the therapist's part to reinforce a client's established arbitrary/abstract verbal stimulus transformations may effectively lower the rate of reinforcement for these transformations for the time these conditions are in place — such as when a client is repeatedly asked 'why' she cannot perform an action because of excessive anxiety, regardless of the content of each reason provided by the client.

Self-as-Context

The concept of self-as-context is an important one in ACT and RFT. The basic idea is that this type of verbal self emerges primarily through the establishment of three relational frames; I-You, Here-There, and Now-Then. Specifically, ongoing interactions with the verbal community serve to establish relational responding in the young child that allows him or her to verbally discriminate the location of self and others in space and time. Learning to respond to and ask the following types of questions are critical; 'Where are you now?' 'Where were you then?' 'Where was I when you were here?' 'Where were you when I was there?' Across many such questions, the relevant times and locations, and the other persons involved, may differ but the perspective from which the questions are asked and answered remains constant. In other words, each of us is always responding verbally from 'Here, and Now' (about events and others located There and Then). This verbal invariance thus establishes, across the first 3 to 5 years of normal development, a sense of perspective from which all of one's life will be viewed or experienced. This invariant relational, or verbal perspective, is referred to as self-as-context — the context from which an individual's earliest and very last verbal activities will be discriminated. Although many, many things will change during the course of a complete

lifetime, in a very deep sense the 'I' that experiences a first day at school, is the same 'I' that says goodbye to the world while lying on a death-bed, aged 90 years.

Interestingly, the verbally ubiquitous nature of self-as-context can render it almost invisible, psychologically. Insofar as self-as-context (I-Here-Now) is always present in all verbal behavior, it fades appropriately into the background of our everyday verbal activities. Consequently, the verbal content of our lives (e.g., Am I a good or bad person? Am I happy or sad? Am I a failure or a success?) comes to dominate, and in a sense we lose touch with that deep, invariant and constant sense of verbal self that transcends the best and the worst of us. In other words, we fail to appreciate that no matter how wonderful or awful we discriminate our lives to be at any given point in time, all verbal discriminations occur within the wider arena of self-as-context. As such, self-as-context is neither good nor bad, neither hopeful nor despairing, neither loving nor hateful, and neither giving nor selfish. Self-as-context is the uncontaminated verbal 'I-ness' that transcends all the other verbal content in our lives. Put simply, self-ascontext simply is. Critically, from an ACT/RFT perspective, targeting selfas-context in therapy can be very effective.

How might shaping a sense of self-as-context facilitate effective ACT? First, discriminating and framing one's 'self' as distinct from the content of aversive thoughts, feelings and other experiences would be expected to disable problematic transformations of function occurring when one's 'self' is framed in coordination with these same events. Someone with a clearly discriminated self-as-context who experienced guilt and thoughts of inadequacy would frame these stimuli as the product of one's mind and one's history, rather than as equivalent to one's inherent nature, effectively altering the stimulus transformations that would occur in the latter case. Second, framing one's 'self' as the context rather than the content of experiencing might result in the development of effective tracks that correspond to the way contingencies work when defusion is established. For example, a client who had experienced defusion and discriminated a sense of self-as-context several times might think something like 'I know these are just thoughts I'm having right now — I'll just notice them for what they are' when next faced with a series of negatively evaluative thoughts. A bout of thought observation might then ensue, serving to disrupt established verbal transformations of function associated with these thoughts. This points to a third set of helpful functions that discriminating a sense of self-as-context may serve — both serving as a cue for emitting defusive responses and verbally extending the 'lessons learned' from actual incidents of defusion.

As suggested by the previous paragraph, a sizeable overlap between *self-as-context* interventions and *defusion* interventions is evident. In fact, given how defusion has been conceptualized by Hayes et al. (1999) and Blackledge (2007), it would appear that therapeutic operations designed to help the client discriminate her 'self-as-context' or 'observing self' (Hayes et al., 1999) would also serve to instantiate defusion. In other words, when a person is viewing thoughts as thoughts from an observer perspective, this is tantamount to focusing attention on the process versus the content of thinking. Nevertheless, it seems important to distinguish the concept of defusion from self-as-context, because experiencing the former does not necessarily produce the latter.

Self-as-context, once established, is relatively constant in the behavioral stream, whereas cognitive defusion is relatively sporadic. Even when a client is fused with a particular thought, we would assume that this instance of fusion is being discriminated from self-as-context, although at that time the discrimination of self-as-context would be very weak (if self-as-context was completely absent, then the client would be unable to report that he or she was fused or had been fused with a particular thought). If a defusion exercise is then introduced, the client might well experience a transformation of functions for the specific thought, but self-as-context may still remain weak. For example, the client might report that the thought 'I am a bad person' seemed less aversive or threatening following a defusion exercise, but go on to argue 'Okay, I don't feel bad right now, but overall I am a bad person'. If, however, the therapist has worked on shaping up the discrimination of self-as-context, then even the functions of the 'overall bad person' thought may be transformed into 'OK, that's just another thought I can note and observe'.

In summary, therefore, it seems important to distinguish defusion from self-as-context because experiencing an example of the former does not automatically produce the latter. On balance, it is certainly the case that defusion exercises may well serve to help improve the discrimination of self-as-context and, moreover, discriminating self-as-context could certainly be seen as possessing some of the critical properties of any cognitive defusion exercise.

Contact with the Present Moment

An ACT therapist makes a sustained effort to put the client in contact with *current* experiences — sensations, thoughts, feelings, even sensory perceptions that are occurring *right now*. In fact, it is thought that the other five core ACT components are often best implemented when tied directly in to the client's *current* experience, rather than applied to reports of past behavior or verbal speculation about the future. When viewed from a basic behavioral perspective, one of the reasons such synchronicity between this and the other

five ACT components should exist becomes readily apparent. Repeatedly modeling and shaping various ACT-consistent skills *in the moment* might be expected to enhance response generalization. In other words, skills associated with defusion, acceptance and values-consistent action must be applied *in the moment*, as cognitive and affective barriers arise and values-relevant opportunities present themselves. To the extent that these skills have been repeatedly practiced *in the moment* in therapy, the client would be expected to bring them to bear fluently.

Further, sustained attention to physical sensations and other experiences occurring in the present moment may facilitate defusion from problematic verbal stimulus transformations (Blackledge, 2007). Such attention involves an explicit focus on the formal properties of direct experience, rather than on often abstract 'languaging' about direct experience. This, in and of itself, may provide a very important contextual shift that helps to undermine the context of literality. There is a fundamentally different quality to direct experiencing than there is to describing direct experiencing. Feeling the air entering and exiting your body when you breathe, for example, is quite different from thinking about your breathing. Directly experiencing your breath involves the formal stimulus property of tactility. There is a perceptual solidity to the experience that cannot be achieved entirely by thought. In lay terms, the direct experience simply feels more 'real' and 'tangible' than the stimulus products of relational framing. Repeated experiential contact with the discrepancies between language and direct experience may thus help undermine the literal belief that language describes reality, that the transformed stimulus functions connected to words are tangible and immutable. Colloquially, one may then begin recognizing that words are words, and direct experience is something entirely different. This violates an implicit feature of the context of literality, which arguably establishes that, to some extent, words share the tangible and directly perceivable quality of direct experience.

Attending to the present moment may also involve the discrimination of the contingencies currently exerting control over behavior. Once various aspects of such contingencies are discriminated, several beneficial outcomes may unfold. First, such increased awareness of present experience could facilitate maximal consideration of values-consistent behavior that may be relevant to current circumstances. If one is intimately aware of what is happening right now, one's opportunity to select behaviors consistent with relevant values should increase. Second, when problematic verbal processes (e.g., those that block effective values-consistent behavior) are noticed, one can engage in various ACT-consistent responses to address them (such as defusion or acceptance). In other words, increased awareness of distressing thoughts and emotions in the present moment would facilitate emission of defusion and acceptance strategies designed to cut through those thoughts

and emotions. Finally, discrimination of various aspects of the contingencies arising from increased contact with the present moment may facilitate action that is more effective in manipulating those contingencies to one's advantage. Metaphorically speaking, an increased awareness of how the road in front of you is laid out puts you in a better position to successfully navigate its cracks, curves and potholes. Such an increased awareness of the parameters of the present moment would be expected to facilitate the effective emission of 'nuts and bolts' skills involving communication, problem solving, empathy and so forth.

What Consequences Serve to Reinforce Contact With the Present Moment?

Effective movement toward values as a partial result of increased contact with the present moment would be expected to serve as positive reinforcement for this active awareness. Social reinforcement resulting, in part, from increased awareness (via increasingly effective social interaction) could also be a source of potential positive reinforcement. To the extent that increased contact with the present moment facilitates defusion from distressing verbalizations, negative reinforcement resulting from the attenuation or elimination of this aversive stimulation may also play a consequential role. Additionally, increased attention to the present moment might be expected to typically precede both positive and negative reinforcement — and perhaps make one more aware of contingencies preceding punishment so that such contextual antecedents could be more effectively avoided in the future. Through these channels, increased attending to the present moment could become established as a conditioned reinforcer. On a related note, it also seems plausible that punishment might more often result from a relative lack of contact with the present moment, thus working to establish lack of attending to the present as a conditioned punisher for those able to discriminate these contingencies.

Acceptance

From an ACT perspective, the construct of acceptance takes on a more conditional connotation than the word more commonly has. Within ACT, acceptance of psychological distress is only indicated when active avoidance of this distress is impeding more maximally effective movement toward personally held values. Acceptance of all psychological distress at all times is not suggested (unless, of course, a client's value indicates this, as some spiritually oriented values might). Thus, we conceive of acceptance as the act of approaching aversive stimuli, when that act is in an if—then frame with valued outcomes and/or a frame of coordination with valued actions. Conversely, acceptance can be said to involve a lack of verbally based avoidance occurring in the context of valued action.

Creative Hopelessness:The Functional Assessment of Control

A behavioral conceptualization of acceptance would be arguably incomplete without explicit discussion of the construct's antithesis. The opposite of acceptance, of course, involves active attempts to change, attenuate or eliminate aversive thoughts, feelings, physical sensations and other private experiences. The beginning stage of ACT typically involves attempts to draw out a sense of 'creative hopelessness' from the client, where the client's specific experiential avoidance strategies are articulated, and these strategies' short- and long-term effectiveness and effects on movement toward personal values are assessed. This stage in treatment is intended to comprehensively highlight the futility and counterproductivity of client avoidance attempts (taken individually and collectively), and to enhance client motivation to minimize engagement in such experientially avoidant behavior.

From a more precise behavioral perspective, what is the nature and purpose of a creative hopelessness intervention? Creative hopelessness (CH) enjoys a clear precedent in the classic applied behavior-analytic practice of functional assessment, although the CH process in ACT is conducted with some marked differences. In a standard functional assessment, the contingencies surrounding a problematic behavior are systematically assessed and manipulated, and the function(s) of the behavior is then determined. This typically sets the stage for the teaching of more appropriate replacement behaviors (i.e., more appropriate behaviors that serve the same function as the problematic behavior) and/or the rearrangement of behavioral antecedents and consequences to support the emission of less problematic behavior. For example, contextual conditions surrounding a child who aggresses in the classroom might be assessed to see what function this aggressive behavior serves (e.g., does it result in increased attention, or termination of aversive demands placed upon the child, or increased access to a tangible reinforcer?). Assuming this functional assessment indicates the child aggressed solely to avoid demands (such as the teacher asking the child to work on his math), this would set the stage for teaching the child more appropriate means of dampening the aversive aspects of the task (e.g., by asking for help) and for rearranging antecedents and/or consequences to support more appropriate behavior (e.g., by breaking the math work down to smaller component tasks, and/or by withholding reinforcement for aggressive behavior). Thus, traditional functional assessment uses direct observation, in the relevant environment(s), to (a) determine the function of a problematic behavior or behaviors, (b) produce data regarding the frequency with which such behavior receives reinforcement that serves this function and (c) sets the stage for the development of behavior(s) that will more appropriately serve the same function.

Creative hopelessness work is both similar and different to more conventional functional assessment. First, CH seeks only to assess the effects of behaviors that function as experiential avoidance strategies (e.g., the client is specifically asked what he does to 'get on top of' or 'deal with' his distressing thoughts and feelings). Second, initial CH work tends to rely solely on verbal reports of what the client does when distressed, rather than being the sole product of direct observation (though the therapist may observe and address specific instances of client experiential avoidance (EA) in vivo as he comes to know the client better). Third, the ACT therapist is not in a position to rearrange the client's environment outside of (and often inside) the therapy room so that EA behaviors are not reinforced. Rather, therapist and client are talking about the client's perceptions of whether or not the behavior works over the short and long term (i.e., whether each example of an experientially avoidant response receives negative reinforcement over the short term and long term). And fourth, ACT does not provide the client with more 'appropriate' or effective replacement behaviors that serve the same function of EA behaviors. On the contrary, one of the primary intentions of ACT is to minimize the client's emission of EA behaviors (at least those that interfere with effective values-consistent movement).

Thus, CH may be conceptualized as a verbal endeavor intended to accomplish several things. First, it may help the client view a variety of topographically different behaviors as a discrete functional class of behaviors. Once these behaviors have been explicitly tagged and grouped together, it might more effectively allow the client to notice in the moment when he is attempting to experientially avoid, so that he may instead engage in ACT-consistent behaviors involving acceptance, defusion and valuesconsistent movement. Second, CH may result in shaping the client's emission of increasingly accurate tracks regarding the short- and long-term effects of EA behaviors. In other words, undergoing a CH intervention may help the client more clearly articulate what are the actual short- and longterm effects of his EA behaviors. A verbal rule in the form of a track like the following might emerge: 'When I try to avoid my anxiety, it doesn't work and it actually makes the anxiety worse — I should lean into the anxiety and do what matters to me instead'. CH may additionally participate in the creation of increasingly accurate tracks regarding EA behaviors and movement toward/away from values (assuming the impact of EA behaviors on client movement toward values is assessed and discussed). Interestingly, however, since CH is a verbal endeavor (and thus does not involve systematic observation and manipulation of actual EA across contexts), CH may not result in tracks that are fully accurate. Finally, when CH is successful, it might result in the creation of motivative augmentals. That is, when a client is explicitly aware that EA is not working (e.g., thinks it is

pointless to try and fight his anxiety) and is not moving him toward his values, he may be less motivated to try to avoid.

Summary/Conclusion

At the beginning of the current chapter we stated that our purpose here was to offer a functiona–contextual conceptualization of the six core ACT components. Our hope is that this work will add some technical precision to the ACT model, which will thus help to bridge the gap between basic and applied knowledge. We do not pretend that what we offer here is in any way definitive — we have simply provided some examples of how the six ACT components may be usefully, and admittedly sometimes loosely, interpreted from a more basic behavior-analytic perspective. We fully recognize, therefore, that far higher levels of precision will be needed to satisfy the 'hard-nosed' basic experimental researcher. Thus, the current work should be seen as an example of how we might begin to think about the six ACT processes in more basic behavioral terms, rather than as the final word on the issue.

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Teaching ACT: To Whom, Why and How

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Acceptance and commitment therapy (ACT; Hayes, Strosahl, & Wilson, 1999) is an empirically supported treatment that combines acceptance and mindfulness strategies with commitment and behavior change strategies to increase psychological flexibility. Unlike traditional cognitive behavioral therapy (CBT), ACT focuses on changing the function, rather than the form, of private experience. The goal is to change the functional properties of unwanted internal experience by developing a mindful and accepting posture toward thoughts, feelings, memories and sensations. Accepted for what they are (just thoughts, feelings, memories, etc.) rather than what they appear to be (dominating displays that require either obedience to a response rule, or conscious control or suppression), even unwanted private experiences can be effectively integrated into the fabric of daily human experience. In effect, they assume their appropriate role in the overall contextual array that is present as a basic function of self-awareness. To this end, ACT strategies promote development of present moment awareness and an encompassing transcendent self that can help the person separate the 'human from the mind'. Once this distinction is forged, ACT helps the patient get in touch with basic personal values and helps the patient develop committed actions based in those values.

From an ACT perspective, psychological suffering is often caused by experiential avoidance and an overidentification with the content of private experience, both of which act as barriers to acting in ways that promote vitality, purpose and meaning. The FEAR mnemonic summarizes the ACT formula for suffering.