

# Chapter 3

## A Comparison of REBT with Other Cognitive Behavior Therapies



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In a paradigm shifting presentation at the American Psychological Association's conference in Chicago in 1956, Albert Ellis argued for addressing the important role cognition plays in the creation and maintenance of emotional and behavioral disturbance. This presentation then appeared in a 1958 article in the *Journal of General Psychology* titled "Rational Therapy". This marked his official departure from psychoanalysis and earned Ellis the distinction of being the field's first cognitive behavior therapist. His work welded ancient and modern philosophy, especially Stoicism, with clinical strategies and techniques from behavior therapy. Ellis proposed that attitudes, beliefs, and philosophical ideas, what we now commonly refer to as cognitions, were at the core of emotional and behavioral disturbance. Over the next 60 years, Ellis developed, refined, and disseminated the theory and practice of Rational Emotive Behavior Therapy (REBT: Ellis, 1962, 1994). Subsequent to and independent of Ellis's work, Aaron T. Beck published "Thinking and Depression" in the *Archives of General Psychiatry* in 1963. By this time, he also had come to appreciate the important role thinking played in clinical depression. Due to Ellis's pioneering work and Beck's subsequent empirical research, it is fair to consider Ellis and Beck the founding fathers of cognitive behavior therapy (CBT).

This chapter discusses the important differences between REBT and subsequent CBT systems as they are currently portrayed by their originators. In the case of Ellis who is deceased, REBT is discussed from what we believe is the classic version of REBT as depicted in some of his final and major works (e.g., Ellis, 1962, 1994:

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Ellis & Dryden, 1997). We compare REBT with Beck's Cognitive Therapy first (CT: Beck, 1976; Beck & Haigh, 2014) because REBT and CT are foundational to CBT. Then, we examine two popular, more recent therapies, Hayes's Acceptance and Commitment Therapy (ACT: Flaxman, Blackledge, & Bond, 2011; Hayes, Strosahl, & Wilson, 1999) and Linehan's Dialectical Behavior Therapy (DBT: Linehan, 1993; Swales & Heard, 2017). To help the readers understand the similarities and differences between these models, we present three tables. Table 3.1 presents the position of the four models on the goals of therapy. Table 3.2 present the core, primary interventions of each of the four models. Table 3.3 presents the positions of each model on the use of some important therapeutic strategies.

Before proceeding, it is helpful to discuss the names of the therapies being examined. What is now referred to as REBT was initially referred to by Ellis as Rational Therapy (Ellis, 1958), which he later called Rational Emotive Therapy (Ellis, 1962), before eventually settling on Rational Emotive Behavior Therapy (Ellis, 1993). Beck's approach was initially called Cognitive Therapy (Beck, 1976) and more recently he and his daughter, the standard bearers of the approach, refer to it as Cognitive Behavior Therapy. However, the term CBT is presently used as an overriding term to incorporate many approaches along with ACT and DBT in the cognitive behavioral therapeutic tradition in so far as they all theorize how cognition relates to psychopathology. To avoid confusion, when we speak of Beck's model, we will refer to it by its original name Cognitive Therapy, to make clear it is one of several cognitive behavior therapies.

CBT addresses thoughts (i.e. cognitions), and these different models of psychotherapy postulate different types of thoughts and cognitions such as automatic thoughts and deeper level beliefs. When we use the term automatic thoughts, which can be negative or positive, we mean cognitions, which are quick, inferential and evaluative thoughts and images that are situation specific. These cognitions are very much like hypotheses that naturally and often tacitly occur as we make observations that may or may not be true (Ellis & Dryden, 1997). Most importantly, patients might not be aware of these thoughts and the influence they have on their mood. Furthermore, when we refer to beliefs, we wish to denote a particular kind of deeper level cognition that is either an imperative demand that the world, other people, and ourselves must or must not be a certain way, or an extreme evaluative stance a person has about an adversity that leads to self-defeating emotional and behavioral consequences.

Recently, some in the REBT community have argued for the use of the word *attitude* instead of *belief* and maintain it more clearly denotes the fundamental imperative demands and evaluations which REBT draws particular attention to in theory and practice (Dryden, 2016). Nevertheless, beliefs are the traditional term Ellis used and which is more widely found throughout the REBT literature, and therefore throughout this chapter we will use beliefs to refer to these fundamental imperative demands and evaluations.

Over the last decade or more, debates have occurred at professional conferences on the nature of CBT. ACT and DBT (Follette & Hazlett-Stevens, 2016) have declared these models to represent a new third wave of CBT, which are very

**Table 3.1** A comparison of the therapeutic goals of, acceptance and commitment therapy, cognitive therapy, dialectic behavior therapy, and rational emotive behavior therapy

Issue	Shared	REBT	ACT	CT	DBT
Specification of goals of therapy	All models emphasize clear articulation of the therapeutic goals	Goals are set by the client and usually represent symptom reduction but can involve improving wellbeing. Therapist can recommend goals consistent with REBT's 12 aspects of healthy human adjustment. While this is true, it has not traditionally defined the practice of REBT.	Behavioral goals are stated in positive terms. What the client will do, not what the client will not do or stop doing. Changes in emotions are not acceptable goals. What behaviors clients can do when they experience the emotions are the goals. Live a valued life.	Goals are logically related to presenting symptoms (e.g., reduction of anxiety, depression), and are individualized based on the patient's specific symptoms.	Initial goals include the reduction of therapy interfering behaviors. Reduction of serious symptoms such as suicidal behavior. Learning to solve problems and tolerate distress in a healthy way. Living a life worth living.
Symptom reduction	All models allow for symptom reduction when it can be achieved	Symptom reduction is an explicit aim, as is the improvement of well-being.	Symptom reduction for decrease in thoughts and emotions per se are not the explicit aim; the therapy focuses on what behaviors clients do when they experience the symptoms.	Symptom reduction is an explicit aim.	Primarily aims at symptom reduction as this model was created for severe disorders.
Quality of life	All models target improvements in quality of life, which will include success in major life domains	Increasing the quality of life is achieved by a set of behaviors and beliefs that represent 12 aspects of psychological adjustment and adaptive functioning.	Quality of life is a product of the degree to which someone is living a life consistent with his/her values.	Freedom from bothersome thoughts, feelings, and other symptoms is an important component of quality of life.	It aims to reduce symptoms to achieve a life worth living.

**Table 3.2** Core interventions used in REBT, acceptance and commitment therapy, cognitive therapy, and dialectic behavior therapy

Shared aspect across therapies	<p>Relationship-building interventions such as empathy, validation, and reflection</p> <p>Setting specific goals for therapy and for sessions</p> <p>Didactic instruction of skills</p> <p>Experiential learning</p> <p>Summary statements</p> <p>Behavioral interventions, especially exposure to feared stimuli, behavioral activation, problem solving, role playing, and modeling of adaptive behavior</p> <p>Between session homework to rehearse new behaviors</p>
Rational emotive behavioral therapy	<p>Presentation of the A-B-C model (activating event/adversity → inferences → beliefs → affective, behavioral, subsequent inferential and evaluative cognitive consequences)</p> <p>Distinguishing healthy negative emotions from unhealthy negative emotions</p> <p>Setting a goal to replace unhealthy negative emotions with healthy adaptive negative emotions</p> <p>Emphasize and model precision in the use of language linked to general semantic theory. Identification of absolutistic and extreme beliefs</p> <p>Distinguishing irrational from rational beliefs</p> <p>Identification of the presence of demandingness and the derivative irrational beliefs</p> <p>Modification of the rigid and extreme beliefs such as demandingness, awfulizing, discomfort intolerance, and global evaluations of human worth (self or others)</p> <p>Replacing the above irrational beliefs with rational alternatives such as a non-demanding acceptance of self, others, and life, non-awfulizing evaluations of events, belief in the ability to tolerate frustration, and acceptance of the worth of self and others despite flaws and misbehavior</p> <p>Behavioral homework such as behavioral exposure for targeting shame, anxiety, behavioral activation for targeting depression, and assertiveness training and relaxation for targeting anger.</p> <p>Use of humor, force, metaphors, parables, and energy in facilitating attitudinal change</p> <p>Developing the frustration and discomfort tolerance to pursue vitally absorbing interests to provide satisfaction and meaning in life</p>
Cognitive therapy	<p>Presentation of the A-B-C-model (situation → cognitions (inferences and core schema) → affective and behavioral consequences)</p> <p>Identification of negative automatic thoughts</p> <p>Labeling thought errors and cognitive distortions</p> <p>Identification of core beliefs, schemas, and attributional styles</p> <p>Cognitive conceptualization recognizing that early experiences shape core beliefs which, in turn, determine conditional assumptions, intermediary rules, automatic thoughts, and compensatory strategies</p> <p>Modification of dysfunctional cognitions; generation of alternative responses</p> <p>Behavioral experiments to test clients' thoughts/beliefs</p>
Acceptance and commitment therapy	<p>Presentation of the idea that attempts to control internal experiences is more of a problem than a solution</p> <p>Induce a necessary state of hopelessness toward doing “more of the same” (i.e., attempts to control)</p> <p>Increase acceptance of internal experiences (thoughts, feelings, images, sensations, urges)</p> <p>Increase awareness of present moment experiences</p> <p>Increase <i>diffusion</i>, – the ability to step back from thoughts and other internal experiences to allow seeing them as “just thoughts” that are not necessarily true</p> <p>Decrease attachment to <i>conceptualized self</i> (i.e., one’s personal narrative)</p> <p>Clarification of core life values</p> <p>Increased commitment toward values-consistent behavior and a willingness to have difficult internal experiences for the sake of moving toward life values</p>

**Table 3.2** (continued)

Dialectical behavior therapy	Dialectical principles with validation of the patients suffering and negative disturbed emotions while encouraging change Explicitly validating patients' emotional suffering when it is expressed Accepting discomfort and disturbed emotions Discussions concerning change occurs after validation of the patients' psychological pain Emphasis on the primacy of affect Biosocial theory of etiology Use of Zen Principles Acceptance of internal affect experiences Targeting any behavior that interferes with therapy (such as lateness, avoidance of topics, anger at the therapists) first before targeting symptoms Integrative multiple CBT treatments Skills based groups Coaching the client on the telephone to facilitate generalization of coping skills to home environment avert a crisis Providing a forum for psychotherapists to discuss their frustrations and emotions about the patients' progresses and provocative behaviors
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different from the second generation of CBT that includes the models of Ellis and Beck. A major criticism that the third-wave therapies have against the second-generation forms of CBT is the challenging of negative thoughts. We propose that many of these discussions have been aimed at the limitations of the challenging of negative automatic, inferential thoughts and cognitive errors that is at the heart of the cognitive model proposed by Beck's CT. REBT is similar to both ACT and DBT in initially avoiding targeting negative, automatic inferential thoughts and cognitive errors, for different reasons. REBT initially avoids challenging these thoughts because they might not be distorted, that is inconsistent with empirical data, and therefore these thoughts could very well be true. Later in the therapeutic process, the empirical data for or against their validity is considered in REBT, but this is secondary to REBT's initial stance in the therapeutic process which is to accept them as true and to focus on theoretically more critical cognitions, namely, underlying beliefs.

However, ACT avoids challenging automatic thoughts not only because they might be true, but because they are thoughts rather than the things the thoughts are about. ACT avoids interventions focused on thoughts and, instead, directly changes behaviors. DBT avoids challenging automatic thoughts because they could be interpreted by patients as a failure to validate their negative life experiences.

## Differences Among the Theorists

The personality of the theorist has a great influence on the nature of a theory. Each of the four psychotherapies discussed here was formulated by a person whose values and personality influenced the theoretical underpinnings and structure of the approach.

**Table 3.3** A comparison of rational emotive behavior therapy, acceptance & commitment therapy, cognitive therapy, and dialectic behavior therapy on therapeutic strategies

Issue	Shared	REBT	ACT	CT	DBT
Role of meta-disturbance	All models acknowledge that internal experience can trigger more emotional and behavioral disturbance.	Theorizes that disturbance about internal experiences is often present, and therapists always assess the presence of this. However, meta disturbance is not always present. It is targeted first when it is present.	Changing ones disturbed reactions to thoughts, emotions, and images is the primary mechanism of change.	Acknowledges that internal experiences are a possible activating event, however, this idea is not empathized.	Changing ones disturbed reactions to thoughts, emotions, and images is the primary mechanism of change.
The dual nature of human thoughts and emotions.	All models acknowledge that humans have two types of cognitive processes as identified by Kahneman. We can think and behave rationally and irrationally.	Acknowledges that humans experience both irrational and rational beliefs and that rational beliefs can overcome irrational ones.	Acknowledges that humans are prone to distorted negative thinking that be countered by empirical, rational thoughts.	Acknowledges that humans have negative distorted thoughts and dysfunctional beliefs, and people can choose to act in their best interest against these experiences.	The dialectical philosophy acknowledges that one can hold two contradictory ideas. Acknowledging adversity can help one behave adaptively
Role of disputation	All are averse to attempts to directly "control" thoughts. That is to just not have the thoughts.	Disputation, challenging, and examining beliefs is a core strategy. Uses functional, empirical, and logical challenges to dysfunctional beliefs.	Skeptical of disputation and challenging strategies and avoids them. Relies on functional arguments that dysfunctional thoughts do not help one accomplish goals.	Disputation, challenging, and examining thoughts is a core strategy of CT. Primarily relies on empirical tests of the veracity of the clients' thoughts	Disputation is one of several strategies that might be integrated to treatment.

Characteristic treatment of techniques	All interventions focus on the present and future events and experiences.	Uses Socratic questioning, didactic teaching, use of metaphors and humor, role-playing and psychoeducation.	Uses diffusion as the primary intervention. Liberally uses metaphors and experiential exercises.	Socratic questioning is the primary strategy to empirically test negative thoughts.	Uses Socratic questioning, didactic teaching, and experiential exercises.
Therapeutic focus on changing the content of cognitions versus changing the connection between cognitions or emotions and behaviors	All models emphasize the importance of private experiences (thoughts, feelings, memories, etc.) in triggering adaptive and maladaptive behavior.	Focuses mainly on changing the content of private events as precursor to emotional and behavioral change. However, behavioral change can be a goal itself.	Focuses on disentangling private experience from behavior and increasing clients' willingness to experience distressing thoughts/feelings to engage in valued behavior.	Focuses on changing content of private experience as precursor to emotional and behavior change.	Integrates both interventions. Changes the content of cognitions and increases the willingness to experience distressing thoughts/feelings to engage in valued behavior
Role of diffusion	All view cognitions as observable by the self.	Diffusion is a byproduct of cognitive restructuring, but not a primary strategy. Distancing oneself from thoughts can make it easy to see irrationality of the thought.	Diffusion is a core strategy to enhance willingness to promote action.	Diffusion is a byproduct of cognitive restructuring, but not a primary strategy.	Diffusion is a core strategy to enhance willingness and promote action
Identification of alternative adaptive responses	All models identify some new skill or behavior that clients do	Developing alternative rational beliefs are strongly encouraged. They are based on Stoic and other ancient and modern philosophies. Develop healthy negative emotions to replace unhealthy negative emotions	Content of thoughts are not targeted. Clients learn to have a new flexible connection between thoughts and emotions with behaviors consistent with one's values	Encourages the construction of adaptive automatic thoughts that are consistent with empirical reality and are flexible.	Uses and integrates approaches that include changing discomfort tolerance, diffusion, and changing the content of the thoughts.

(continued)

**Table 3.3** (continued)

Issue	Shared	REBT	ACT	CT	DBT
Behavioral strategies e.g., exposure, behavioral activation, assertiveness training	All models use interventions that encourage alternative, adaptive behaviors.	Behavioral strategies are utilized in the service of achieving one's goals. Uses exposure, assertiveness training and behavioral activation. Adaptive behavior is flexible and allows one to reach one's goals	Behavioral strategies utilized to promote psychological flexibility in the context of increased willingness to experience distressing private experiences.	Behavioral strategies utilized in the service of reducing negative affect and achieving one's goals. Uses exposure, assertiveness training, and behavioral activation. Adaptive behavior is flexible and allows one to reach one's goals	Behavioral strategies utilized to promote willingness to experience distressing negative affect and to avoid engaging in symptomatic behaviors.
Emphasis on affective expression	All models seek to facilitate emotional expression as a means to an end.	The depth, permanence, and effectiveness of cognitive restructuring is enhanced when performed in the context of heightened affect.	Therapy encourages the expression of difficult affect as part of the goal of reduction of experiential avoidance, leading to greater psychological flexibility.	The depth, permanence, and effectiveness of cognitive restructuring is theorized to be enhanced when performed in the context of heightened affect.	Therapy encourages the expression of difficult affect as part of the goal of reduction of experiential avoidance, leading to greater psychological flexibility.



<p>Therapeutic relationship</p>	<p>All models emphasize a collaborative relationship. However, they do not see the relationship as curative.</p>	<p>Therapeutic relationship is considered an important element that facilitates therapeutic change but is not curative in itself. Therapists display acceptance of the client and models self-acceptance and high discomfort tolerance.</p>	<p>Strong emphasis on principles applying to therapist &amp; patient alike.</p>	<p>Therapist role is that of a benevolent coach, gently leading toward cognitive change through collaborative empiricism; solicits feedback from client at the conclusion of every session.</p>	<p>Therapeutic relationship is considered an important element that facilitates therapeutic change but is not curative in itself</p>
<p>Aspects of therapists' behavior that influence the therapeutic alliance</p>	<p>All models emphasize accurate empathy with collaboration in the context of acceptance of the client to facilitate change.</p>	<p>Specifically teaches patients about the proposed mechanism of changing and seeks agreement on the tasks of therapy.</p>	<p>Less likely to seek agreement on the task of therapy, as suggesting that certain activities are preferred could lead to rule being rigid adhered to and lead to inflexibility.</p>	<p>Specifically teaches patients about the proposed mechanism of changing and seeks agreement on the tasks of therapy.</p>	<p>Given the invalidating life experience of patients with BPD, emphasis is placed on the validation of the patients' suffering and adverse life experience as crucial and ongoing over the course of treatment.</p>

Ellis worked as a private practitioner over his 60 year clinical career, personally delivered an estimated 180,000 hour-long psychotherapy sessions working with patients most of whom experienced multiple clinical problems and diagnoses (Ellis, 2002). Thus, REBT was cultivated in a real world clinical setting and developed a trans-diagnostic perspective from the outset. As a result, Ellis developed a flexible approach rooted in philosophy, semantics, and scientific thinking. His extensive clinical experience showed him that faulty cognitive processing of empirical reality was insufficient for producing emotional disturbance. Instead, he believed that rigid, absolutistic beliefs, a process he referred to as absolutizing, was at the core of emotional disturbance, which gave rise to extreme evaluative beliefs (awfulizing, LFT, global evaluations). In his view, extreme evaluative beliefs derived from these primary absolutistic beliefs and were secondary to them. Ellis urged patients to adopt scientific, flexible, and non-extreme beliefs after challenging the empirical validity and logical consistency of their absolutistic and extreme beliefs as well as helping them to see the functional impairment resulting from these irrational beliefs. This disputing or reflective process aimed to help patients experience healthy and functional reactions to their adverse realities and facilitate adaptation to them. Ellis found that if distorted automatic thoughts (i.e. cognitive distortions) of reality were present, they were likely the consequence of absolutistic beliefs and extreme evaluations tacitly held and brought to the adversity by the patient. Furthermore, Ellis appreciated how his patients frequently qualified for multiple diagnoses and often faced a grim reality and their thoughts about their difficult circumstances were not necessarily distorted. Consequently, Ellis focused on teaching deeper level, rational beliefs that would foster adaptation, accommodation, and acceptance of reality in response to the harsh situations faced by his patients.

Beck was a clinical scientist and academic who developed CT in the controlled confines of a university laboratory setting. As a result, CT was created with carefully selected patients who fit strict diagnostic criteria. Beck scientifically tested and refined his theory from the application of tightly controlled protocols with closely monitored psychotherapists following treatment manuals. The structured style of CT reflects this discipline to a manualized protocol. Beck's thesis from the outset was that faulty information processing was a foundational variable of all psychopathology. After testing this thesis with depressed patients, Beck focused on anxiety disorders (Beck, Emery, & Greenberg, 1985), substance abuse disorder (Beck, Wright, Newman, & Liese, 1993), personality disorders (Beck, Davis & Freeman et al., 2015), and now schizophrenia (Beck, Rector, Stolar, & Grant, 2008). Additionally, the CT model encompasses deeper level, dysfunctional core beliefs, also known as schema. These dysfunctional core beliefs are more central or fundamental types of cognitions that usually are developed in childhood as a result of ongoing aversive conditions. According to CT theory these core beliefs largely become activated when the person experiences stress and the schema contribute to the creation of distorted automatic thoughts. Over his career, he never abandoned the thesis that faulty information processing leads to psychopathology and a struc-

tured style of conducting psychotherapy, which was necessary for conducting clinical trials.

## **REBT and Cognitive Therapy**

REBT and Cognitive Therapy are the oldest and most widely practiced forms of CBT. They have many similarities. Both rely on the A-B-C model of emotional disturbance. They both attempt to change automatic thoughts and beliefs that theoretically lead to emotional disturbance. In challenging dysfunctional cognitions, both encourage patients to adopt a more rigorous scientific outlook. They both foster behavior change between sessions and both rely on developing alternative adaptive cognitions.

*Which Cognitions Are Targeted First in Therapy?* Perhaps, the most important difference between these two therapies are the cognitions that they target for change at the outset of therapy. Because of its adaptation from an information processing model of psychopathology, CT emphasizes and, therefore, initially targets the negative automatic thoughts and cognitive distortions that are associated with the patients' experience of disturbed emotions. It is only after eight to ten sessions that the targeting of deeper level, dysfunctional cognitions occurs. Although these schema are important, fundamental and deeply held by the patient, they are not initially addressed in CT. It is hypothesized that the therapist does not have sufficient credibility, as well as, sufficient clinical data to accurately identify and then effectively treat such longstanding, fundamental beliefs until eight to ten sessions have been held. Therefore, the patient's attention is guided to the identification of automatic thoughts pertaining to the self, others, the future, and the world and encouraged to learn how to test these thoughts empirically against reality. Thus, CT sees the patients' disturbance as resulting from the inaccurate processing of data pertaining to the self, others, the future, and the world. CT identifies 11 different types of cognitive distortions, the majority of which are variations on logic errors of overgeneralizations formed by invalid inductive reasoning.

It should be noted that when the underlying core schema are eventually identified in CT, the therapist's review of automatic thoughts and discussion with the patient the therapeutic process differs from REBT practice in a couple of important ways. The core beliefs that are addressed often concern themes of helplessness, unloveability, and worthlessness. The CT therapist attempts to help the patient evaluate these beliefs by placing the targeted dysfunctional core belief on a continuum and has the patient compare his or herself to others in regards to the core belief (Padesky, 1994). Patients are encouraged to put into perspective the degree to which they differ on characteristics like incompetence, attractiveness, or their subjective assessment of worth as compared to others. Patients are taught to make finer distinctions when evaluating themselves and reduce bias and to take into account information they may have discounted. Effort is made to help the

patient develop more adaptive core beliefs that structure processing from dichotomous categories, like helpless, unlovable, or worthless categories to more moderate beliefs along a continuum that more closely align with reality, improve mood, and promote behavioral functioning. A REBT therapist, at least initially, would not attempt to help the patient adopt a more moderate assessment of a negative characteristic, but question the imperative demand that the person absolutely must possess the desired characteristic at all. The discussion would take a philosophical turn focusing on the value and validity of unconditional acceptance of the self with or without the desired characteristic. Furthermore, the REBT therapist aims to do this from the outset of therapy instead of waiting for eight to ten sessions before attempting to intervene at the level of core beliefs.

A distinctive feature of REBT is that it initially assumes that cognitions like automatic thoughts to be true and goes on to target for change two types of underlying beliefs. The first, considered to be primary, is the imperative, absolutistic beliefs that the self, others, and life conditions must be a certain way. It also targets three derivative or secondary evaluative beliefs which are theorized to stem from the absolutistic beliefs at the core of disturbance. The first derivative belief being that the situation is extremely negative, beyond 100% bad, and the second derivative belief being that the situation is so bad that the person cannot stand it (referred to as frustration or discomfort intolerance). The third derivative belief targeted is the evaluative beliefs that reflect that the self or another person is worthless or lesser as a person because of how they behave or the characteristics they possess. Beck's work does acknowledge that extreme evaluations are thoughts that can lead to disturbance, and even refers to some distortions using words similar to those found in REBT such as catastrophizing, and should statements. But these types of beliefs are examples of his 11 types of distorted thinking and hold no special place in the theory or therapy.

REBT sees at least five advantages of selectively focusing on the one primary and three derivative beliefs. First, sometimes a patient's automatic thoughts and core beliefs are true and not distortions of reality; therefore, targeting for change the underlying philosophical beliefs associated with negative realities is the better strategy. Second, even if the patients' automatic thoughts and beliefs are a distortion of reality, challenging these thoughts provides a coping mechanism only when the experienced thoughts are false; it fails to teach patients how to cope when reality is exceptionally bad. When the thoughts are consistent with the grim facts of reality the CT therapist resorts to problem solving, but this strategy can be quite limited in very difficult circumstances when the negative reality cannot be readily or ideally changed especially when problem solving largely comes down to choosing between two highly undesirable choices. Third, the disturbed negative extreme beliefs targeted early on in therapy by REBT are likely to produce subsequent distorted negative automatic thoughts and changing these imperative and extreme beliefs is a more fundamental cognitive change achieved earlier in therapy that will help the patient to avoid generating negative distorted thinking in the future. Fourth, the resulting flexible and non-extreme beliefs encouraged by REBT serve to inoculate patients from disturbance when adversity strikes in the

future due to the profound “philosophical” change achieved. Fifth, given that these four beliefs are hypothesized to lie at the core of disturbance and quickly reveals where to focus interventions, the REBT therapist can achieve therapeutic efficiency by identifying and targeting core beliefs for therapeutic change from the outset of therapy.

*The Nature of Emotions* Over the years, Beck theorized that dysfunctional emotions represented exaggerated adaptive responses (Beck & Haigh, 2014). By viewing disturbance this way, Beck placed dysfunctional negative emotions on a continuum at the opposite end of adaptive responding. This view was similar to that of Wolpe’s (1958) model that disturbed emotions were represented by a point along a continuum. This view is similar to the basic universal, evolutionary, and essentialist model of emotions postulated in psychology and has its roots in the work of Aristotle, and Darwin, and presently promoted by Ekman (see Feldman Barrett, Lewis, & Haviland-Jones, 2018). This stands in contrast to REBT’s conceptualization of emotion. REBT posits that negative emotions fall on two continua: one healthy and associated with adaptive, functional behaviors, and one unhealthy associated with dysfunctional, maladaptive behaviors. Recent research has supported REBT’s hypothesis that negative emotions probably fall on two continua, one healthy and adaptive and one unhealthy and maladaptive (Hyland & Boduszek, 2012). Recently, Feldman-Barret (2017) has challenged the traditional theory of emotions and has promoted a more constructivist model consistent with REBT. Her model recognizes that within any category of basic emotions such as fear, sadness, and anger, there are multiple emotions that people can experience and that the more emotions that people can conceptualize, the more adaptive they become.

It should be noted that both CT and REBT theories are interactional whereby they both see thinking, feeling, and behaving as mutually interactional. In both theories conceptualization, assessment, and treatment are influenced by this interactional premise. Although both models agree on the interactional relationships between thinking, feeling, and behaving only REBT argues for two separate continuums of thoughts, feelings, and behaviors whereby one continuum is self-helping and one self-defeating.

*Position on Construction and Responsibility for Human Emotion* Ellis believed that humans construct their thoughts and beliefs, and therefore have choice and a large degree of control over their beliefs and the subsequent emotions they experience in the face of adversity (Ellis, 1958, 1976) despite individual’s differing biological tendencies toward irrationality. This choice makes them largely responsible for their subsequent emotional and behavioral disturbances. Ellis (1958) opposed the idea that humans have virtually no choice in determining their emotional reactions, and he suggested just the opposite by stating, “*The idea that one has virtually no control over one’s emotions and that one cannot help feeling certain things – instead of the idea that one has enormous control over one’s emotions if one chooses to work at controlling them and to practice saying the right kinds of sentences to oneself.*” This REBT theoretical position on choice in emotion is called the Principle

of Emotional Responsibility. Ellis's constructivist philosophical position importantly shapes the message given to the patient. A distinctive feature of REBT is the notion that patients disturb themselves about adversity.

CT does not take an explicit position on cognitive-behavioral-emotive choice and instead emphasizes the role of stimuli that trigger latent schema linked to ongoing adverse conditions of childhood, that determine the content of current automatic thoughts (Beck & Haigh, 2014). CT more heavily emphasizes the role of environmental events in the development of psychopathology. REBT chooses to emphasize the biological predisposition humans have towards irrationality while also emphasizing human choice in resisting this predisposition. This is an important difference. An REBT therapist would likely ask a patient and also emphasize how they are *constructing* their emotional disturbance or *making themselves upset and angry* about the adversity they were facing despite that upset having roots in one's biological nature. Instead, the cognitive therapist would encourage the patient to notice the temporal correlation between external events and their internal reactions (i.e. automatic thoughts, feelings, memories, or physical symptoms) and as well as how this way of responding has a basis in one's personal history of environmental adversity. Although both models teach the patients to help themselves, and both emphasize cognitive change as a path to adjustment, REBT clearly sends the message that acceptance of self-responsibility for one's own emotional disturbance despite its biological underpinnings, is a major therapeutic goal. Whereas a cognitive therapist sets out to teach skills aimed at changing automatic thoughts for responding to dysfunctional emotions and changing behavior, and only later in therapy with more chronic psychiatric conditions tend to address latent schema associated with early childhood trauma, an REBT psychotherapist goes beyond this and from the outset attempts to foster a more profound philosophical change. REBT posits that patients achieve greater emotional health when they appreciate the degree of responsibility they have for their own emotional disturbance in response to any adversity. This insight serves to inoculate the patient from future self-created and self-sustained emotional disturbance by showing them that their emotional destiny is largely determined by their self-created and self-maintained beliefs about adversity and not the adversity itself. Far from holding a position of blaming the patient for their disturbance, patients are shown that their adoption of responsibility for their emotional reactions represents a very self-liberating stance.

*Positions on Self-Esteem* Another major difference between these two therapies is their positions on self-esteem. CT's assumption of faulty or biased information processing of reality leads therapists to focus their efforts on helping patients to correct idiosyncratic distorted thoughts and core beliefs as these relate to the patient's self-concept and corresponding self-esteem. Patients are encouraged to examine the evidence for and against conclusions that lead to reduced self-esteem and an inaccurate self-concept. The CT therapist works to help the patients reframe cognitions and esteem or value themselves even when the data in a particular domain of life suggests failure. This can be accomplished in different ways one of which includes a broadening of and more precisely defining the criteria whereby the self is condition-

ally measured. Patients are encouraged to reduce biased processing of data and to take into account overlooked and undervalued strengths, roles, and accomplishments in order to put the patient's failures and weaknesses into a more balanced perspective in the service of more accurately measuring the self. In short the CT therapist teaches a patient how to more accurately rate himself or herself to improve mood and behavior.

In contrast to the efforts to improve patients' self-esteem through more accurate consideration of the available data, REBT rejects the construct of self-esteem and self-rating (Ellis, 1962, 2005). Ellis argued that it was both unproductive and philosophically invalid to attempt to summate human worth and compare people's ratings of worth according to any set of criteria. REBT posits that humans are properly viewed as living organisms in a constant state of evolution that possess almost an infinite number of traits, behaviors, and cognitions – some of which may be defined as good while others may be defined as bad. Because there is no universally agreed upon set of characteristics for determining human worth and that future behaviors and characteristics of the self are presently unknown, human self-rating and self-valuing at any point prior to death makes no sense and sets the stage for neurotic disturbance.

Ellis pointed out that a considerable amount of emotional disturbance resulted from the patient myopically, prematurely, and arbitrarily rating the self and then devaluing the self for its inadequacies. REBT recognizes that patients could function far more effectively and be motivated by healthy negative emotions if they limited their ratings to various components of the self, such as skills, traits, behaviors, and cognitions in the context of their personal goals. Traits, feelings, behaviors, and the beliefs that facilitate goal attainment can be evaluated as good and defined as rational while the self is not rated and is unconditionally accepted. Ruggiero, Spada, Caselli, and Sassaroli (2018) suggests that CT explores self-knowledge that would present a more accurate and corrective view of the self while REBT strives for self-acceptance regardless of one's flaws.

*Discomfort Disturbance and Biology in Human Disturbance* Ellis revolutionized the psychotherapeutic understanding of maladaptive motivation and behavior when he introduced the construct of discomfort disturbance leading to discomfort anxiety, depression, self-pity, and anger (Ellis, 1979a). His extensive clinical experience revealed that many patients experienced emotional disturbance and held themselves back from goal achievement due to inertia and their unwillingness to tolerate the discomfort inherent in working towards desired goals (Ellis, 1958, 1976). REBT shows patients how to rehabilitate their emotional and behavioral disturbance by learning to tolerate the discomfort of their negative emotions and doing behavioral assignments (Ellis, 1979a, 1979b). This discomfort disturbance and associated emotional and behavioral avoidance led to what Ellis also referred to as secondary emotional disturbance (Ellis & Dryden, 1987, 1997). The initial or primary emotional disturbance a patient experiences becomes an activating event about which the patient then has irrational beliefs that they cannot stand the discomfort of the initial disturbance, which then leads



to the secondary emotional disturbance. This concept of becoming emotionally upset about one's emotional experience is now a common aspect of both ACT and DBT as we discuss below. CT's early protocols did not emphasize secondary emotional disturbance. More recently CT has begun to integrate mindfulness techniques thereby moving more closely towards the position taken by ACT and DBT on secondary disturbance.

What is important to note is that Ellis saw disturbance and associated irrationality as being largely biologically based and innate and to a far lesser extent environmentally taught (Ellis, 1976). Beck takes a considerably more balanced interactional view of the relative importance of adverse environmental life events interacting with genetic factors along with selective allocation of attentional resources in the development of negatively biased, dysfunctional core beliefs (Beck & Haigh, 2014). Ellis defined irrationality as thinking, emoting, and behaving that leads to self-defeating consequences that then undermine the goals of survival and happiness. He cited as evidence for the biological origins of irrationality (1) the ubiquity of human irrationality, (2) the ease with which humans hold rigid beliefs and extreme evaluations towards their desires and values, (3) the observation that the irrationality displayed by humans often goes against the environmental teaching of parents, teachers, and culture, and (4) that humans seem prone to lapse, relapse and replace particular irrationalities with other irrationalities. He also highlighted the biological predisposition of humans to learn and acquire both rational and irrational beliefs and behaviors. Ellis argued that although humans can modify their self-defeating ways, they will never eliminate their propensity for irrational thinking, emoting, and behaving.

The concept of discomfort disturbance and Ellis's emphasis on innate leanings towards irrationality found across all individuals is absent from Beck's writings and theorizing. Beck will acknowledge that negative cognitive biases underpinning depression could result from an individual variation of relatively greater influence of subcortical emotion processing brain regions in conjunction with weakened higher cortex cognitive control (Disner, Beevers, Haigh, & Beck, 2011). However, the concept of an innate discomfort disturbance is not a focus of the theory and practice of CT as it clearly is in Ellis's writings. Although Beck does discuss the identification and targeting of a patient's dysfunctional avoidance strategies, formal recognition of discomfort disturbance as a fundamental aspect of the human condition is absent in CT.

*Theoretical Specificity and Parsimony* REBT is quite specific and parsimonious in its theoretical position of the four rigid and extreme beliefs that underpin emotional disturbance across disorders. Absolutistic beliefs, expressed as absolute "shoulds" and "musts", are theorized to be at the core of emotional disturbance. The primacy of absolutistic, inflexible thinking leading to disturbance is a hallmark of REBT theory and determines the key cognitive target of the therapeutic process (Ellis & Dryden, 1987, 1997). From this hypothesized core, three extreme evaluative beliefs are derived known as awfulizing, discomfort intolerance, and global rating leading to the devaluation of self, others, and life. The parsimony of REBT is unique and



contrasts to the intricate generic cognitive model advanced by Beck & Haigh, 2014. Whereas Beck organizes disorders into modes (a depressive mode, an anxiety mode, etc.) which represent a complex organization of automatic thoughts, beliefs, distortions, and schemas, he also ambitiously attempts to theoretically account for normal adaptations as well as mechanisms of activation and deactivation of schemas. This intricate generic cognitive model serves as a guide for clinicians in conceptualizing and tailoring treatment to the unique features of particular disorders.

*Acceptance as a Therapeutic Process* Over the course of his long clinical career Ellis refined his theory from roughly twelve irrational beliefs underpinning emotional disturbance and came to see the importance of a central absolutizing belief process and how a dogmatic insistence of how reality absolutely should and must be was at the core of emotional disturbance. Consequently, this insight led him to appreciate and emphasize the emotional leverage offered by the development of philosophical acceptance (Ellis, 1957). REBT teaches patients to cultivate three types of unconditional acceptance, namely acceptance of oneself, others, and life. By contrast, CT fails to have any corresponding rational, therapeutic process similar to acceptance, opting instead only for the empirical testing of inferences and core beliefs that might not be supported by empirical data or adaptive, along with teaching problem-solving skills for changing adversity when cognitions are not distorted. Acceptance, first mentioned by REBT in 1957, has become exceptionally popular and is one of the key concepts in many forms of CBT such as ACT and DBT discussed here, as well as in psychotherapy in general.

*Philosophical Foundations* The philosophical underpinnings of both REBT and CT concerning epistemology are important to note. CT's information processing model rests heavily on logical empiricism and logical positivism. The philosopher of science, Popper (1959), appreciated the limitations of strict empirical verification and argued that science derives more knowledge by establishing theories and then attempting to falsify them. Popper (1972) said, "*Philosophers are as free as others to use any method in searching for truth. There is no method peculiar to philosophy*" (cited in Ellis, 1958, preface p. xix). Ellis appreciated Popper's idea that the human mind, both the clinician's and the patient's, naturally made hypotheses; and therefore he took a nomothetic theoretical approach. REBT theory and practice encourages clinicians to take a hypothetico-deductive stance in assessment and treatment resting on the four theorized rigid and extreme beliefs underpinning emotional disturbance. REBT's interventions stem from hypotheses that are confirmed or rejected with empirical data.

CT follows the philosophy of Hume and other British Empiricists (Morris & Brown, 2017) that is disinclined to engage in normative, hypothetico-deductive clinical reasoning. Beck has remained a strict empiricist in theory and practice. The model relies on inductive clinical reasoning and devised clinical protocols taking an inductive and idiographic approach in assessment and treatment. An individual patient's automatic thoughts and cognitive distortions are systematically collected

over the first 8–10 sessions to complete an individualized case conceptualization. This conceptualization includes relevant early life traumas, the patient's conditional rules, intermediary beliefs, and deeper level schemas. REBT in contrast starts to help patients see, from the outset of therapy, that one or more of his four rigid and extreme beliefs about adversity are likely to underpin his self-defeating feelings and behaviors.

The philosophical roots of REBT and CT exert influence over how clinicians assesses for the presence of dysfunctional cognitions and then intervene to help patients evaluate and modify their dysfunctional cognitions. Ellis subscribes to Popper's critical realism and hypothetically-deductively attempts to identify dysfunctional cognitions using REBT theory instead of exclusively relying on inductively identifying dysfunctional cognitions as is advocated in CT (Ellis, 1962). REBT, again following Popper, encourages multiple methods to challenge and falsify rigid and extreme beliefs (Popper, 1959). REBT will use a functional analysis of the impact the targeted belief has on emotional and behavioral functioning, an empirical evaluation to determine if the belief is supported by observable data, and a logical evaluation to determine if the belief is in accord with the principles of logic. The cognitive psychotherapist, by contrast, remains true to empiricism and largely prefers clinical interventions aimed at empirical analysis of the dysfunctional cognitions.

*Disorder Specific Treatment* As previously noted, REBT and CT were nurtured in radically different environments. REBT has its roots in philosophy and clinical practice, while CT has its roots in medicine and academic clinical research. Both are routinely applied to clinical disorders. CT starts with a generic cognitive model and developed disorder specific models that are tailored to the individual patient (Hofmann, Asmundson, & Beck, 2013). These disorder specific models presume that biased processing of reality leads to psychopathology, but they attempt to outline the specific thoughts and beliefs that occur in each disorder that will then give rise to biased information processing. This more case specific treatment plan is developed from the integration of the patient's history, past traumatic incidents, and other experiences, along with compensatory strategies that might have contributed to the development and maintenance of the patient's core beliefs. REBT does not hypothesize that one of the four irrational belief processes are largely responsible for the presence of any given formally recognized disorder. Instead, REBT hypothesizes that the core of all disturbance lies in primary absolutizing regarding a patient's specific goals and values which then gives rise to derivative extreme beliefs that might be more disorder specific. For example, a rigid belief about uncertainty followed by a derivative belief of being unable to bear uncertainty and uncomfortable feelings are hypothesized and assessed when working with anxiety disorders. Absolute beliefs towards the self, others, and/or life, followed by a secondary beliefs of depreciation of the whole self and of life are hypothesized to occur in depressive disorders.

*Applicability to Problems of Everyday Living and Happiness* A major difference between these two therapies is their applicability to the broader issue of life satis-

faction, meaning, and happiness. REBT's philosophical roots allow it to readily assist people who seek psychotherapy with sub-clinical problems of daily living and request help finding greater life satisfaction and meaning. REBT is interested in problems of everyday living and better able to assist with these than CT because Ellis was more interested in problems of modern-day living. Because REBT is rooted in ancient and modern philosophy (Ellis et al., 1982, 1987) it addressed the problems of non-clinical people and can guide people towards happiness and personal fulfillment. Because CT is rooted in a symptom and disorder-focused perspective it has had less focus on problems of everyday living. REBT states that two explicit fundamental values are held by most people—namely survival and enjoyment. However, unique to REBT are twelve subgoals (Ellis et al., 1987) that are consistent with these two fundamental values and constitute a REBT theory of an emotionally healthy human.

Bernard (2011) created a survey on Rationality and Happiness that enables the measurement of this construct in non-clinical samples. Bernard (2011) argued that many people wrongly believe REBT is primarily about emotional misery reduction. Ellis and Becker (1982) emphasized that the secondary goal of REBT is to assist people to self-actualize and grow in ways unique to their personal goals and values. Consistent with this view Martin Seligman has acknowledged that Ellis is the unsung hero of the now popular positive psychology movement in his testimonial for the book “Rationality and the Pursuit of Happiness” (Bernard, 2011). CT focuses on psychopathology and does not readily join in the zeitgeist of facilitating positive psychology.

## **REBT and ACT**

Unlike REBT, but like CT, ACT largely developed within an academic research setting. Hayes was involved in the Functional Analysis of Behavior in the Skinnerian tradition and wanted to apply radical behavioral principles to all aspects of human behavior including psychotherapy (Hayes, Stroschal & Wilson, 1999).

Because language represents such a central aspect of human existence, Hayes first explored the relationship between language and other human behavior. He started where Skinner failed in his analysis of verbal behavior. Hayes spent many years researching language from a behavioral perspective and discovered that human language has some unique characteristics. Humans have the capacity to have shared associations between stimuli to form networks of meaning (Hayes, Barnes-Holmes, & Roche, 2001). Thus, a learned fear to a specific stimulus can have a cascading number of associations of that fear to many of the stimuli to which the first stimuli were connected. Hayes did not work primarily in delivering psychotherapy. Rather he built a conceptual foundation from the science of the functional, contextual analysis of behavior, and the study of language in relational frame theory before developing applications to clinical problems. Because Hayes did not work primarily delivering psychotherapy, in our opinion, the ACT model pays less atten-

tion to the common factors (Wampold & Imel, 2015) of psychotherapy than other forms of CBT.

Hayes rarely references Ellis or REBT in his writings, but he coauthored a paper critically reviewing the conceptual and empirical status of REBT (Zettle & Hayes, 1980), and he did report that one of his first clinical supervisors was trained by Ellis in REBT (Hayes S, 2015, Personal communication). Therefore, it is logical to assume that Hayes had some awareness of REBT theory and practice and this could have influenced the development of ACT.

## Basic Theoretical Differences

In some ways ACT is closer to REBT than any other form of CBT and in some ways it is more different. Below we will review some of these theoretical differences.

*The Role of Language* Both models rely heavily on the study of language, the meaning of words, and their effect on our emotional and behavioral reactions. ACT relies on a revised version of Skinner's (1957) *Verbal Behavior* in relational frame theory (Hayes et al., 2001), while REBT builds on Korzybski's (1933, 1958) General Semantics theory. Both theories stress that the meaning associated with our use of language can be disturbing. Both theories agree that although language is a marvelous tool, humans generate many dysfunctional and invalid ideas from their use of language. A favorite quote by Hayes states, "You do not have to believe everything you think." Although REBT and General Semantics theory stresses examining the possible errors in one's thinking, language, and semantic imprecision before creating new adaptive meaning patterns, ACT believes that therapy helps clients form new more adaptive relations between what they think and feel with how they behave without challenging the validity of the content of one's thoughts.

*Inflexibility as the Core of Disturbance* ACT postulates that rigidity and lack of flexibility as the nature and cause of psychological disturbance. Disturbance is responding consistently and dysfunctionally to one's internal experience, whether they are thoughts or feelings. Adaption involves being able to respond differently to those internal stimuli based on what is one's long term interests. The therapy states that humans are prone to generate much dysfunctional thought content that moves us towards dysfunctional behavior. REBT shares several aspects with this notion that inflexibility is the core of disturbance. First, REBT has always seen rigidity and inflexibility in thinking, feeling, or acting as disturbance. REBT has long advocated that the process of therapy teaches people behave in their long term best interests. Also, REBT postulates that humans can take preferences and escalate them to rigid demands. REBT also states that humans have the biological capacity to create dysfunctional thoughts and emotions.

Hayes' research found that humans easily take guidelines and suggestions for adaptive behavior literally and make them into rigid rules that they perniciously fol-

low thereby becoming rigid. Hayes' (1989) book, *Rule Governed Behavior*, represents an affirmation of Ellis' idea that humans can take preferences and because of the nature of language and the way humans can form relational connections, escalate them into inflexible demands.

Given the focus on language as a central human skill, both REBT and ACT would advocate the use metaphors as a process to teach patients how an idea can be dysfunctional and how to act adaptively.

*The Role of Secondary Disturbance or Discomfort Anxiety* ACT postulates that most human disturbance results from what it calls "experiential avoidance." That is, patients engage in avoidance or escape behaviors that are negatively reinforced (the avoidance makes the discomfort go away) to avoid the discomfort of their emotions or any private experiences. This is similar to the REBT concept of secondary emotional problems and discomfort anxiety (Ellis & Dryden, 1987, 1997). ACT thus targets experiential avoidance by teaching people to evaluate whether it is best to face their fears and teaches them to behave in their long term best interests despite feeling badly. REBT postulates that much human disturbance results from negatively evaluating one's emotions as unbearable. REBT would teach patients to tolerate their dysfunctional emotions, think of them as just uncomfortable, and behave in one's long term best interests. The difference is that ACT sees almost all disturbance as resulting from this process, while REBT sees it as one possible mechanism leading to disturbance or worsening an already existing disturbance. As a result, most ACT sessions and interventions focus on targeting experiential avoidance, while in REBT it would be a possible target.

*The Role of Cognitions in Disturbance* ACT clearly fits in the radical behaviorist camp and does not see cognitions, thoughts, or beliefs as central to disturbance, but as covert behaviors in need of an explanation. Cognitions are not an independent variable that causes emotions or behavior but independent variable to be studied. In ACT, cognitions, emotions, or any private experiences are stimuli that people have learned to differently associate with overt behaviors. The therapy focuses on changing the overt behaviors and their relationship with cognitions and emotions, rather than changing the cognitions or emotions themselves. In fact, ACT teaches patients to stop trying to change their specific cognitions and emotions, to accept these negative internal experiences and at the same time to learn to perform behaviors that will achieve their goals and values (and will be reinforcing) despite the desire to escape these uncomfortable experiences. Thus, therapeutic activities are designed to break the connections between one's dysfunctional thoughts and emotions with dysfunctional behaviors by teaching patients they can have those thoughts and emotions and still behave effectively, i.e. in accordance with their chosen values. Therapeutic activities break the connections or change the relations between patients' dysfunctional thoughts and emotions with their dysfunctional behaviors and teaches patients to perform new behaviors instead. To do this, therapists help patients see that their thoughts are not practically helpful. This is similar to what REBT would consider functional disputing. However, in ACT there would be no attempt to employ philo-

sophical, logical, or empirical challenges to the thoughts. This strategy is similar to what Ellis called behavioral disputation, that is getting patients to act against their irrational beliefs.

*Disputing Versus Defusion* Although ACT does not see cognitive change as necessary for therapeutic change, it goes so far as to suggest that challenging of beliefs can be iatrogenic. It recommends that patients do not try to dispute or challenge the beliefs and that doing so might strengthen the thoughts. The rationale for this idea is epitomized in the “White Bear Effect” (Wegner & Schneider, 2003). This represents the notion that attempts at not experiencing a thought or thought suppression will lead to an increase in the frequency and intensity of the thought one is trying to suppress. If a person tries not to think of a polar bear, he or she will think about it more and more. Empirical or logical challenging of ideas requires that one hold the thought in working memory and examine it. This process keeps the thought or emotion in one’s consciousness, and is proposed to be equivalent of thought suppression. This idea runs counter to the overwhelming research that suggests that interventions designed to challenge thoughts and beliefs in CT (Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012) and REBT (Višlā, Flückiger, Grosse Holtforth, & David, 2016) have a great deal of efficacy. We think that the analogy of challenging thoughts to thought suppression is false. Thought suppression represents attempt to strike the thoughts from one’s mind, which cannot be done if one is truly examining the validity of the thought.

ACT attempts to weaken the connection between thoughts and emotions with adaptive behavior and to avoid strengthening cognitions by using diffusion. In diffusion a person attempts to have a nonjudgmental acceptance attitude towards their thoughts and emotions, recognizing them as nothing more or nothing less than thoughts and emotions, and to avoid any attempt to change or fix them. By being present in the moment and noticing thoughts as “just a thought,” patients can focus on the overt behaviors that the patient can do that are consistent with their goals. Producing such behaviors becomes more probable when people defuse or distance themselves from the experience of the thought rather than struggle to change it. Notice however, that this commonly used phrase in ACT, “Your experiences are JUST thoughts.” conveys that the thoughts in question are unlikely to be true. One might therefore ask if this type of response is in fact a subtle disputation of the thought. We think so.

We question whether the analogy of challenging thoughts as being similar to the White Bear effect and whether labeling challenging beliefs as thought suppression is accurate. As referenced above, much research supports the efficacy of challenging negative automatic thoughts and irrational beliefs and has helped many patients because it gets them to stop believing these thoughts and beliefs. We think diffusion represents an alternative means of changing the believability of thoughts and helps people behave more flexibly and in line with their goals not a replacement for challenging thoughts. Much of the criticism of traditional CBT by ACT-affiliated therapists has been aimed at the challenging of the negative automatic thoughts, and we

are not aware of this criticism being aimed at changing the evaluative or demanding beliefs targeted in REBT. REBT challenges and disputes irrational beliefs and teaches patients to replace them with rational ones. It is therefore important to note that the targets of REBT challenges are the evaluative and imperative beliefs not the veracity of reality statements. ACT has been less specific if its criticism of cognitive challenges apply equally to REBT.

*Acceptance as a Therapeutic Processes* ACT shares with REBT the importance of acceptance. However, our reading of the ACT literature and attending conference presentations indicates that, as with DBT that we will discuss below, acceptance in ACT primarily focuses on accepting internal stimuli of thoughts and emotions. Not much mention is made in the ACT literature on accepting the external reality of the world or the behavior of others. This does not mean that accepting the world and others would be antithetical to ACT; it just does not appear to be as important or explicit as it is in REBT.

*Philosophical Foundations* ACT takes a definitive stand on epistemology and the nature of arguments to determine truth. ACT is based on the pragmatic philosophy of functional contextualism proposed by philosopher Stephen Pepper (1942). This position stresses that the only evidence needed to determine a meaningful conclusion is practicality, or whether an idea works to help one achieve one's goals. REBT uses a three pronged approach to challenge beliefs that includes (1) an idea is logically consistent, (2) is consistent with empirical reality, and (3) it is functional and helps one achieve one's goals. Only the last of these is considered important in functional contextualism. One is left with the thought that truth is totally relative and if something works for the individual, it is true for that person. Thus, a world view that advocated slavery, genocide, or coercion would be considered true if it worked for the individual. We think that functional contextualism is wanting in promoting a moral philosophy.

This focus on practicality is consistent with ACT's pragmatic truth criterion and in contrast to CBT's correspondence truth criterion, which would place more emphasis on challenging the empirical reality of negative automatic thoughts, or to use empirical disputes against demands and musts. It is not important within ACT if an idea corresponds to something called "reality – whatever that means" – but whether it works. Thus, viability, not veracity as understood in a correspondence theory of truth, is the touchstone of evidence.

*Position on Construction and Responsibility in Human Emotion* ACT's foundation in behaviorism would lead it to conclude that people are not responsible for their disturbance. People's history of exposure to stimuli and reinforcers create who we are. Thus, ACT would be opposed to the constructivist philosophy that is present in many aspects of cognitive psychotherapies.

*Specificity and Parsimony of Theory and Disorder-Specific Treatment* Like REBT, ACT is a transdiagnostic therapy that focuses on processes and functional relation-



ships rather than disorders. Hayes argued that significant strides in clinical treatments can only occur when we understand the underlying mechanisms involved in clinical problems. Hayes' research has aimed at understanding basic mechanisms of human disturbance. ACT is a transdiagnostic treatment because the same functional relationships are thought to apply across the problems that are defined as mental disorders. The processes of acceptance and diffusion are always the same because ACT views being disturbed about anything occurs in the same way, namely emotional avoidance and cognitive fusion. The differences in an ACT treatment of different patients would be in the new behaviors that they patient would work to increase. These behaviors are based on the patient's values and goals and thus it is appropriate that they would differ by patient.

*Applicability to Problems of Everyday Living and Happiness* Like REBT and differing from CT, ACT concerns itself with problems of everyday living, personal meaning, and satisfaction. Although less concerned about the pursuit of happiness than the pursuit of personal meaning, ACT argues for embracing the discomfort involved when one tries to live in a way that is consistent with their valued life. The procedures used in ACT to treat disturbance would be the same in pursuing a more meaningful satisfactory life.

Hayes promotes the pursuit of one's values in order to achieve a meaningful life. Unlike Ellis who showed that individuals have a good degree of choice in the beliefs they held, the feelings and behaviors that went along with these beliefs, as well as the paths they took to find happiness and meaning Hayes focused his attention mainly on the behaviors consistent with living a meaningful life. REBT also stresses a fulfilling and meaningful life. ACT does this as well. We think that these theories both distinguish between short term pleasurable goals, being happy in a more enduring way, and long term goals, seeking meaning and fulfillment; and they consider the long term goals of meaning and fulfillment as being more important. They both seem to recognize that achieving fulfillment and meaning in the long-run requires one to do things that are painful or uncomfortable in the short-run.

## **REBT and DBT**

Linehan's (1993) DBT emerged from her work with patients with serious histories of suicidal ideation and attempts, and acts of non-suicidal self-injurious behavior, who often met criteria for Borderline Personality Disorder (BPD). Linehan observed that traditional CBT that targeted negative automatic thoughts and cognitive distortions was often ineffective with these patients and resulted in unacceptably high dropout rates. Linehan noted that these patients found the targeting of negative thoughts invalidating due to the constant focus on change and lack of empathy and failure to acknowledge their degree of pain or the occurrence of negative life events. They often responded to treatment with anger and/or withdrawal. In addition to the



problem of attendance, the severity and quantity of the problems experienced by these patients made it impossible for therapists to adequately address each problem *and* teach the necessary adaptive skills to the patients. Thus, Linehan's goal was to modify the traditional CBT approach. It should be noted that many of these changes had already been incorporated into REBT and represented elements of Eastern and Western philosophy. These included promoting unconditional acceptance and validation of patients (Ellis, 1957). In addition, she developed a system of treatment that includes individual psychotherapy, structured skills training, and strategies that reduced any behaviors that interfered with therapy.

*Philosophical Foundations* DBT developed from the roots of traditional CBT. Linehan hoped to better adapt and enhance CBT for multi-disordered, chronically suicidal patients. Thus, DBT, like REBT, and CT share many characteristics. These include a collaborative approach to therapy, teaching and practicing skills, and assigning homework for patients to complete between sessions. DBT is similar to CT in terms of adherence to a manualized treatment for a specific disorder. Unlike CT however, DBT is designed to treat individuals who have multiple comorbid disorders and places a great emphasis on the teaching and practicing of behavioral skills as a mechanism for change.

At the foundation of DBT is the dialectic philosophy that acknowledges that people can hold two contradictory ideas simultaneously. The central dialectic in DBT is the validation and acceptance of patients and their suffering while simultaneously encouraging them to change (Linehan & Schmidt, 1995). Failure to validate and acknowledge patients' suffering leads to their not believing they are understood, the development of a rupture in the therapeutic alliance, and anger at not being understood. Failure to encourage change results in continued suffering. DBT emphasizes that the synthesis of these opposites lead to replacement of rigid beliefs about the world. This is similar to REBT's view on rigid beliefs being at the core of disturbance – DBT and REBT aim to change rigid patterns of thinking.

Linehan (1993) stated that DBT focuses on dialectics and validation because many patients with BPD felt that the CT strategy of challenging negative automatic thoughts invalidated and denied the difficulty that patients faced and the strong negative emotions they experienced. Validation of their experiences accepts that very negative things have happened to them, that they feel very strong negative emotions, and that these facts are accepted by their therapists and not challenged. The dialectic represents the possibility that one can acknowledge and cope with the very negative events and strong negative feelings. This core strategy of DBT is similar to the REBT strategy of not challenging negative automatic thoughts, but assuming that they are true, acknowledging them, and learning to cope with the negative reality by changing the evaluation and reaction to the harsh reality (Robins & Rosenthal, 2011).

Acceptance in DBT appears to focus more on the acceptance and tolerance of internal experiences such as dysregulated emotions, which is indistinguishable from the REBT concept of secondary disturbance (Ellis & Dryden, 1987, 1997) and tolerance of discomfort (Ellis, 2004). Some differences in acceptance do exist between REBT and DBT. REBT stresses that clients accept both the external world and the

internal world, whereas DBT focuses more on accepting ones' internal experiences. However, the therapeutic stance of validating clients' reality is a form of acceptance of the external world.

As in both REBT and ACT, Linehan's DBT combines elements of Eastern philosophy (Ellis & Dryden, 1987, 1997) with more traditional elements of Western psychotherapy. In DBT, acceptance is achieved largely using mindfulness exercises, in addition to therapeutic strategies that promote validation and acceptance (Dimeff & Linehan, 2001). These philosophies focus on accepting what is and developing coping strategies with the world as we find it, and not attempting to change one's image of the world.

*Position on Constructivism and Responsibility in Human Emotion* Like Ellis, Linehan believed that individuals have the ability to change, grow, and learn to reduce their distress and to improve their quality of life. Like REBT's principle of emotional responsibility, DBT places the onus of change on the patient, but provides patients with a framework, support, and set of skills with which to make these changes. Within the context of a supportive, accepting, though often irreverent, therapist and consultation team, patients are encouraged to participate in skills training and strengthening, and psychotherapy to make changes that are more conducive to leading a meaningful life. Similar to REBT, DBT emphasizes the clients' capacity to change, and by helping them to understand this capacity and instill hope and optimism in their ability to improve their lives.

The means by which DBT accomplishes this, however, are substantially more directive and related to the higher dose than REBT. Whereas Ellis's approach focused on replacing absolute beliefs with rational beliefs, and acceptance of self, others, and life through psychotherapy and practice, DBT works to enhance dialectical thinking as a replacement for absolutistic thinking through a manualized, multi-stage, multi-component approach. DBT postulates that for patients to change and improve their quality of life, they must first learn (through structured skills-training groups and psychotherapy) the strategies with which to regulate their emotions, tolerate distress, and foster functional relationships.

An integral aspect of DBT is an increase in the dose of therapy. The treatment usually involves weekly therapy groups that teach emotional regulation skills, individual psychotherapy sessions, the opportunity for patients to have phone consultations with their therapists concerning how to use the skills, and meetings for the therapists to support each other and discuss their cases. This increase in dose recognizes that DBT was designed for those with serious disorders; inpatient therapy is costly, and usually is not available long enough to achieve noticeable results and the outpatient tradition of once a week sessions is not sufficient. DBT has recognized that the need to a gradation of treatment does and challenges traditional service delivery models.

*Discomfort Disturbance and Biology* Linehan adopted a biosocial theory of psychopathology for BPD. Specifically, DBT is based on the idea that at the core of disturbance is a continuous interplay between biological factors (which manifest in

emotion dysregulation) and an invalidating social environment. This interplay results in each of these factors exacerbating the other and resulting in a patient's extreme emotion dysregulation and self-invalidation (two hallmark aspects of BPD). DBT proposes that patients need to be taught skills in a supportive environment to address and reduce the distressing symptoms that have occurred because of these biosocial interactions. In many ways, this is similar to Ellis's understanding of emotional and behavioral disturbance as stemming from both biological and environmental origins. In both REBT and DBT, the patient learns that experiencing and acknowledging the discomfort associated with both experiencing adversity and learning to cope with it are necessary for change and growth to occur.

DBT does not rely on cognitive interventions to help clients regulate their emotions. It proposes that emotional arousal can remain high and dysregulated without any cognitive distortions due to biological predispositions. DBT teaches clients to use self-soothing techniques. These are behaviors that provide a comforting, nurturing, kind, and gentle way to soothe their strong disturbed negative emotions. Although this use of self-soothing activities is not unique to DBT, it uses these techniques more frequently than other forms of CBT.

*Specificity and Parsimony of Theory* Much like REBT, DBT is specific and parsimonious in its view of the origins and mechanisms of disturbance. Both Ellis and Linehan believe that disturbance stems from the rigid beliefs and thought patterns that one has, and that this is at the core of disorders. REBT is guided by the idea of flexible and non-extreme beliefs replacing absolute and extreme ones. DBT is guided with the idea of flexible, dialectical thinking replacing dichotomous thought patterns. However, whereas REBT was designed for and has been effective in treating a broad range of disorders and severity levels in patients, DBT was designed for and has been implemented in the treatment of a much narrower and more specific scope of disorders. DBT is most applicable to severe and chronic disorders like BPD. Despite the many stages and components that comprise the DBT manualized treatments, both DBT and REBT are parsimonious in their theoretical framework and treatment goals. Both treatments aim to reduce symptoms that are causing an individual distress and interfering with their functioning, in order for them to live a more meaningful and fulfilling life.

*Acceptance as a Therapeutic Process* Similar to REBT and ACT, DBT relies heavily on the concept of acceptance. However, DBT also emphasizes that acceptance of the patient by the therapist is of vital importance in establishing an effective therapeutic alliance, and through this, therapists teach acceptance to the patient. In DBT, as in REBT, the concept of unconditional other-acceptance, the therapist's validation and acceptance of a patient's feelings and experiences is a core element of treatment. A fundamental tenet of DBT is that therapists simultaneously accept and validate patients as they are, while also encouraging their change and progress. DBT uses the term "radical acceptance" for encouraging global acceptance of self, life, and others, much like REBT. Patients are also encouraged to practice acceptance through mindfulness and attending to the present in a non-judgmental way,

similar to Hayes's ACT. Rather than viewing thoughts as just thoughts to be examined as ACT suggests, DBT, and REBT, help patients learn to replace rigid and maladaptive thoughts with more adaptive ones, thereby actively working to change while simultaneously accepting themselves and their situations as they are.

*Disorder Specific Treatment* DBT was initially developed for treatment of individuals with chronic suicidality and extensive trauma histories, which was prominent in patients with a diagnosis of BPD. In this respect, DBT is a disorder-specific therapy. Although much of the research literature on DBT has focused on its effectiveness for treating BPD, DBT has also been shown to be effective in treating eating disorders and substance use disorders. Due largely to its conceptual origins, DBT is more a disorder-specific approach to treatment than REBT is. REBT is a more transdiagnostic approach that is applicable to a wide range of disorders and psychopathology. However, elements of DBT, such as dialectical thinking, assertiveness training, and validation seem to be transdiagnostic constructs that would be helpful in treating a variety of clinical problems and can be readily applied as a transdiagnostic treatment to other serious disorders beyond BPD.

*Dosage of Therapy* DBT differs from all other forms of psychotherapy in proscribing more and intensive interventions over the course of a week. DBT usually includes three aspects of treatment: (1) individual psychotherapy sessions, (2) skills training groups, (3) therapist consultation to help each of them deal with the difficulty in treating such a difficult population. It would be interesting to see the degree to which the dose effect accounts for the success of DBT with difficult to treat patients. Perhaps any form of CBT would be more effective with these patients if they were given in the same dosages. REBT and CT have long advocated skills building activities such as bibliotherapy, the use of homework forms to teach the challenging of beliefs, assertiveness training, problem-solving skills and in vivo activities. They just do not do it in such a systematized way as DBT does.

*Applicability to Problems of Everyday Living and Happiness* REBT and DBT both have the goal of improving a patient's quality of life and improving well-being through symptom reduction. Compared to DBT, REBT is far more readily applicable and able to address the more frequent, common, everyday problems that patients experience. In this way, REBT is perhaps the more versatile of the two therapies, being able to treat patients with severe psychopathology as well as those with sub-clinical symptoms that interfere with life functioning and satisfaction.

## Conclusions

This chapter examined the similarities and differences of the four major CBT therapies popularly practiced today, namely Ellis's REBT, Beck's CT, Hayes's ACT, and Linehan's DBT. With the exception of Ellis's REBT all the subsequent CBT therapies were cultivated in academic environments and were developed

subsequent to REBT. All share many similarities such as having a problem focused therapeutic agenda, emphasis on the role cognition plays in emotional and behavioral disturbance, the development of alternative ways of thinking or behaving to either reduce symptomatology or cope with external reality. Despite the many similarities one should take note of the very important differences, which were discussed throughout this chapter and in our view, gives REBT a distinct advantage over the other CBT approaches that followed in its footsteps. Given the similarities of the other therapies that we identified and discussed in this chapter, as well as the prominence of Ellis and his revolutionary views, these subsequent CBT therapies have inadequately acknowledged the influence of Ellis and the role his pioneering theoretical and clinical work has had. With this said it is also true to add that each has been strongly shaped by the individual who was the leading force in the development of their particular brand of CBT therapy. REBT stands alone in being the product of a master clinician who spent approximately 180,000 hours in face-to-face clinical contact treating patients. The other CBT therapies are somewhat more popular today because of their broader research base, which would be expected from therapies developed by theorists who had academic affiliations and were clinical scientists conducting randomized clinical trials on the therapy they were developing. REBT is the CBT approach that is the most versatile therapy when it comes to addressing both a wide range of emotional and behavioral disorders and problems of daily living. This is to be expected when one takes into consideration that Ellis, more than any of the other theorists, practiced the psychotherapy he carefully refined over the 60 years of a long clinical career.

## References

- Beck, A. T. (1976). *Cognitive therapy and the emotional disorders*. New York, NY: International University Press.
- Beck, A. T., Emery, G., & Greenberg, R. L. (1985). *Anxiety disorders and phobias: A cognitive perspective*. New York, NY: Basic Books.
- Beck, A. T., & Haigh, E. A. P. (2014). Advances in cognitive theory and therapy: The generic cognitive model. *Annual Review of Clinical Psychology*, *10*, 1–24.
- Beck, A. T., Rector, N. A., Stolar, N., & Grant, P. (2008). *Schizophrenia: Cognitive theory. Research, and therapy*. New York, NY: Guilford.
- Beck, A. T., Wright, F., Newman, C., & Liese, B. (1993). *Cognitive therapy of substance abuse*. New York, NY: Guilford.
- Bernard, M. E. (2011). *Rationality and the pursuit of happiness: The legacy of Albert Ellis*. Chichester, UK: Wiley-Blackwell.
- Dimeff, L., & Linehan, M. M. (2001). Dialectical behavior therapy in a nutshell. *The California Psychologist*, *34*(3), 10–13.
- Disner, S. G., Beevers, C. G., Haigh, E. A. P., & Beck, A. T. (2011). Neural mechanisms of the cognitive model of depression. *Nature Reviews Neuroscience*, *12*, 467–477.
- Dryden, W. (2016). *Attitudes in rational emotive behaviour therapy: Components, characteristics and adversity related consequences*. London, UK: Rationality Publications.
- Ellis, A. (1957). *How to live with a neurotic*. New York, NY: Crown Publishers.

- Ellis, A. (1958). Rational psychotherapy. *Journal of General Psychology*, 59, 35–49.
- Ellis, A. (1962). *Reason and emotion in psychotherapy*. New York, NY: Lyle Stuart.
- Ellis, A. (1976). The biological basis of human irrationality. *Journal of Individual Psychology*, 32, 145–168.
- Ellis, A. (1979a). Discomfort anxiety: A new cognitive-behavioral construct (Part 1). *Rational Living*, 14, 3–8.
- Ellis, A. (1979b). The issue of force and energy in behavioral change. *Journal of Contemporary Psychotherapy*, 10(2), 83–97.
- Ellis, A. (1993). Changing rational-emotive therapy (RET) to rational emotive behavior therapy (REBT). *Behavior Therapist*, 16, 257–258.
- Ellis, A. (1994). *Reason and emotion in psychotherapy, revised and updated*. Secaucus, NJ: Carol Publishing Group.
- Ellis, A. (2002). *Overcoming resistance – A rational emotive behavior therapy integrated approach* (2nd ed.). New York: Springer.
- Ellis, A. (2004). *The road to tolerance*. Amherst, NY: Prometheus Books.
- Ellis, A. (2005). *The myth of self-esteem: How REBT can change your life forever*. Amherst, NY: Prometheus Books.
- Ellis, A., & Becker, I. (1982). *A guide to personal happiness*. North Hollywood, CA: Wilshire.
- Ellis, A., & Dryden, W. (1987). *The practice of rational-emotive behavior therapy*. New York, NY: Springer.
- Ellis, A., Young, J., & Lockwood, G. (1987). Cognitive therapy and rational-emotive therapy: A dialogue. *Journal of Cognitive Psychotherapy*, 1(4), 137–187.
- Ellis, A., & Dryden, W. (1997). *The practice of rational emotive behavior therapy* (2nd ed.). New York, NY: Springer.
- Feldman-Barret, L. (2017). *How emotions are made*. New York: Houghton Mifflin Harcourt.
- Feldman Barrett, L., Lewis, M., & Haviland-Jones, J. M. (2018). *Handbook of emotions* (4th ed.). New York, NY: Guilford.
- Flaxman, P. E., Blackledge, J. T., & Bond, F. W. (2011). *Acceptance and commitment therapy: The CBT distinctive features series*. Oxon, UK: Routledge.
- Follette, V. M., & Hazlett-Stevens, H. (2016). Mindfulness and acceptance therapies (pp. 273–302). In J. C. Norcross, G. R. VandenBos, & D. F. Freedheim (Eds.), *The handbook of clinical psychology. II of V: Theory and research*. Washington, DC: American Psychological Association. The Associate Editor for this volume II is Bunmi O. Olatunji.
- Hayes, S. (Ed.). (1989). *Rule governed behavior*. New York, NY: Plenum.
- Hayes, S.C., Strosahl, K. D., Wilson, K. G. (1999). *Acceptance and commitment therapy: An experiential approach to behavior change*. New York, NY: Guilford Press.
- Hayes, S. C., Barnes-Holmes, D., & Roche, B. (Eds.). (2001). *Relational frame theory: A post-Skinnerian account of language and cognition*. New York, NY: Plenum.
- Hofmann, S., Asnaani, A., Vonk, I., Sawyer, A., & Fang, A. (2012). The efficacy of cognitive behavioral therapy: A review of meta-analyses. *Cognitive Therapy & Research*, 36(5), 427–440. <https://doi.org/10.1007/s10608-012-9476-1>
- Hofmann, S. G., Asmundson, G. J., & Beck, A. T. (2013). The science of cognitive therapy. *Behavior Therapy*, 44(2), 199–212. <https://doi.org/10.1016/j.beth.2009.01.007>
- Hyland, P., & Boduszek, D. (2012). Resolving a difference between cognitive therapy and rational emotive behaviour therapy: Towards the development of an integrated CBT model of psychopathology. *Mental Health Review Journal*, 17(2), 104–116.
- Korzybski, A. (1958). *Science and sanity: An introduction to non-Aristotelian systems and general semantics* (4th ed.). Lakeville, CT: The International Non-Aristotelian Library Publishing Co. (now part of the I. G. S., Englewood, NJ).
- Korzybski, A. (1933). *Science and sanity*. San Francisco, CA: the International Society of General Semantics.

- Linehan, M. M. (1993). *Cognitive-behavioral therapy of borderline personality disorders*. New York, NY: Guilford Press.
- Linehan, M. M., & Schmidt, H. (1995). The dialectics of effective treatment of borderline personality disorder. In W. T. O'Donohue & L. Krasner (Eds.), *Theories of behavior therapy: Exploring behavior change* (pp. 553–584). Washington, DC: American Psychological Association.
- Morris, W. E., & Brown, C. R. (2017, Spring). David Hume. In E. N. Zalta (Ed.), *The Stanford encyclopedia of philosophy* (Spring 2017 Edition). <https://plato.stanford.edu/cgi-bin/encyclopedia/archinfo.cgi?entry=hume>
- Padesky, C. (1994). Schema change processes in cognitive therapy. *Clinical Psychology and Psychotherapy*, 1(5), 267–278.
- Pepper, S. C. (1942). *World hypotheses: A study in evidence*. Berkeley, CA: University of California Press.
- Popper, K. (1959). *The logic of scientific discovery*. New York, NY: Harper & Bros.
- Popper, K. (1972). *Objective knowledge; an evolutionary approach*. Oxford, UK: Clarendon Press.
- Ruggiero, G. M., Spada, M. M., Caselli, G., & Sassaroli, S. (2018). A historical and theoretical review of cognitive behavioral therapies: From structural self-knowledge to functional processes. *Journal of Rational Emotive and Cognitive Behavior Therapies*, 36, 378–403.
- Skinner, B. F. (1957). *Verbal behavior*. New York, NY: Prentice Hall.
- Swales, M. A., & Heard, H. L. (2017). *Dialectical behavior therapy* (The CBT distinctive features series) (2nd ed.). Oxon, UK: Routledge.
- Višlā, A., Flückiger, C., Grosse Holtforth, M., & David, D. (2016). Irrational beliefs and psychological distress: A meta-analysis. *Psychotherapy and Psychosomatics*, 85(1), 8–15. <https://doi.org/10.1159/000441231>
- Wampold, B. E., & Imel, Z. E. (2015). *The great psychotherapy debate: The evidence for what makes psychotherapy work*, 2nd ed. New York, NY: Routledge/Taylor & Francis Group.
- Wegner, D. M., & Schneider, D. J. (2003). The white bear story. *Psychological Inquiry*, 14, 326–329. [https://doi.org/10.1207/s15327965pli1403&4\\_24](https://doi.org/10.1207/s15327965pli1403&4_24)
- Wolpe, J. (1958). *Psychotherapy by reciprocal inhibition*. Palo Alto, CA: Stanford University.
- Zettle, R., & Hayes, S. (1980). Conceptual and empirical status of rational emotive therapy. *Progress in Behavior Modification*, 9, 125–166.