Radically Open-Dialectical Behavior Therapy for Disorders of Over-Control: Signaling Matters

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Radically Open-Dialectical Behavior Therapy (RO-DBT) is a transdiagnostic treatment designed to address a spectrum of difficult-to-treat disorders sharing similar phenotypic and genotypic features associated with maladaptive over-control—such as anorexia nervosa, chronic depression, and obsessive compulsive personality disorder. Over-control has been linked to social isolation, aloof and distant relationships, cognitive rigidity, high detailed-focused processing, risk aversion, strong needs for structure, inhibited emotional expression, and hyper-perfectionism. While resting on the dialectical underpinnings of standard DBT, the therapeutic strategies, core skills, and theoretical perspectives in RO-DBT often substantially differ. For example, RO-DBT contends that emotional loneliness secondary to low openness and social-signaling deficits represents the core problem of over-control, not emotion dysregulation. RO-DBT also significantly differs from other treatment approaches, most notably by linking the communicative functions of emotional expression to the formation of close social bonds and via skills targeting social-signaling and changing neurophysiological arousal. The aim of this paper is to provide a brief overview of the core theoretical principles and unique treatment strategies underlying RO-DBT.

KEYWORDS: Radical openness; dialectical behavior therapy; social signaling; psychological flexibility; emotion inhibition

INTRODUCTION

Until recently, the majority of treatment interventions targeting personality disorders (PDs), including standard dialectical behavior therapy

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(DBT), have tended to target borderline personality disorder (BPD)—a disorder characterized by low inhibitory control and dysregulated/impulsive behavior (see Dixon-Gordon, Turner, & Chapman, 2011 for review). In contrast, radically open-dialectical behavior therapy (RO-DBT), a new treatment approach with strong roots in standard DBT, targets a spectrum of disorders sharing similar genotypic and phenotypic features linked to excessive self-control or over-control (T. R. Lynch, in press; T. R. Lynch & Cheavens, 2008; T.R. Lynch, Hempel, & Clark, 2015; T. R. Lynch et al., 2013).

Over-control (OC) has been linked to social isolation, aloof and distant relationships, cognitive rigidity, high detail versus global processing, risk aversion, strong needs for structure, inhibited emotional expression, hyper-perfectionism, social-isolation, and the development of severe and difficult-to-treat mental health problems, such as chronic depression, anorexia nervosa, and obsessive compulsive personality disorder (Asendorpf, Denissen, & van Aken, 2008; Anderluh, Tchanturia, Rabe-Hesketh et al., 2009; B.P.Chapman & Goldberg, 2011; A.L.Chapman, Lynch, Rosenthal, et al., 2007; Eisenberg, Fabes, Guthrie, & Reiser, 2000; Riso et al., 2003; Zucker et al., 2007). While resting on the dialectical underpinnings of standard DBT, the therapeutic strategies, core skills, and theoretical perspectives in RO-DBT often substantially differ. For example, RO-DBT contends that *emotional loneliness secondary to low openness and social-signaling deficits* represents the core problem of over-control, not emotion dysregulation as posited in standard DBT (Linehan, 1993). Individuals characterized by over-controlled coping tend to be serious about life, set high personal standards, work hard, behave appropriately, and frequently will sacrifice personal needs in order to achieve desired goals or help others; yet inwardly they often feel "clueless" about how to join-in with others or establish intimate bonds. Thus, over-control works well when it comes to sitting quietly in a monastery or building a rocket; but it creates problems when it comes to social connectedness.

RO-DBT is supported by 20+ years of translational research; including two NIMH funded randomized controlled trials (RCTs) targeting refractory depression and comorbid OC personality dysfunction (T. R. Lynch et al., 2007; T. R. Lynch, Morse, Mendelson, & Robins, 2003), two open-trials targeting adult Anorexia Nervosa (Chen et al., 2014; T.R. Lynch et al., 2013), one non-randomized trial using RO-skills alone for treatment resistant adults with over-control (Keogh et al., in prep.), and a large ongoing multi-center RCT targeting refractory depression and over-controlled personality disorders (http://www.reframed.org.uk; Lynch chief

investigator). The aim of this paper is to briefly outline the theoretical foundations of RO-DBT and to overview some of the unique structural or treatment strategies that differentiate the treatment from standard DBT and other treatment approaches targeting chronic and/or treatment resistant disorders.

A TRANSDIAGNOSTIC PERSPECTIVE: SELF-CONTROL AS AN OVERARCHING PRINCIPLE

RO-DBT posits that bio-temperamental deficits/excesses combined with cultural or family values for self-control functions to handicap *openness, flexible responding, and cooperative social-signaling;* resulting in habitual *over-control or under-control* of socio-emotional behavior (T. R. Lynch, in press; T.R. Lynch, Hempel, & Clark, 2015; T. R. Lynch et al., 2013)—sharing features with the well-established division between internalizing and externalizing disorders (Achenbach, 1966; Crijnen, Achenbach, & Verhulst, 1997). Broadly speaking self-control refers to the ability to inhibit emotional urges, impulses, and behaviors in order to pursue long-term goals. Examples of under-controlled disorders are conduct disorder, antisocial PD, borderline PD, and binge-purge eating disorder; examples of OC disorders are obsessive compulsive PD, avoidant PD, paranoid PD, and difficult-to-treat conditions such as anorexia nervosa, autism spectrum disorders, and chronic depression. Importantly, under-control and over-control are <u>not</u> one-dimensional constructs—that is, they are not simply opposite ends of a self-control continuum. They are "labels" used to describe a complex set of bio-psycho-social behaviors shared by a spectrum of disorders with similar genotypic/phenotypic features.

The above perspective has clear treatment implications; (i) treatments should not assume client capabilities for openness and flexible responding already exist, which emphasizes the need for skills-based approaches, and (ii) undercontrolled problems require interventions designed to *enhance* inhibitory control, delay gratification in order to achieve long-term goals, plan ahead, and decrease impulsive mood-dependent behavior. Whereas, over-controlled problems need interventions designed to *relax* rigid inhibitory control and increase openness, flexible-responding, pro-social signaling, and emotional expressiveness. Thus, when it comes to treatment, RO-DBT posits that "one size does not fit all"—instead core genotypic/phenotypic differences between groups of disorders necessitate oftentimes vastly different treatment approaches.

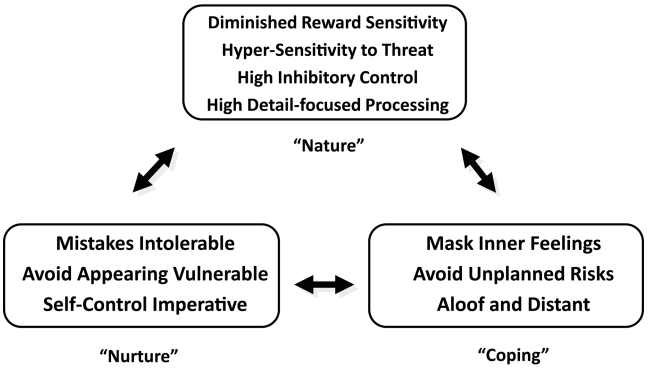

Figure 1.
A NEUROBIOSOCIAL THEORY FOR OVER-CONTROLLED DISORDERS

A NEUROBIOSOCIAL THEORY FOR OVER-CONTROL

Radically open-DBT treatment strategies targeting loneliness and social isolation are informed by a neurobiosocial theory (T. R. Lynch, in press; T.R. Lynch, Hempel, & Clark, 2015; T. R. Lynch et al., 2013) that deconstructs emotion regulation into three broad temporally sequenced components:

(1) *perceptual encoding factors* (sensory receptor regulation) that precede
(2) *internal modulatory factors* (central-cognitive regulation) which then result in
(3) *social-signals* or *external behavioral expressions* (response selection regulation).

Separating overt behavioral regulation from internal central-cognitive regulation helps explain why a person can "feel" anxious *inside* yet not display any "overt" signs of anxiety on the *outside*.

Maladaptive over-control is theorized to develop and to be maintained through a combination of three overarching factors associated with socio-emotional well-being: bio-temperamental and genetic predispositions (*nature*), family-environmental influences (*nurture*), and self-control tendencies (*coping*). Specifically, *bio-temperamental predispositions* for *heightened threat sensitivity, diminished reward sensitivity*, *high inhibitory control capacities, and superior attention for details* are posited to transact with early family/cultural experiences emphasizing *mistakes as intolerable* and *self-control as imperative*, resulting in an *over-controlled coping style* that limits opportunities to learn new skills and establish close social bonds (see Figure 1).

Heightened OC temperamental threat sensitivity, diminished reward sensitivity, and high detail-focused processing function to influence *perception*; making it more likely that novel or discrepant stimuli will not only be detected but evaluated at the sensory-receptor level as dangerous—e.g. when walking into a rose garden, the OC brain is more likely to notice the thorns not the flowers, as well as the misaligned brick in the garden wall. Over-controlled heightened bio-temperamental predispositions for high self-control are often exacerbated by cultural or family-environmental experience. The early environment of a client with OC has often punished making mistakes, imprecision, requests for nurturance, displays of emotion, and/or playful spontaneity. In contrast, the early environment often rewards high tolerance of pain or distress, resistance of temptation, high achievement and winning, rigid adherence to rules, and detection of minor errors or discrepancies. Over-controlled coping emerges as a result of these "nature-nurture" transactions.

A major component of the biosocial theory is that individuals who are over-controlled often unintentionally bring mood states and associated behaviors into social situations that function to isolate them from others. Heightened OC threat sensitivity makes it more difficult for them to enter into their neurologically based social-safety system (T. R. Lynch, in press; T.R. Lynch, Hempel, & Clark, 2015; T. R. Lynch et al., 2013; T. R. Lynch, Lazarus, & Cheavens, 2015). When an individual does not feel safe, the autonomic nervous system is activated—defensive arousal and fight or flight responses become dominant. Facial expressions freeze, and we lose the ability to flexibly interact with others. For the OC individual, defensive arousal and frozen expression (or exaggerated insincere pro-social expression) is common. These behaviors are partly influenced by heightened bio-temperamental threat sensitivity and partly influenced by social feedback from an early age implying that it is imperative to control oneself and avoid an appearance of incompetence. As a consequence, clients who are over-controlled work very hard to avoid mistakes, become increasingly sensitive to perceived criticism, and base their self-worth on how their performance compares to the performance of others. This can lead to rigidly controlled and risk-averse styles of interacting that interfere with new learning and the formation of social bonds (e.g., via automatic rejection of feedback, avoidance of novelty or social situations, frozen or disingenuous expressions, and compulsive desires for structure and order). Unfortunately, extreme OC behavior elicits from others the very thing the OC style is "designed" to prevent, that is people tend to avoid individuals with OC and find their emotionally constricted, disingenuous, and inhib-

ited style of expression uncomfortable to be around. Consequently, the OC individual finds himself or herself increasingly isolated and lonely, which exacerbates psychological distress.

Although both RO-DBT and standard DBT posit that emotions function to *motivate actions* and *communicate intentions,* RO-DBT differs from standard DBT (and other treatments) by hypothesizing that in humans emotions also function to *facilitate* the formation of strong social bonds essential for species survival (via proprioceptive feedback; see T. R. Lynch, in press). When compared to other animal species humans are not particularly physically robust (e.g., we lack thick hides, protective fur, or sharp claws). From an evolutionary perspective, our frailty necessitated the development of a means to bond genetically diverse individuals in such a way that *survival of the tribe* could override phylogenetically older "selfish" response tendencies linked to *survival of the individual*. We hypothesize that proprioceptive feedback and facial affect micro-mimicry reflect core means by which this capacity is developed (see below). This capacity provided us with a unique evolutionary advantage—allowing us to form strong social bonds and share valuable resources with other members of our species who were not in our immediate nuclear family. Consequently, RO-DBT strongly emphasizes the tribal nature of our species—positing that psychological well-being among humans depends greatly on our visceral experience of social connectedness.

Signaling Matters

Research has demonstrated that masking inner feelings (or incongruence between felt experience and displayed behavior) makes it more likely that others perceive the incongruent person as untrustworthy or inauthentic (e.g., Boone & Buck, 2003; Eisenberg et al., 2000; Kernis & Goldman, 2006). This heightens defensive emotional arousal in those interacting with the suppressor, and impairs the development of social closeness (e.g., Butler et al., 2003; Srivastava, Tamir, McGonigal, John, & Gross, 2009). In addition, individuals who habitually suppress expressiveness report feeling more inauthentic and greater discomfort with intimacy compared to those who do not suppress (Gross & John, 2003). Thus, signaling matters when treating clients who are overcontrolled: They are masters of self-control yet struggle communicating openness, cooperation, and warmth—essential skills needed to establish strong social bonds. In effect, the client has closed off a two-way channel of communication with others. Firstly, the "transmit" channel has been closed, preventing outward expression of private emotional

experiences. Secondly, the "receive" channel has been blocked, via automatic rejection of corrective feedback.

Hence, RO-DBT links the *communicative* functions of emotion to the formation of close social bonds. Social signaling skills taught in RO-DBT emphasize methods to activate differing neural substrates—in particular the neural substrate associated with social-safety and activation of the parasympathetic nervous system's ventral vagal complex ([PNS-VVC] T. R. Lynch, in press; see also Porges, 2007). This enables a client who over-controls to naturally relax facial muscles and nonverbally signal cooperation and friendliness; thereby facilitating reciprocal cooperative responses from others and more fluid social interactions. Moreover, RO-DBT uniquely posits that emotional expressions in humans evolved to *facilitate* the formation of close social bonds and altruistic behaviors among genetically dissimilar individuals. This is supported by research showing that we automatically micro-mimic (in milliseconds) the facial expressions of others, which triggers the same brain structures (or mirror neurons) and physiological experience of the "mirrored" person (Montgomery & Haxby, 2008; van der Gaag, Minderaa, & Keysers, 2007). Thus, if we observe a person micro-grimace in pain, we tend to –without conscious awareness– micro-grimace and as a result, via the influence of the mirror neuron system can viscerally "know" how the other person feels inside. The *facilitative* function of emotion is hypothesized to represent a core component linked to the development of sympathy, altruism, and empathy in our species (T.R. Lynch, in press). It helps explain why humans are willing to risk our lives to save (or fight for) genetically dissimilar others in our tribe (e.g., fireman going into a burning building; clashes between rival athletic teams; T.R. Lynch, in press). Consequently, RO-DBT emphasizes skills that take advantage of the mirror neuron system and our natural tendencies to micro-mimic others in order to enhance social connectedness. In addition, RO-DBT emphasizes skills designed to activate the PNS-VVC social-safety system, increase vulnerable self-disclosure, break-down over-learned expressive inhibitory barriers (e.g., participation without planning and the art of being just a little bit silly), and signal friendliness (e.g., leaning back in one's chair rather than forward or raising eyebrows upward when stressed). The emphasis on openness, social-signaling, micro-mimicry, and changing neurophysiological arousal differentiates RO-DBT from other therapeutic approaches; most notably those positing etiological factors linked to metacognitive awareness, mentalization, emotion regulation, experien-

Table 1. DIFFERENCES IN THERAPEUTIC STANCE BETWEEN STANDARD DBT AND RO-DBT

Standard DBT	RO-DBT
√ Therapist directedness often required in order to stop dangerous impulsive behavior	√ The therapist is less directive and encourages independence of action or opinion
√ Therapist may encourage brief disengagement from conflict to reduce/avoid escalation	√ Therapist encourages engagement in conflict rather than automatic abandonment or avoidance
√ Major focus on emotion regulation skills and gaining behavioral control	√ Major focus on social-signaling, openness, and social connectedness
√ External contingencies, including mild aversives, help the client gain control and discover the reinforcing consequences of impulse control	√ Emphasis is on self-enquiry and self-discovery rather than impulse control
√ Therapist recognizes that BPD clients need to do better, try harder, and/or be more motivated to change	√ Therapist recognizes that clients characterized by over-control need to let-go of always striving to perform better or try harder
√ Therapist appreciates that the lives of suicidal, BPD individuals are unbearable as they are currently being lived	√ Therapist appreciates that the lives of clients who over-control are miserable even though this may not always be apparent
√ Therapist recognizes therapy interfering behaviors as problems necessitating change	√ Therapist recognizes therapeutic alliance ruptures as opportunities for growth
√ Therapist rewards regulated and measured expression of emotions and thoughts	√ Therapist rewards candid disclosure and uninhibited expression of emotion

tial avoidance, acceptance, behavioral exposure and response prevention, early childhood trauma, interpersonal problem solving, behavioral activation, or cognitive restructuring.

THE THERAPEUTIC STANCE: DIFFERENCES BETWEEN STANDARD DBT AND RO-DBT

The overall therapeutic stance used to teach skills to OC clients is often dialectically opposite to approaches used in standard DBT. For example, RO-DBT is less likely than DBT to emphasize skills that teach how to avoid conflict, be more organized, restrain impulses, delay gratification, or tolerate distress, because these skills are already overlearned or engaged in compulsively by most OC individuals. Instead, RO-DBT encourages clients to practice disinhibition, participate without planning, be more open to critical feedback, and be more emotionally expressive. Radical openness is not something that can be grasped solely via intellectual means. Thus, RO-DBT *requires* therapists to practice radical openness and self-enquiry themselves in order to teach them to others—e.g. clients who are over-controlled are unlikely to believe it is socially acceptable for an adult to play, relax, admit fallibility, or openly express emotions unless they see their therapists model it first. A list of some of the core differences in therapeutic stance between standard DBT (Linehan, 1993a) and RO-DBT is outlined in Table 1.

STRUCTURE OF TREATMENT

RO-DBT Treatment Modes and Targets

The functions and modes of outpatient RO-DBT are similar to those in standard DBT (Linehan, 1993a), including weekly one hour individual therapy sessions, weekly skills training classes, telephone coaching (as needed), and weekly therapist consultation team meetings (over a period of ~30 weeks). The primary target/goal in RO-DBT is to decrease severe behavioral over-control, emotional loneliness, and aloofness/distance *rather* than decrease severe behavioral dyscontrol and mood dependent responding as in standard DBT.

RO-DBT Orientation and Commitment

The orientation and commitment stage of RO-DBT takes up to four sessions and includes five key components: 1) confirming self-identification of over-control as the core problem, 2) obtaining a commitment from the client to discuss in-person desires to drop-out of treatment before dropping-out, 3) orienting the client to the RO-DBT neurobiosocial theory of over-control, and 4) orienting the client to the RO-DBT key mechanism of change—i.e., open expression = increased trust = social connectedness. A major aim of the orientation and commitment stage of RO-DBT is to identify collaboratively the factors that may be preventing the client from living according to their valued-goals. *Values* are the principles or standards a person considers important in life that guide behavior—e.g. to raise a family, to be a warm and helpful parent to one's children, to be gainfully and happily employed, to develop or improve close relationships, to form a romantic partnership. Whereas, *goals* are the means by which a personal value is achieved—e.g. working collaboratively on projects or household chores in a manner that respects individual differences and appreciates each person's contributions. From here, the therapist can begin the process of identifying and individualizing treatment targets. *Treatment targets* in RO-DBT prioritize maladaptive social-signaling behaviors that function to ostracize the client and exacerbate emotional loneliness. For example, repeatedly re-doing other people's work (e.g., re-wording an email, repacking the dishwasher) sends a powerful social-signal (e.g., that others are incompetent or cannot be trusted) that negatively impacts achievement of valued-goals related to social connectedness. Thus, "re-doing" is an obstacle because it demoralizes coworkers and family members, while exhausting the client because it means that they are often working harder than nearby others—leading to resentment and burnout. Finally, the orientation and commitment phase involves the start

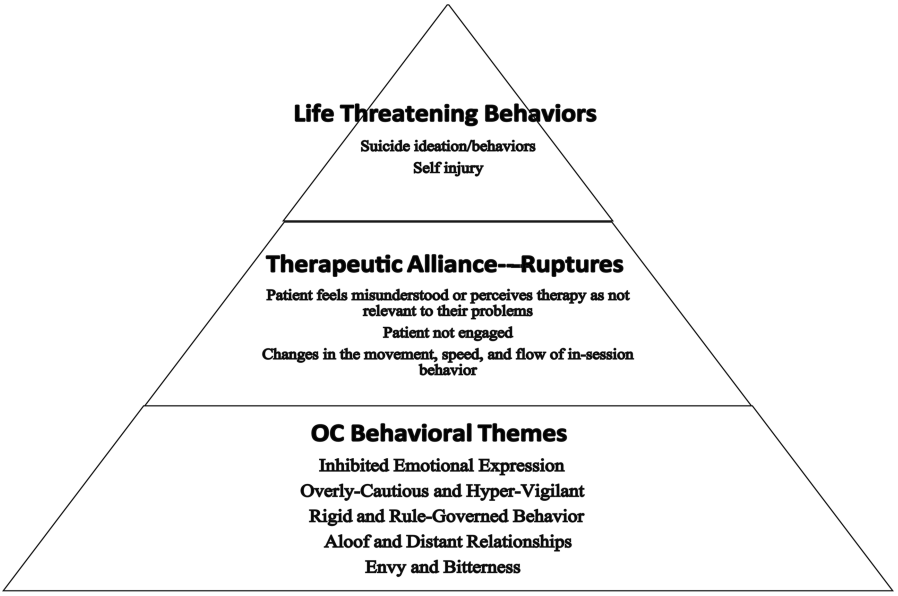

Figure 2.
RO-DBT INDIVIDUAL TREATMENT TARGET HIERARCHY FOR OVER-CONTROL

of individualized treatment targets linked to five OC themes—in this case, "re-doing" is linked to the theme "rigid and rule-governed behavior" (see OC themes below).

RO-DBT Individual Therapy Treatment Targets

RO-DBT treatment targets are arranged according to a hierarchy of importance; 1) reduce life-threatening behaviors, 2) repair alliance-ruptures, and 3) reduce OC social-signaling deficits and maladaptive overt behaviors linked to OC themes (see Figure 2). Unlike standard DBT, RO-DBT hierarchically targets *therapeutic alliance ruptures* over *therapy-interfering behaviors*. Alliance-ruptures in RO-DBT are defined as: 1) the client feels misunderstood, and/or 2) the client experiences the treatment as not relevant to their unique problems. This is a major deviation from standard DBT, where therapy-interfering behaviors are considered the second most important target in the treatment hierarchy (after life threatening). Broadly speaking, therapy-interfering behaviors in standard DBT (Linehan, 1993a) refer to *problem behaviors* that interfere with the client receiving the treatment (e.g., non-compliance with diary cards, not showing for sessions, or refusal to speak during a session). In RO-DBT alliance-ruptures *are <u>not</u> considered problems*; they are considered essential

practice grounds for learning that conflict can be intimacy enhancing. Crucially, clients who are over-controlled need to learn that expressing inner feelings—including those involving conflict or disagreement—is part of normal healthy relationships. Since clients characterized by OC are expert at masking inner feelings, a strong therapeutic alliance is not expected to develop until mid-way through treatment (i.e., ~14th session)—regardless of client statements of commitment or therapist expertise. Consequently, RO-DBT considers it likely that a therapeutic relationship is superficial, if by the 14th session, a therapist/client dyad has not had multiple alliance-ruptures and repairs. When an alliance rupture is suspected, RO-DBT therapists are taught to adopt a stance of *relaxed, yet engaged, curiosity* in order to facilitate a repair. This typically involves seven sequential steps:

1) Dropping the current agenda or topic being discussed (e.g., chain analysis).
2) Taking the "heat-off" by briefly disengaging eye-contact. Most OC individuals dislike being the center of attention (i.e., the "limelight"). *Heat-off* is a skill that involves briefly shifting one's attention elsewhere in order to allow a hyper-threat sensitive OC client time to self-regulate.
3) Signaling affection and cooperation by leaning back, taking a slow deep breath, half smiling, and raising one's eyebrows. Raised eyebrows (or eyebrow wags) are universal signals of liking and social-safety.
4) Inquiring about the in-session change and encouraging candid disclosure—e.g. "*I noticed something just happened*" (describe change), then "*Did you notice this too? What's going on with you right now?"*
5) Slowing the pace of the conversation, allowing time for the client to reply to questions, reflecting back what is heard, and confirming that the reflection was accurate.
6) Reinforcing candid self-disclosure (e.g., thanking them for the "*gift of truth"*).
7) Confirming re-engagement by checking in with them before returning back to the original agenda. It is important to keep repairs short (less than 10 minutes) in order to reinforce self-disclosure (recall that clients who over-control dislike the "limelight").

Though life-threatening and therapeutic- alliance ruptures take precedence when present; the third most important target in the RO-DBT treatment hierarchy pertains to the *reduction of maladaptive OC behaviors*

Table 2. OC BEHAVIORAL THEMES: PATH TO FLEXIBLE MIND

Maladaptive OC Theme	Primary Social-Signaling Deficit—and examples
Inhibited Emotional Expression	**Refers to social-signaling deficits linked to emotional expression.** E.g. inhibited, constrained, and frozen facial expressions, body movements, and gestures or overly pro-social, phony, and insincere facial expressions and gestures; very few people may know that they have an explosive temper or high anxiety, may rarely spontaneously laugh; find it difficult to speak about inner feelings or reveal vulnerability; may pout or use the silent treatment to punish others when angry.
Hyper-Vigilant and Overly-Cautious	**Refers to social-signaling deficits stemming from OC bio-temperamental predispositions for high threat sensitivity, low reward sensitivity, and high detail-focused processing.** E.g., tense-monotonic voice tone; guarded and wary when entering new situations; frequent checking and re-checking of safety cues despite evidence that all is well, avoiding risks that cannot be controlled or planned in advance; hyper-attentive for discrepancies or mistakes, anxiety may interfere with their abilities to hear what another person is saying; obsessive about details, rarely genuinely amused or content, serious about life; may frequently notice errors that other people miss; may feel compelled to correct mistakes made by others; may rarely relax or seek pleasure; believe life is hard.
Rigid and Rule-Governed Behavior	**Refers to social-signaling deficits resulting from compulsive needs for order and structure.** E.g. high moral certitude—there is a right and wrong way to do things; will make self-sacrifices to care for others or to do the 'right' thing; strong desires to be correct; hyper-perfectionism; believe that there is a set of rules and principles that one should always adhere to; compulsive rehearsal, premeditation, and planning; compulsive approach-coping and fixing; excessive persistence despite evidence that it will do harm; actions motivated by social obligation and dutifulness—rather than anticipatory pleasure; may work obsessively.
Aloof and Distant Relationships	**Refers to social-signaling deficits linked to low openness and conflict avoidance.** E.g. walking-away or abandonment is the preferred solution during interpersonal conflict; having to be around others for long time periods is exhausting or annoying; very few people may know who they really are; feel detached or different from others; low social-connectedness is not necessarily due to lack of contact with others; when challenged by someone tend to immediately deny, dismiss, or dispute the feedback; may rarely-apologize; may believe that love is phony or naive; may secretly believe they are superior to others.
Envy and Bitterness	**Refers to social-signaling deficits linked to compulsive striving, high social comparisons, and high dominance.** E.g. not easily impressed; secretly competitive; may feel unappreciated for self-sacrifices; may consider themselves a cynic or a martyr; may believe that most things in life don't work out; may do almost anything to get ahead; may be secretly proud of their ability to tolerate pain or distress in order to achieve a goal; may see self as too complex to ever be understood; may engage in harsh gossip and revengeful acts; high resentment, resignation, and pessimism.

linked to five OC behavioral themes. These themes (see Table 2), specific for OC problems, are used as a framework for structuring the identification of individualized and behaviorally specific OC treatment targets. The key in treatment targeting with OC is for the therapist to continually ask themselves in-session: *"How might this type of social-signaling—e.g. pouting, looking away, flat affect, non-descript use of language, answering a question with a question—impact the formation of a strong social bond?" or "Would this behavior make it more likely or less likely for a person interacting with my client to want or desire to get to know them better?"* Thus, treatment targeting and subsequent behavioral chain analyses in RO-DBT *prioritize changing problematic social-signaling deficits* that function to reduce social-connectedness (e.g., turning-down help; silent treatment) *over problematic internal experiences* (e.g., emotion dysregulation,

distorted thinking; experiential avoidance). Individualized targets are monitored daily on diary cards and updated regularly.

RO-DBT Skills Training

Radically Open-DBT skills training classes meet on average for ~30 weekly sessions—with each class lasting approximately 2.5 hours. Table 3 provides an overview of the RO-DBT skills training lesson plan—including those from standard DBT (Linehan, 1993b; 2014) that have been adapted for OC problems (identified by * *and italics*). Next we review the core theoretical principles underlying radical openness and describe some of the new features in RO-DBT mindfulness skills. The RO-DBT treatment manual provides detailed skills training instructor notes and key teaching points for all of the RO-DBT skills listed in Table 3—including user friendly handouts/worksheets for clients (T.R. Lynch, in press).

Core Radical Openness

Radical openness represents the core philosophical principle and core set of skills in RO-DBT. It is based on confluence of three overlapping elements or capacities posited to characterize psychological health: openness, flexibility, and social connectedness (with at least one other person). As a state of mind, it entails a willingness to surrender prior preconceptions about how the world should be in order to adapt to an ever-changing environment. At its most extreme, radical openness involves actively seeking the things one wants to avoid in order to learn. Radical openness alerts us to areas in our life that may need to change while retaining an appreciation for the fact that change is *not* always needed or optimal.

RO-DBT replaces core Zen principles in standard DBT with those derived from Malamati-Suffism. The Malamatis are not so much interested in the acceptance of reality or seeing "what is" without illusion (central Zen principles), but rather they look to find fault within themselves and question their self-centered desires for power, recognition or self-aggrandizement (Toussulis, 2012). Thus, radical openness involves purposeful self-enquiry and the cultivation of healthy self-doubt. Importantly, *radical openness* differs from *radical acceptance* taught as part of standard DBT (Linehan, 1993a). Radical acceptance "is letting go of fighting reality" and "is the way to turn suffering that cannot be tolerated into pain that can be tolerated" (Linehan, 1993b, pg. 102), whereas *radical openness challenges our perceptions of reality*. Indeed, radical openness posits that *we are unable to see things as they are, but instead that we see things as we are* because each of us carries perceptual and regulatory biases with us that influence our ability to be receptive and to learn from unexpected or

Table 3. AN OVERVIEW OF RO-DBT SKILLS TRAINING LESSONS

Lesson #	Skills Taught
Lessons 1-2: Practicing Radical Openness and Understanding Emotions	RO-Why be radically open? RO-Learning from Self-Enquiry, RO-Myths of a Closed Mind, RO-Three Steps for Radically Open Living; RO-Five Emotionally Relevant Cues, RO-Model of Emotions,
Lessons 3-4: Labelling Emotions and Understanding Over-Controlled Coping	RO-Over-Controlled Myths about Emotions, RO-Emotions are there for a Reason, RO-Making sense of Emotional Reactions; RO-Understanding Over-controlled Coping, RO-Over-control can become a Habit!
Lessons 5-6: OC States of Mind and Radical Acceptance	RO-Mindfulness States of Mind; Fixed-Mind, Fatalistic-Mind, Flexible-Mind; **standard DBT Letting go of Emotional Suffering; *standard DBT Radical Acceptance skills*[1]
Lessons 7-8: Changing Social Connectedness by Changing Physiology	RO-Change Social Behavior by Changing Physiology, RO-Open expression = Trust = Social Connectedness.
Lessons 9-10: Mindfulness and Self-Enquiry	RO-Mindfulness "What" skills—**standard DBT mindfulness observe skills;* RO-Awareness Continuum and 'Outing-Oneself' describe skills; RO-participate without planning skills. RO-Mindfulness "How" skills—RO-with awareness of judgments, RO-with self-enquiry, **standard DBT one-mindfully skills*, and **standard DBT effectively.*
Lessons 11-12: Celebrating Novelty and Going Opposite to Seriousness	RO-Engaging in Novel Behavior, RO-Flexible-Mind VARIES[2] in order to learn new things,; *standard DBT opposite action skills;* RO-Going Opposite to Seriousness—the Art of Non-Productivity & Being a little bit Silly
Lessons 13-14: Learning from Corrective Feedback	RO-Learning from Corrective Feedback using Flexible-Mind ADOPTS; RO-Accept or Decline Feedback—12 Questions.
Lessons 15-16: Social-Signaling Impacts Relationships	RO-Social-Signaling —"Push-Backs and Don't Hurt Me"; RO-Myths about Interpersonal Relationships; **standard DBT Goals of interpersonal effectiveness and DEAR MAN-GIVE FAST skills.*
Lessons 17-18: Signaling Empathy and Validation	RO-Social-Signaling Empathy and Validation; RO-Seven Ways to Signal Empathy; RO-Flexible-Mind Validates.
Lessons 19-21[3]: Repetition of RO-States of Mind and Mindfulness Skills	Repeat RO-States of Mind and RO-Mindfulness "What" and "How" skills—including **standard DBT observe and one-mindful skills.*
Lessons 22-23: Learning How to Signal Trust and Establish Social Connectedness	RO-Intimacy Thermometer; RO-Flexible-Mind ALLOWs one to enhance social connectedness; RO-Match + 1 skills; RO-Levels of Relationship Intimacy.
Lessons 24-26[3]: Understanding Envy, Resentment, Bitterness, and Revenge	RO-understands Envy, Resentment, Bitterness, and Revenge; RO-Flexible-Mind DAREs to let go of envy; RO-Flexible-Mind is LIGHT when targeting bitterness.
Lessons 27-28: Learning How to Forgive	RO- What is forgiveness? RO-learning to grieve, RO-Flexible-Mind has the HEART to forgive.
Lessons 29-30: Social-Safety Induction Using Loving-Kindness-Meditation and Summing it All Up	RO-Loving-Kindness Meditation skills—activating social-safety mood states; RO-Integration Week[4].

Note[1]: standard DBT skills can be identified by an **** and italics***—they include; *standard DBT Letting go of Emotional Suffering; standard DBT radical acceptance skills; standard DBT observe and one-mindfully skills; standard DBT effectively; standard DBT opposite action skills; standard DBT Goals of interpersonal effectiveness and DEAR MAN-GIVE FAST skills*—all of which have been modified to some extent for OC problems.

Note[2]: Similar to standard DBT, acronyms are used as mnemonic aids in RO-DBT. For example, in Lessons 27-28: Flexible-Mind has HEART, *Learning How to Forgive*, each letter of the acronym **HEART** refers to a specific set of skills; **H** stands for the skill of identifying the past **Hurt**; **E** stands for the skill of locating one's **Edge** that is keeping you stuck in the past; **A** stands for **Acknowledge** that forgiveness is a choice, **R** stands for **Reclaim** your life by grieving the your loss and practicing forgiveness; and **T** stands for the importance of passing-on **Thankfulness.**

Note[3]: Lessons 19-21 are repetitions of Lessons 5-6 & 9-10 compressed into three weeks. Lessons 24-26 are expected to take three weeks.

Note[4]: '*Integration Week*' is intended to provide the space for instructors and clients to 'pull it all together', be creative, and/or review core skills in order to deepen their practice of radical openness.

disconfirming information. This way of behaving also contrasts with the concept of wise mind in standard DBT that emphasizes the value of intuitive knowledge, the possibility of fundamentally knowing something as true or valid, and posits inner knowing as "almost always quiet" and to involve a sense of "peace" (Linehan, 1993b, p. 66). From an RO-DBT perspective, "facts" or "truth" can often be misleading partly because "we don't know what we don't know", things are constantly changing, and there is a great deal of experience occurring outside of our conscious awareness. Truth is considered "*real yet elusive*" – e.g. "If I know anything, it is that I don't know everything and neither does anyone else" (M. P. Lynch, 2004; pg. 10). It is the pursuit of truth that matters—not its attainment. Radical openness requires willingness to doubt or question intuition or inner conviction without falling apart.

The practice of radical openness involves three steps: 1) *acknowledgment* of environmental stimuli that are disconfirming, unexpected, or incongruous, 2) purposeful *self-enquiry* into habitual or automatic emotion-based response tendencies by asking "*Is there something here to learn?*" –rather than automatically explaining, justifying, defending, accepting, regulating, re-appraising, distracting, or denying what is happening in order to feel better, and 3) *flexibly responding* by doing what is needed to be effective in the moment in a manner that signals humility and accounts for the needs of others (e.g., recognizing that what is "effective" for oneself—may not be effective for others; celebrating diversity; signaling a willingness to learn from what the world has to offer; strive for perfection, but stop when feedback suggests that striving is counterproductive or damaging a relationship).

RO-DBT Mindfulness Skills

Mindfulness skills in RO-DBT include new OC states of mind (Fixed-Mind, Flexible-Mind, and Fatalistic-Mind) and new "what" and "how" skills (i.e., Awareness Continuum and "Outing-Oneself" describe skills, "Participate without Planning" skills; "Self-Enquiry" skills, and "with Awareness of Judgments" skills). The new mindfulness states of mind in RO-DBT represent common OC ways of coping—that can be both adaptive and maladaptive depending on the circumstances. For OC individuals two states of mind are most common—both of which are usually maladaptive and occur secondary to disconfirming feedback and/or when confronted with novelty. When challenged or uncertain, the most common OC response is usually to search for a way to minimize, dismiss, or disconfirm feedback in order to maintain a sense of control and order. This

style of behaving in RO-DBT is referred to as *fixed mind.* Fixed mind is a problem because it says "change is unnecessary because I already know the answer". The dialectic opposite of fixed mind is *fatalistic mind*. Whereas fixed mind involves rigid resistance and energetic opposition to change, fatalistic mind involves giving-up overt attempts at resistance. Fatalistic mind can be expressed by drawn out silences, bitterness, refusals to participate, and/or sudden acquiescence or a literal suspension of goal-directed behavior and shut-down. Fatalistic mind is a problem because it removes personal responsibility by implicating that "change is unnecessary or impossible because there is no answer". Mindful awareness of these "states" serves as important skill practice reminders. *Flexible mind* forms the synthesis between fixed and fatalistic mind states: it involves being radically open to the possibility of change in order to learn, without rejecting one's past or falling apart. Importantly, although wise mind in standard DBT and flexible mind in RO-DBT share some similar functions, there are also important differences. For example, whereas wise mind celebrates the importance of inner knowing and intuitive knowledge (see Linehan, 1993b pg. 66), flexible mind celebrates self-enquiry and encourages "healthy self-doubt" and compassionate challenges of our perceptions of reality.

There are two new RO-DBT mindfulness "What" skills. The first is an RO- "describe" skill known as the "*Awareness Continuum*", which provides a structured means for a client who is over-controlled to practice revealing inner feelings to another person—without rehearsal or planning in advance what one might say. It also allows practitioners an opportunity to practice how to label and differentiate between thoughts, emotions/feelings, sensations, and images. The second RO-DBT "what" skill is referred to as "*Participating without Planning*". This skill involves learning how to passionately participate with others without compulsive rehearsal or obsessive needs to get it 'right'. *Participating without planning* practices should be unpredictable (i.e., they begin without any form of forewarning or orientation) and brief (i.e., 60 seconds in duration). For example, the instructor without any forewarning suddenly begins to make a silly face, wave their arms about, while saying; "*OK, everyone do what I do! Make a funny face and wave your arms, like this! And this! (*changing expression while clucking and flapping like a chicken) *There's nobody here but us chickens! Wow, look at me . . . I'm speaking nonsense! Blah-Blah. Now say it again. Blah-Blah! Say bloo-blip and blippity-bloop! OK, now say, blippity-be-ba-blipty bloo! (*pause with warm smile, eye contact all around and eyebrows raised*) Getting better, LET'S GO LOUDER! Say, OHRAW!*

SAY OHRAWWW! SAY IT AGAIN. . .OOOHHHRAWWWW! OK, all together now . . . LET'S START SPEAKING GOBBLITY-GOOK WHILE WAVING OUR ARMS! IT'S A NEW LANGUAGE! Haven't you heard? Boo . . . boo . . . blickety-block and floppity-flow and mighty so-so!" Instructors should end by clapping their hands in celebration and encourage the class to give themselves a round of applause. *"Well done! OK, now sit down and let's share our observations about our mindfulness practice."* The brief nature of the practice makes it less likely for self-consciousness to arise and more likely for individual members to experience a sense of positive connection or cohesion with the class as a whole—that generalizes outside of the classroom with repeated practice. These practices are an essential tool for teaching clients characterized by over-control how to re-join the tribe.

There are two new RO-DBT mindfulness "How" skills. With "*Self-Enquiry"* is the core RO-DBT "how" skill and the key for radically open living. It involves actively seeking the things one wants to avoid or may find uncomfortable in order to learn and the cultivation of a willingness to be "wrong"—with an intention to change if needed. *Self-enquiry celebrates problems as opportunities for growth—rather than obstacles preventing us from living fully.* The core premise underlying self-enquiry stems from two observations: 1) we do not know everything—therefore, we will make mistakes, and 2) in order to learn from our mistakes, we must attend to our error. Rather than seeking equanimity, wisdom, or a sense of peace, self-enquiry helps us learn because there is no assumption that we already know the answer. RO-DBT therapists must practice radical openness and self-enquiry themselves in order to encourage clients to use self-enquiry more deeply. For example, one therapist practiced outing themselves to their client in order to illustrate how Fatalistic-Mind thinking thrives on denial and self-deception by saying:

> *"Though it is hard to admit . . . during an argument, say with my partner. . . .sometimes I purposefully become less talkative or avoid eye contact in order to punish them for not agreeing with me; that is, I pout. If the person I'm with asks me why I am not talking, I usually deny that I am being quiet, yet deep down I know that I am purposefully choosing to talk less. What I find amusing is that the more willing I am to concede to myself or the other person that I am in Fatalistic-Mind, the harder it is for me to keep it up. I have discovered that, for me, pouting can really only exist if I pretend it's not happening. Once I admit it; even just to myself; I find it difficult to maintain because deliberate pouting is not how I want to behave or deal with conflict.*

My self-enquiry work around this has helped me live more fully according to my values."

The willingness of the therapist to reveal weakness without falling apart or harsh self-blame functioned to encourage the client to behave similarly—in this case, the client revealed for the first time that he often secretly tried to undermine others and sometimes lied to obtain a desired goal. The client's self-disclosure of a previously well-guarded "secret" resulted in the identification of important treatment targets linked to envy and bitterness. Outing one's personality quirks or weaknesses to another person goes opposite to OC tendencies of masking inner feelings—therefore, the importance of this when treating OC cannot be overstated. Plus, since expressing vulnerability to others functions to enhance intimacy and desires to affiliate, the practice of outing oneself when used in other areas of life can become a powerful means for OC clients to rejoin the tribe. Practicing self-enquiry is particularly useful whenever we find ourselves strongly rejecting, defending against, or agreeing with feedback that we find challenging or unexpected. Self-enquiry begins by asking: "Is there something to learn here?" Examples of self-enquiry questions include:

- √ *Is it possible that my bodily tension means that I am not fully open to the feedback? If yes or possible, then: What am I avoiding? Is there something here to learn?*
- √ *Do I find myself wanting to automatically explain, defend, or discount the other person's feedback or what is happening? If yes or maybe, then: Is this a sign that I may <u>not</u> be truly open?*
- √ *Do I believe that further self-examination is unnecessary because I have already worked out the problem, know the answer, or have done the necessary self-work about the issue being discussed? If yes or maybe, then: Is it possible that I am <u>not</u> willing to truly examine my personal responses?*

The second new "how" skill in RO-DBT mindfulness is "*Awareness of Unhelpful Judgments*". Our brains are hard-wired to evaluate the extent we "like or dislike" what is happening to us each and every moment. Thus, from an RO-DBT perspective we are always judging and our perceptual biases influence our relationships and how we socially-signal. RO-DBT encourages clients to use self-enquiry to learn how judgments impact relationships and social-signaling. For example, by asking:

- √ *When I am self-critical or self-judgmental, how do I behave around others? For example, do I hide my face, avoid eye contact, slump my shoulders, and/or lower my head? Do I speak with a lower volume or*

slower pace? Or do I tell others that I am overwhelmed and/or unable to cope?

√ *How does my self-critical social-signaling impact others? What might my self-judgmental social-signals tell me about my desires or aspirations? What am I trying to communicate when I behave in this way?*

RO-DBT Skills Generalization: Building Bridges to Enhance Social-Connectedness

In standard DBT, the function of enhancing skills generalization is most frequently accomplished via the use of telephone skills coaching by the individual therapist (see Linehan, 1993a). In general, OC clients are less likely to utilize this mode. As one client characterized by over-control explained "I just don't do crisis." In our current RO-DBT multi-center RCT (project REFRAMED) the majority of 'skills coaching' involves clients learning to celebrate success by text-messaging their therapist when the use of an RO-skill 'worked' or using text-messaging to practice 'outing-themselves' when they experience new insight or learning following a practice of self-enquiry. In addition, RO-DBT encourages therapists to invite families, partners, or caregivers to participate in treatment. The RO-DBT treatment manual (T.R. Lynch, in press) includes RO-couple therapy and RO-multi-family treatment protocols. Treatment strategies with families, couples, and other important members of a client's social network typically involve: 1) educating the family/partner/caregiver about the RO-DBT neurobiosocial theory and linking this to the treatment strategies being used with the client; 2) explicit training in core RO-DBT skills to facilitate skills generalization; 3) modeling and encouraging dialectical thinking, e.g., demonstrating that there can be more than one way of thinking about something; and 4) encouraging the family/partner/caregiver to embrace a spirit of radical openness and "self-inquiry" when problems or challenges arise.

RO-DBT Consultation and Supervision: Practicing Radical Openness Ourselves

Therapists using RO-DBT ideally build into their treatment program a means to support therapists to practice radical openness themselves and support them in effectively delivering the treatment. This most often translates into a weekly therapist consultation team meeting. In RO-DBT a consultation team meeting is highly recommended, but not required. The rationale for making the consultation team optional is partly influenced by the less severe crisis generating behavior seen among clients characterized by over-control, as well as practical, since the majority of therapists treating

over-controlled problems do not traditionally work in teams. Therapists without teams are encouraged to find a means to re-create the function an RO-consultation team (e.g., virtual teams; supervision). Consultation team meetings serve several important functions, including reducing therapist burnout, providing support for therapists, improving phenomenological empathy for clients, and providing treatment planning guidance. Plus, a major assumption in RO-DBT is that to help clients learn to be more open, flexible, and socially connected, therapists must practice the same skills in order to be able to model them to their clients. Thus, the consultation team in RO-DBT is considered an important means by which therapists can "practice what they preach" to their clients.

SUMMARY AND CONCLUSIONS

RO-DBT is a new transdiagnostic treatment targeting a spectrum of disorders characterized by excessive inhibitory control or over-control. Reflecting recent National Institute of Mental Health (NIMH) Research Domain Criteria (RDoC) initiatives (http://www.nimh.nih.gov/research-priorities/rdoc/nimh-research-domain-criteria-rdoc.shtml), RO-DBT posits that core genotypic/phenotypic differences between groups of disorders often necessitate vastly different treatment approaches. The treatment uniquely exploits bottom-up peripheral nervous system processes to regulate OC bio-temperamental perceptual and regulatory biases—e.g. teaching skills to stimulate a neural substrate associated with social-safety and desires to affiliate (i.e., PNS-VVC). RO-DBT also introduces a unique mechanism of therapeutic change by linking the *communicative* and *facilitative* functions of *emotional expression* to the *formation of close social bonds.* This translates into novel social-signaling skills designed to enhance social connectedness that take advantage of the mirror neuron system and our natural tendencies to micro-mimic others—a key component differentiating RO-DBT from other treatments. Finally, a central premise of RO-DBT is that well-being requires receptivity and flexible adaptation to changing environmental demands, as well as a capacity to form close long-lasting relationships. This definition differentiates *perceptual and reactive* factors from *regulatory and control* factors, while acknowledging the *relational* nature of our species. Well-adjusted persons are able to be open to disconfirming feedback, and modify their behavior, in a manner that accounts for the needs of others, as a means of optimizing performance.

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