## COGNITIVE REGULATORY CONTROL THERAPIES

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### CENTRE FOR THEORETICAL RESEARCH IN PSYCHIATRY & CLINICAL PSYCHOLOGY

- Addresses the need for high quality theoretical research, and the current lack of balance between empirical and theoretical approaches in psychiatry and clinical psychology
- Promotion
- Guidelines
- Assistance
- "There is nothing so practical as a good theory." (Kurt Lewin)
- <u>www.psychiatrytheory.com</u> or <u>www.theorypsychiatry.com</u>

#### PUBLISHED RESEARCH ARTICLES

- Depression: Discrete Or Continuous? Psychopathology, In Press
- Cognitive Regulatory Control Therapies. American Journal of Psychotherapy, 2013; 67(3): 215-236
- Therapeutic Dissociation: Compartmentalization & Absorption. Counselling Psychology Quarterly, 2012; 25(3): 307-317
- Psychosis: A Synthesis Of Motivational And Defect Perspectives. The American Journal of Psychoanalysis, 2012; 72: 152-165
- Augmenting Behavioural Activation Treatment With The Behavioural Activation And Inhibition Scales. Behavioural and Cognitive Psychotherapy 2012; 40: 233-237
- A Cognitive Regulatory Control Model Of Schizophrenia. Brain Research Bulletin, 2011; 85: 36-41
- Repetitive Maladaptive Behavior: Beyond Repetition Compulsion. The American Journal of Psychoanalysis, 2010; 70: 282-298

#### PUBLISHED RESEARCH ARTICLES

- Personality Disorders: A Dimensional Defense Mechanism Approach. American Journal of Psychotherapy, 2010; 64(2): 153-169.
- Motion Sickness: A Negative Reinforcement Model. Brain Research Bulletin, 2010; 81: 7-11.
- Hypomania: A Depressive Inhibition Override Defense Mechanism. Journal of Affective Disorders, 2008; 109: 221-232.
- How Psychiatric Treatments Can Enhance Psychological Defense Mechanisms. The American Journal of Psychoanalysis, 2006; 66 (2): 173-194.
- Psychological Defense Mechanisms: A New Perspective. The American Journal of Psychoanalysis, 2004; 64(1): 1-26.
- Delusions and Self-Esteem (B Bowins & G. Shugar). Canadian Journal of Psychiatry, 1998; 43: 154-158.

#### **WORKSHOP FORMAT**

- Biological regulation
- Psychological regulation
- Cognitive regulatory control therapies
- Application to mental illness
- Questions and open discussion
- Workshop based upon the article, Cognitive Regulatory Control
   Therapies-American Journal of Psychotherapy (2013), and other peer-reviewed research by presenter

#### **BIOLOGICAL REGULATION**

- Physiological parameters such as electrolyte compositions, blood sugar levels, temperature, and blood pressure tightly controlled
- Cell growth is regulated to keep the system in balance; cancer arises when cells escape this regulation
- The immune system is activated when foreign organisms or aberrant cells are detected, and deactivated when the threat is managed
- Activation and deactivation of systems are integral to regulation
- These processes comprise physiological homeostasis

#### PSYCHOLOGICAL REGULATION

- Robustness of biological regulation suggests that psychological regulation is essential-Psychological homeostasis
- Psychological homeostasis involves regulation of behaviour, emotions, and thought processes
- Regarding behaviour, we unconsciously regulate sexual and aggressive urges-Impulse control
- Emotional self-regulation is essential for social functioning providing the capacity to contain anger, sadness, fear, and other emotions
- Thought process regulation is critical for executive functioning and also to ensure that thoughts influencing actions are reality congruent

### COGNITIVE REGULATORY CONTROL THERAPIES

- Cognitive behavioural and related techniques enhance top-down regulation either by:
- Reappraisal of the situation
- Dissociating from adverse stimuli
- Changing the stimulus-response association
- Activating psychological defence mechanisms
- Additional strategies specific to the regulatory deficit

### DEPRESSION & ANXIETY: EMOTIONAL INFORMATION PROCESSING

- Primary emotions-fear, sadness, anger, disgust, shame, surprise, interest, happiness
- Secondary emotions as variants or combinations of primary emotions
- Cognitive activating appraisals underlie emotions
- A cognitive deep structure exists for at least the primary emotions representing core themes consistent across cultures
- The deep structure for fear is threat or danger, and for sadness loss

#### THE AMPLIFICATION EFFECT

- Intelligence is a key aspect of human evolution
- Primary emotions were present in primates and many mammals, hence almost certainly in earlier hominins
- Intelligence amplified our primary emotions by making the underlying cognitive activating appraisals more intensive, extensive, and adding a temporal dimension-The Amplification Effect
- Anxiety and depression as amplified fear and sadness, respectively
- Secondary emotions likely arise from this amplification process

#### THE AMPLIFICATION EFFECT

- Mutually reinforcing cognitions and emotions amplify emotional states
- Cognitive activating appraisals perceiving threat trigger feelings of fear and anxiety, creating an emotional climate conducive to the perceptions of threat, and so on and so forth (ex-consequentia reasoning)
- Likewise, cognitive activating appraisals detecting loss produce feelings of sadness, creating an emotional climate facilitating further loss oriented perceptions
- The amplification process is integral to cognitive behavioural therapy models

#### **ANXIETY DISORDERS**

- Heightened limbic system, particularly amygdala, reactivity occurs to threat relevant stimuli
- Mutually reinforcing cognitive and emotional reactions amplify the limbic system arousal both in terms of intensity and duration
- Excessive limbic activity is down-regulated by the PFC, likely in part by weakening or terminating the mutually reinforcing cognitive-emotion cycles; an integrated system working in balance
- In anxiety disorders the system is out of balance with impaired topdown regulation and excessive limbic system activity relevant to threat-related stimuli
- Social Anxiety Disorder patients demonstrate reduced cognitive regulation neural responses in the medial and dorsolateral PFC to social threat stimuli (Goldin et al, 2009)

#### **DEPRESSION**

- As with anxiety disorders, diminished cognitive regulatory control over excessive limbic system derived sadness and related feelings
- For example, compared to non-depressed subjects, depressed subjects demonstrate impaired down-regulation of sadness, making it difficult to overcome depression related emotions (Beauregard et al, 2006)
- Neuroimaging reveals enhanced activation in limbic and emotionrelated structures, and attenuated activity in frontal regions involved in emotion regulation (e.g. Hamilton et al, 2012; Cusi et al, 2012)
- Deficits pertaining to cognitive control might increase with each depressive episode and persist after remission, suggesting a "scar" effect on cognitive regulatory control processes (Vanderhasselt & DeRaedt, 2009)

### COGNITIVE REGULATORY CONTROL THERAPIES: DEPRESSION & ANXIETY

- Activity in the PFC and other regulatory areas is enhanced and limbic system activity is reduced-For example, social anxiety patients who complete CBT have greater PFC responses and reduced amygdala activation (Goldin, 2009)
- Cognitive reappraisal replaces negative cognitions with positive ones
- Adaptive dissociation-Willful detachment, absorption and compartmentalization, suppression therapy, metacognitive therapy
- Cycles of negative cognitions and emotions interrupted or terminated
- Altering the stimulus response association-OCD and phobias
- Applying mature psychological defenses assists in regulating emotions, and cognitive reappraisal helps restore the natural defensive positive spin fostering good mental health

#### HYPOMANIA & MANIA

- Hypomania: A Depressive Inhibition Override Defence Mechanism,
   Journal Of Affective Disorders (Bowins, 2008)
- Hypomania on a 1:1 ratio with depression and typically 1-3 days
- Represents an adaptive compensation for depression enhancing mental, physical, and social behaviour, and certainly relative to depression; probably works by overriding depressive inhibition
- Depression involves high behavioural inhibition (BIS) and low behavioural activation (BAS); hypomania reverses this profile
- Hyperthymia as a personality based expression of hypomania is associated with highly successful functioning, and resistance to depression over much of the life-span

#### HYPOMANIA & MANIA

- Mania-A defence over the edge.
- A spectrum from hypomania to mania with no absolute cut off, but at some point costs > benefits, and hence maladaptive
- Cognitive regulatory control process involved whereby when the costs exceed benefits, and adaptiveness shifts to maladaptive, the defence is down-regulated or terminated
- Effective regulation BPII; defective regulation BPI
- Hypomania rarely progresses to mania, even in those with established manic episodes!
- Hence, hypomania should not be listed as a disorder and BPII eliminated from diagnostic systems

### COGNITIVE REGULATORY CONTROL THERAPIES: BIPOLAR DISORDER

- Assumption: Hypomania is for the most part adaptive, and progression to largely dysfunctional mania involves impaired cognitive regulatory control
- When the costs of the hypomanic defensive response to depression exceeds benefits the hypomanic defence is down-regulated or ceased
- The possibility arises of attempting to bolster this cognitive regulatory process by elevating the cost/benefit analysis to a conscious level
- Patient self-awareness and communication with the treatment provider is essential
- When hypomania is shifting to mania and costs > benefits, strategies established prior to this occurrence are actively engaged
- Spares patients from long-term medication toxicity!

### COGNITIVE REGULATORY CONTROL THERAPIES: BIPOLAR DISORDER

- Psycho-eduction regarding depression, hypomania-mania as a continuum, and how the adaptive benefits of hypomania shift to excessive costs with mania
- Self-awareness regarding the individual's particular symptom pattern with depression, hypomania, and mania
- Ongoing self-monitoring pertaining to depressive, hypomanic, and manic symptoms
- Identifying and working with triggers for the conversion of hypomania to mania
- Engaging in specific strategies pertaining to behaviour, mood regulation, and medication to terminate an evolving manic episode; patient example

#### SCHIZOPHRENIA & PSYCHOSIS

- A Cognitive Regulatory Control Model Of Schizophrenia, Brain Research Bulletin (Bowins, 2011)
- Examines how positive and negative symptoms interact
- Positive symptoms-psychosis; negative symptoms-basic cognition (executive functions), social cognition, and motivation
- Typical or universal pattern is a lengthy prodrome of negative symptom development followed by psychosis
- Psychosis consists of extreme cognitive distortions (thought content), thought form variants, and sensory-perceptual experiences; part of a continuum from mild to extensive derived from the evolution of human intelligence

#### SCHIZOPHRENIA & PSYCHOSIS

- Extreme cognitive distortions, thought form variants, and sensoryperceptual experiences are reality incongruent, and hence maladaptive when expressed in the conscious and awake state
- A regulatory mechanism likely blocks psychotic expressions from the conscious and awake state, to facilitate reality congruency necessary for adaptive functioning
- During sleep when reality congruency is not a concern the regulatory mechanism is relaxed and psychotic equivalents expressed in dreams
- To facilitate defensive functioning the cognitive regulatory processes can be relaxed (for example, hallucinations during grieving)
- The disease process/s damaging human specific cognitive abilities producing negative symptoms, likely damages or impairs the relevant cognitive regulatory controls, thereby producing psychosis

### COGNITIVE REGULATORY CONTROL THERAPIES: PSYCHOSIS

- Assumption-Psychotic level cognitive distortions, thought form variants, and sensory-perceptual experiences are regulated so that they are not expressed in the conscious and awake state
- Psychotherapeutic strategies can compensate for or partially restore the deficient cognitive regulation of psychotic thought processes
- Strategies focus almost exclusively on cognitive distortions (thought content); even for hallucinations beliefs regarding the perception are emphasized
- Normalization of psychotic level beliefs, shifting them to a more moderate level, is a crucial theme of CBT for psychosis
- The delusion is never directly challenged to ensure a good therapeutic alliance

### COGNITIVE REGULATORY CONTROL THERAPIES: PSYCHOSIS

- Have the patient provide evidence for a delusional belief; an assumption of CBT for psychosis is that beliefs, even delusional, are not fixed but occur on a continuum of conviction
- Insufficient evidence for a belief facilitates doubt opening the door to an altered perspective
- Generating alternative explanations for an occurrence is a key strategy; often the person assumes there is only one option
- Group CBT is particularly effective for persecutory beliefs that are often rigidly adhered to in a one-to-one format (Landa et al, 2006)
- Alternative explanations dilute the psychotic level one, and suggest the feasibility of other perspectives, thereby normalizing the cognitive distortion

### COGNITIVE REGULATORY CONTROL THERAPIES: PSYCHOSIS

- Teaching a patient to inhibit inappropriate expressions of sexual and aggressive urges, related to poor self-regulation, can further enhance cognitive regulatory control over behaviour
- Auditory hallucinations as external self-talk; taking ownership
- Stress-diathesis model; working with stressors
- Delusions as extremes of normal thought; analyzing the content
- Via the various CBT strategies cognitive regulatory control over psychotic thoughts, behaviour, and perceptions is strengthened
- Combining psychotherapy with antipsychotic medication typically improves the overall outcome
- Appropriate patient selection is crucial; self-aware and motivated individuals can do very well; example provided

#### PERSONALITY DISORDERS

- Personality Disorders: A Dimensional Defense Mechanism Approach,
   The American Journal Of Psychotherapy (Bowins, 2010)
- A continuum from normal to abnormal personality
- However, normal personality dimensions, such as the Big 5, do not extend to abnormal personality-A major dilemma!
- Model-Defensive processes that are adaptive in a milder form become maladaptive when expressed in an extreme and enduring fashion
- Parsimonious, links normal and abnormal personality, and provides effective treatment strategies
- Brief examples of Avoidant Personality Disorder and Narcissistic Personality Disorder

#### PERSONALITY DISORDERS

- Impaired regulation likely plays a role in how milder and adaptive defensive styles progress to extreme and enduring
- Regulation a key issue in Borderline Personality Disorder (BPD)
- With BPD immature defense mechanisms (acting out, splitting, idealization/devaluation etc) become fixed due to trauma during childhood or adolescence
- In addition, the regulation of defense mechanisms is deficient,
   seemingly being arrested at the maturation level when the trauma/s
   occurred
- Immature defense mechanisms are also common in other personality disorders

### COGNITIVE REGULATORY CONTROL THERAPIES: PERSONALITY DISORDERS

- Restore appropriate regulation by shifting extreme and enduring expressions of defensive processes to a milder and adaptive form
- Replacing immature psychological defense mechanisms with mature ones helps to regulate emotions and behaviour
- Psycho-education pertaining to psychological defense mechanism types, their role in regulating emotions and behaviour, and the ones preferentially used by the individual
- Self-monitoring is essential to understand the defenses used, contributing circumstances, and the outcome of their use
- Guided instruction in how to apply mature defenses and also assessing the outcome of using them

### COGNITIVE REGULATORY CONTROL THERAPIES: PERSONALITY DISORDERS

- Improvement in BPD clearly involves a shift from immature to mature defenses (Perry & Bond, 2012)
- Directly instruct and coach patients with BPD in how to apply mature defenses using patient-therapist interactions, group interactions (if group therapy), and other experiences as examples; sublimation, suppression, and humour are particularly useful
- Restore effective regulation of defense mechanisms in BPD by modelling mature and healthy regulation
- Working with transference can also assist in improving the regulation of defense mechanisms, and fostering the development of more mature defenses

### COGNITIVE REGULATORY CONTROL THERAPIES: SUMMARY

- Impaired cognitive regulatory control plays a major role in mental health conditions, including anxiety disorders, depression, bipolar disorder, psychosis, and personality disorders
- Excessive limbic system activity related to deficient cortical regulation is a robust finding with anxiety and depression
- Cognitive behavioural and related psychotherapy techniques can restore cognitive regulatory control-The success of these techniques probably aligns with this capacity
- Focusing on deficient cognitive regulation and applying psychotherapeutic strategies designed to bolster it, represents a parsimonious and humanistic way to help patients

### AT THE TIPPING POINT: HOW TO SAVE US FROM SELF-DESTRUCTION

- At The Tipping Point: How To Save Us From Self-Destruction (Brad Bowins, 2014), examines, amongst other self-destructive forces, the crucial role of regulation and deregulation in the stability of society
- Extends the crucial role of biological and psychological regulation to man-made regulation

### How to Save Us From Self-Destruction

**Brad Bowins, M.D.** 

Collectively we are engaging in self-destructive behavior, compromising our present and jeopardizing our future. Rampant greed, irregular regulation, unrestrained urban and resource development, out of control global warming, biased pharmaceutical and biotechnology research, and lethal levels of obesity, are all severely damaging us. Dr. Bowins drills down exposing these forms of selfdestruction, and shows why we might be setting ourselves up for widespread revolution and devastation. Also revealed is how our psychological defense ironically perpetuate major forms of self-destructive behavior. We have reached the tipping point, but the solutions proposed can save us from self-destruction, if we take action.

Dr. Bowins is a psychiatrist and researcher heading the Center For Theoretical Research in Psychiatry & Clinical Psychology. As a theoretical researcher he has published novel theories, and as a clinician has treated many forms of selfdestructive behavior. From extensive experience with patients negatively impacted by the global economy, exposure to many environmental concerns, and in-depth research, it became evident that we are all engaging in self-destructive behavior. In line with his clinical experience, Dr. Bowins provides solutions that can save us from self-destruction, and motivates each of us to take action because significant change starts with the individual.

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**Brad Bowins, M.D** 

# How to Save Us From Self-Destruction DEAD TIPPING POINT **Brad Bowins, M.D.**

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