CBT for Substance Use Disorders and Addictions

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Disclosure

Dr. Liese has co-authored three textbooks with Dr. Aaron T. Beck (published by Guilford Press), including the most recent *Cognitive-Behavioral Therapy of Addictive Disorders* (2022). He receives royalties for the sale of these books.

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Objectives

1. List at least three different CBTs and describe similarities and differences between them
2. Describe at least three misconceptions of CBT that have developed over more than four decades
3. Explain how misconceptions of CBT have contributed to problems in learning and practicing CBT
4. Describe CBT content and process with emphasis on their relevance to therapy success and failure
5. Conduct structured CBT case conceptualizations and describe implications for treatment

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Objectives

6. Relate at least two cognitive science constructs to the practice of CBT (e.g., attention, executive functions, heuristics, biases, etc.)
7. Describe System 1 and System 2 thinking
8. Relate System 1 and System 2 thinking to the practice of CBT, especially while working with diverse populations
9. Describe the structure of individual CBT sessions
10. Describe the structure of group CBT sessions

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Agenda – Day 1

9:00-10:30 am	Overview of workshop; hopes and expectations; CBT process and content
10:30-10:45 am	Break
10:45-12:00 pm	The five components of CBT
12:00-1:00 pm	Lunch
1:00-2:30 pm	Case conceptualization (Part 1)
2:30-2:45 pm	Break
2:45-4:00 pm	Case conceptualization (Part 2)

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Agenda – Day 2

9:00-10:30 am	Cognitive science relevant to CBT (e.g., cognitive effort; System 1 & 2 thinking, etc.)
10:30-10:45 am	Break
10:45-12:00 am	Individual CBT structure
12:00-1:00 pm	Lunch
1:00-2:30 pm	Specific CBT techniques
2:30-2:45 pm	Break
2:45-4:00 pm	Practice with CBT techniques

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Agenda – Day 3

9:00-10:30 am	Group CBT: Part I – Structure and process
10:30-10:45 am	Break
10:45-11:45 am	Group CBT: Part II – Structure and process
11:45-12:00 pm	Summary and wrap-up

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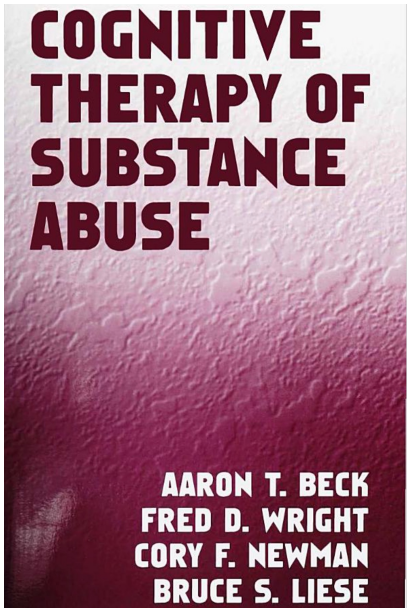
Back in 1993…



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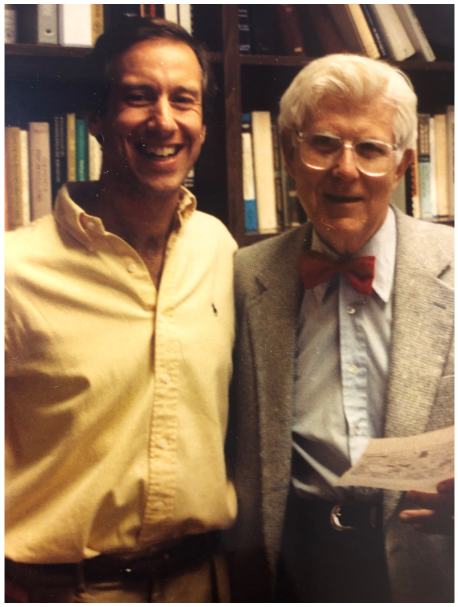
Back in 1993…



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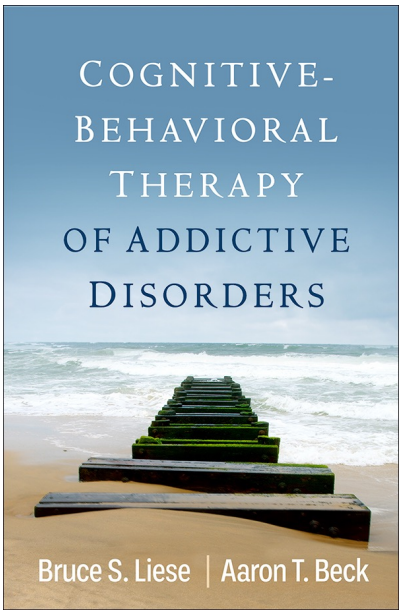
Addictions in the early 90s…

- Cocaine epidemic (crack) "Greatest threat to the United States"
- Stigmatizing labels like *drug addict* and *alcoholic* were common
- Stereotypes were everywhere; addiction attributed to or associated with race, religion, social class, etc.
- DSM-IV (published January 1, 1994) – diagnoses were Substance abuse and dependence (dichotomous, included legal problems)
- Each addiction considered unique, different, some stereotyped
- The aims of treatment were abstinence and relapse prevention; the focus was to on avoiding or stopping acute episodes of use

In 2022…



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DSM-5 Substance-Related and Addictive Disorders

- DSM-IV (1994-2013) addictions were categorized as *Substance Abuse and Dependence*. No mention of behavioral addictions
- DSM-5: *Substance-Related and Addictive Disorders*
- *Continuous scale* introduced: mild (2-3 criteria), moderate (4-5 criteria), and severe (6 or more criteria)
- Term *addictive disorders* added; abuse and dependence removed
- *Craving* was added; Legal problems removed
- *Gambling* added as first behavioral addiction
- *Internet gaming disorder* added to Section III

DSM-5 Substance Use Disorder Criteria

1) Larger amounts or more time than intended
2) Persistent desire, unsuccessful efforts to reduce or stop
3) Time spent using or seeking
4) Craving
5) Use despite neglect of responsibilities
6) Continued despite problems
7) Social, vocational, recreational activities discontinued
8) Physically dangerous situations
9) Use despite knowledge of problems
10) Tolerance
11) Withdrawal

Ten Classes of Drugs

1) Alcohol
2) Caffeine
3) Cannabis
4) Hallucinogens
5) Inhalants
6) Opioids
7) Sedatives, anxiolytics
8) Stimulants
9) Tobacco
10) Other

Six Core Components of Addiction

1. Salience – Importance; dominates thoughts, feelings, behaviors (Salience likely to increase with abstinence)
2. Mood modification – Addictive behavior induces a desired state, for example:
   a. Relief from emotional discomfort, pain, craving
   b. Increase in pleasant feelings, stimulation, calm, etc.
3. Tolerance – Increase needed for same effect

Griffiths, M. (2005). A 'components' model of addiction within a biopsychosocial framework. *Journal of Substance Use, 10*(4), 191-197.

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Six Core Components of Addiction

4. Withdrawal symptoms – Unpleasant feelings and physical effects when activity is stopped or reduced
5. Conflict – Intrapersonal discomfort (e.g., anxiety, depression, guilt, shame, desparation); Interpersonal relationship problems
6. Relapse – Repeated slips or lapses and and a return to addictive behavior

Griffiths, M. (2005). A 'components' model of addiction within a biopsychosocial framework. *Journal of Substance Use, 10*(4), 191-197.

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What is CBT?

- Cognitive Therapy (CT)
- Rational Emotive Behavior Therapy (REBT)
- Acceptance and Commitment Therapy (ACT)
- Behavioral Activation (BA)
- Community Reinforcement and Family Therapy (CRAFT)
- Dialectical Behavior Therapy (DBT)
- Contingency Management (CM)
- Mindfulness-Based Cognitive Therapy (MBCT)
- Exposure and Response Prevention (ERP)

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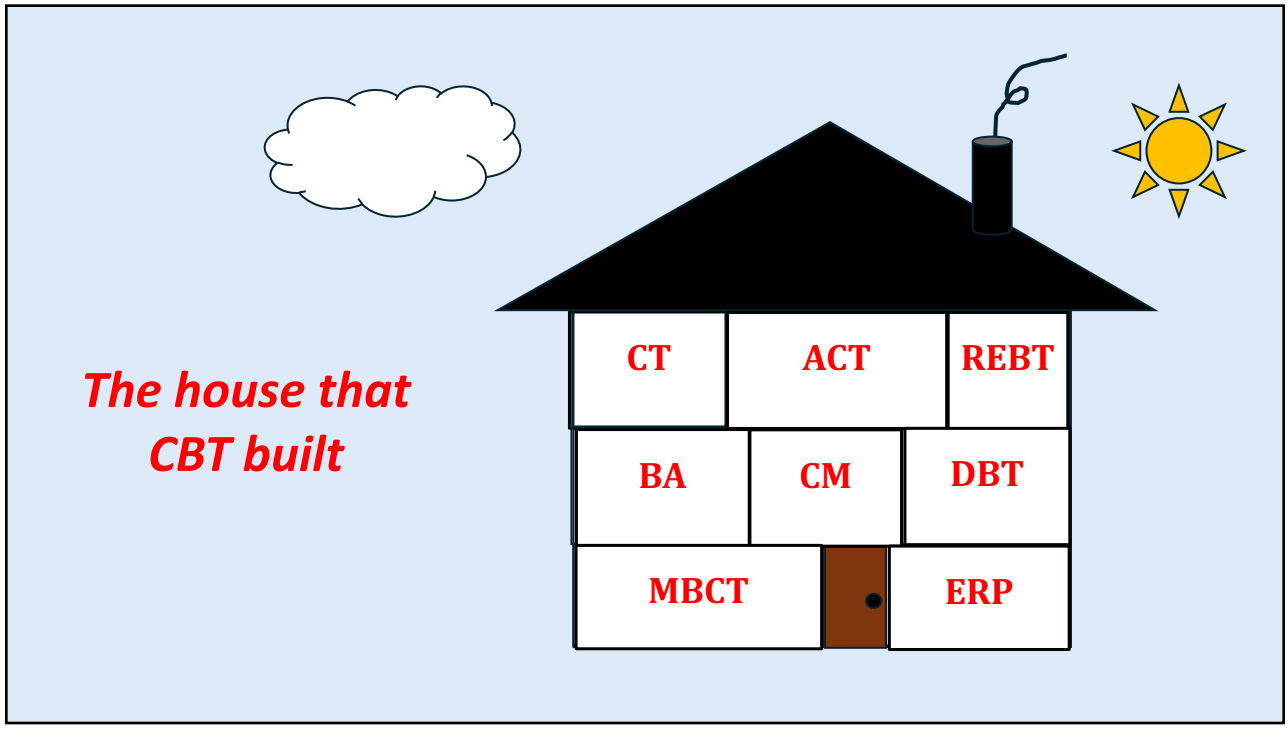

CBT Content and Process

- Content: ***What*** is to being discussed for the purpose of facilitating change
- Process: ***How*** change is facilitated in session (e.g., interpersonal and intrapersonal dynamics)

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Presenting problems and symptoms provide *content*

Addictive disorders

Depression

Anxiety

Anger, aggression

Loneliness

Eating disorders

Family problems

Marital problems

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The impact of theoretical orientation on content

ACT	Psychological flexibility, acceptance, commitment
DBT	Emotion regulation, distress tolerance, surviving crises, mindfulness
BA	Values and corresponding behaviors
REBT	Maladaptive thoughts, cognitive distortions
CT	Schemas, basic beliefs, conditional beliefs, ATs
ERP	Exposure and response prevention
MBCT	Mindfulness, awareness, being present

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CBT *process*: The five essential components

1. Structure
2. Collaboration/alliance
3. Case conceptualization
4. Psychoeducation
5. Standardized techniques

Liese & Beck (2022). *Cognitive-Behavioral Therapy of Addictive Disorders*. NY: Guilford Press.

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CBT case conceptualization

- Collection and integration of clinically relevant information as an iterative process
- Identification of problems and change targets
- Ongoing, ever-evolving hypothesis formulation and testing
- Influenced by therapist's "home" theory, as well as professional and personal life experiences
- Vital to therapy; everything else depends on it
- Requires substantial effort

Liese & Beck (2022). *Cognitive-Behavioral Therapy of Addictive Disorders*. NY: Guilford Press.

CBT case conceptualization

1. Primary problems: Addictive behaviors, emotion dysregulation, etc.
2. Social/environmental/cultural context: Current living situation; close relationships; sociocultural factors; economic circumstances; legal or safety concerns; SDoH; community norms and expectations
3. Distal antecedents: Neurobiological, genetic, cultural, family, community, environmental influences

Liese & Beck (2022). *Cognitive-Behavioral Therapy of Addictive Disorders*. NY: Guilford Press.

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CBT case conceptualization

4. Proximal antecedents: Current internal and external cues, triggers, circumstances, situations, physical states
5. Cognitive processes: Relevant schemas, beliefs, thoughts; cognitive distortions; values, principles
6. Affective processes: Predominant emotions, feelings, moods, physiologic sensations
7. Behavioral patterns: Adaptive versus maladaptive behaviors; coping versus compensatory strategies

Liese & Beck (2022). *Cognitive-Behavioral Therapy of Addictive Disorders*. NY: Guilford Press.

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CBT case conceptualization

8. Readiness to change and associated goals: Precontemplation, contemplation, preparation, action maintenance
9. Integration of the data: Salient processes and patterns; causal relationships between context, thoughts, feelings, behaviors
10. Implications for treatment: strategies and techniques, based on data and hypotheses

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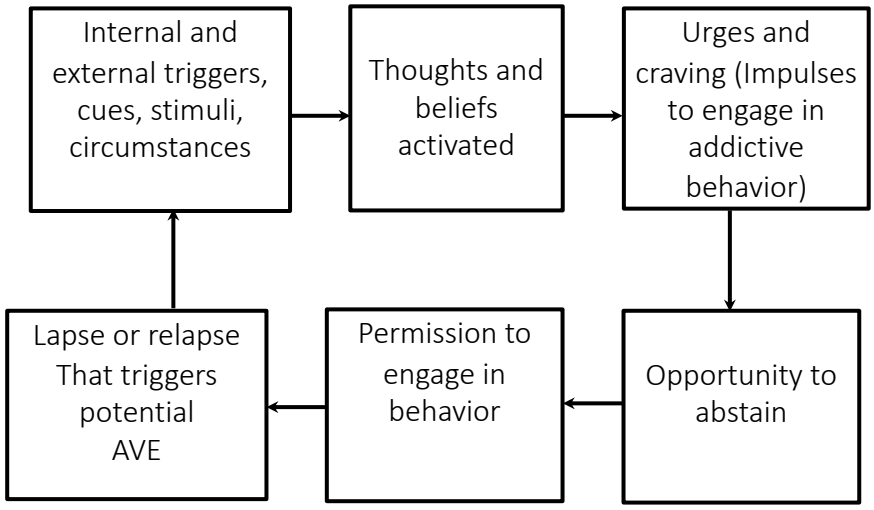
CBT model for understanding addictive behaviors



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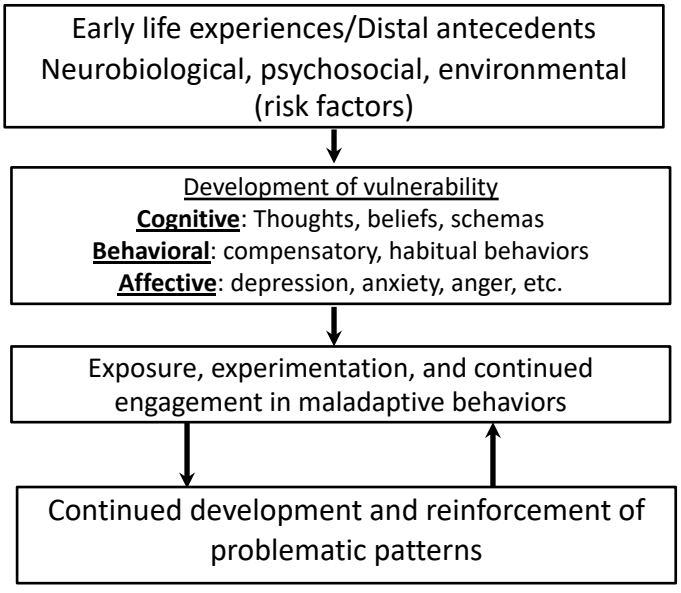
Development of addictive behaviors



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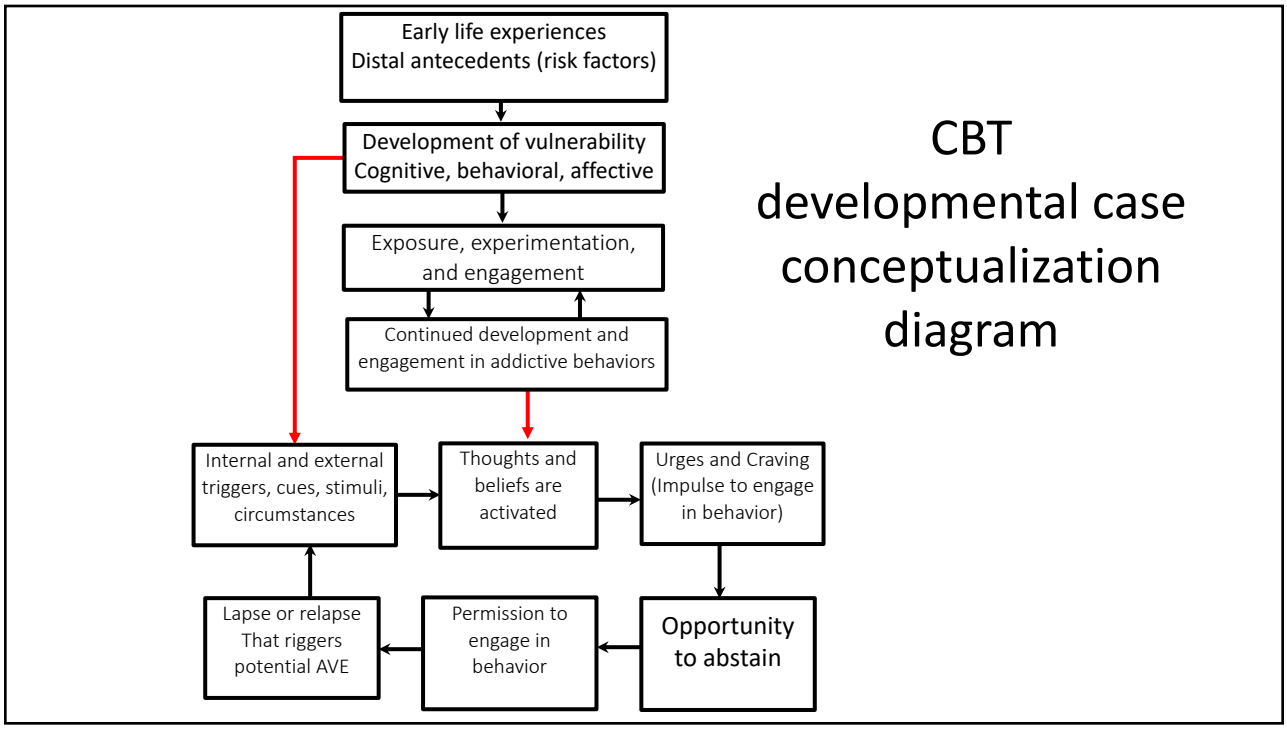

Cognitive science constructs relevant to CBT

- Attention
- Executive functions
- Cognitive effort (ease vs. strain)
- Dual processes (e.g., system 1 and System 2 thinking)
- Heuristics and biases
- Intuition and expertise

Liese & Beck (2022). *Cognitive-Behavioral Therapy of Addictive Disorders*. NY: Guilford Press.

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Executive functions

- Mental processes necessary for planning, regulating, organizing, self-managing, and making personal changes
- They are effortful
- At least three core functions:
  1. Inhibitory control
  2. Cognitive flexibility
  3. Working memory

Diamond, A. (2012). Executive functions. *Annual Review of Psychology, 64*, 135-168.

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Inhibitory control (self-control)

- Maintains necessary attention, behavior, thoughts, emotions, to accomplish desired goals
- Suppresses cognitive interference (inhibits extraneous mental images; selectively attends to important matters)
- Overrides strong impulses; makes pattern change possible
- Suspension of preconceived thoughts, beliefs is necessary for collaboration, change

Diamond, A. (2012). Executive functions. *Annual Review of Psychology, 64*, 135-168.

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Cognitive flexibility

- "Changing perspectives or approaches to problems, flexibly adjusting to new demands, rules, or priorities"
- Shifting attention from one task to another, as needed
- Empathy (perspective-taking) involves inhibiting one's own perspective and loading another's into working memory (overlaps with imagination and creativity)

Diamond, A. (2012). Executive functions. *Annual Review of Psychology, 64*, 135-168.

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Working memory

- Holds multiple thoughts, ideas in memory and organizes them so they can be acted upon in a goal-directed manner
- Appraises and reappraises ideas, to make decisions and plans
- Not the same as short-term memory; uses dorsolateral PFC
- Requires inhibitory control and cognitive flexibility

Diamond, A. (2012). Executive functions. *Annual Review of Psychology, 64*, 135-168.

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Cognitive effort

- Executive functions require cognitive effort
- Cognitive effort varies depending on load placed on it
- Simple functions place little load on individuals: *ease*
- Complex functions place heavy loads on individuals: *strain*
- Cognitive strain is experienced as work, effort, demanding
- People tend to minimize cognitive effort; we make snap judgments and rely on intuition

Kahneman, D. (2011). *Thinking Fast and Slow*. New York: Farrar, Straus and Giroux.

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System 1 thinking

- Automatic, fast, effortless, involuntary, intuitive (scans)
- Generates impressions, feelings, judgments
- Biased to believe and confirm, suppress doubt
- Focuses on existing evidence; ignores absent evidence
- Responds more strongly to losses than gains (aversion)
- Seeks simple answers (i.e., heuristics) to complex questions and substitutes easy for difficult ones
- When System 1 thoughts are reinforced, they become core beliefs

Kahneman, D. (2011). *Thinking Fast and Slow*. New York: Farrar, Straus and Giroux.

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System 2 thinking

- Effortful, deliberate, intentional, reflective, slow
- Activated when cognitive load too much for System 1
- Searches memory
- Associated with attention, concentration, agency, choice
- Works by asking and answering questions
- Not the same as intelligence; more related to rationality
- Many people assume that their System 2 is in charge

Kahneman, D. (2011). *Thinking Fast and Slow*. New York: Farrar, Straus and Giroux.

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Heuristics

- System 1 short cuts that ease cognitive load
- Typically helpful, but not always
- Numerous categories, including:
  - Availability – first thoughts, most easily accessed
  - Representativeness – assigns membership to categories
  - Framing – How stories are told influences perspective
  - Affect – Emotional reasoning; good feelings associated with cognitive ease; bad feelings associated with cognitive strain
  - Anchoring – The information first presented may have disproportionate influence on impressions

Kahneman, D. (2011). *Thinking Fast and Slow*. New York: Farrar, Straus and Giroux.

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Cognitive bias

- When heuristics are employed, cognitive biases are inevitable and they can take multiple forms
- Heuristic categories provide insight into cognitive biases:
  - Availability – What you see is all there is (WYSIATI)
  - Representativeness – Categories may be chosen erroneously
  - Framing – Underemphasizing or overemphasizing essential facts
  - Affect – Just because it feels right/wrong doesn't mean it is
  - Anchoring – The first facts or ideas may be least important

Kahneman, D. (2011). *Thinking Fast and Slow*. New York: Farrar, Straus and Giroux.

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Bias in mental health providers

- Mental health professionals in private practice (n=129)
- 60% women; 12 psychiatrists, 34 psychologists, 28 professional counselors, 37 clinical social workers, 18 marriage and family therapists
- On average, viewed skills to be at the 80th percentile
- Modal rating 75th percentile; none below 50th percentile
- On average, believed 77% of their patients improved; 3.66% deteriorated; 21% thought 90% of their patients improved

Walfish, S. (2012). An investigation of self-assessment bias in mental health providers. *Psychological Reports, 110*(2), 639-644.

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Overconfidence

- Overconfidence occurs in System 1
- "When we don't know what we don't know."
- Likely related to loss aversion; we "fabricate and revise history," and our egos conserve what we like about ourselves (Greenwald, 1980; p.604)
- The confidence:competence ratio is important
- Too much confidence results in arrogance (Grant, 2021)
- Too little may result in insecurity, avoidance, passivity
- It's important to know what you don't know

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The Dunning-Kruger effect

- When people are blind to their own ignorance
- Meta-ignorance: Ignorance of ignorance; unknown unknowns
- Dunning argues:
  - Ignorance is prevalent in everyday life
  - Ignorance is often invisible to those who suffer from it
- The first rule of the Dunning-Kruger Club is you don't know you're a member of the Dunning-Kruger Club (Grant, 2021; p. 40)

Dunning, D. (2011). The Dunning-Kruger effect: On being ignorant of one's own ignorance. *Advances in Experimental Social Psychology, 44*, 247-296.

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Individual CBT structure

- Agenda
- Mood
- Bridge (including review of homework)
- Prioritize and discuss items
- Guided discovery/motivational interviewing/functional analysis
- Facilitate skill development
- Provide and receive feedback
- Homework

Liese & Beck (2022). *Cognitive-Behavioral Therapy of Addictive Disorders*. NY: Guilford Press.

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Group CBT structure

- 90-minute sessions (more time if necessary)
- 5-8 members with addictions, comorbid conditions, and associated life problems
- Open, rolling enrollment
- Compatible with other approaches (e.g., mutual help groups, individual therapy)
- Member goals variable (e.g., abstinence, harm reduction, improved relationships, employment, etc.), dependent on problems and readiness to change

Liese & Beck (2022). *Cognitive-Behavioral Therapy of Addictive Disorders*. NY: Guilford Press.

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Group CBT structure

- Facilitator introductions (including rules, basic features of group)
- Member introductions – addictive behavior, status of addictive behavior, goals, other problems
- Cognitive and behavioral strategies - based on needs of group members
- Homework – review old and assign new
- Closure

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Group member introductions

Name	Primary problem	Status of primary problem	Goal(s)	Other issues
Joe	Alcohol	Controlled drinking	"Don't get drunk again"	Unemployed
Mary	Marijuana	Abstinent	"Abstinence"	Anxiety
Sarah	Binge eating	Daily binge eating	"Healthy eating"	Medical problems
Ben	Gambling	Abstinent	"Only on special occasions"	Bipolar illness
Ann	Smokes 1.5 pack/day cigarettes	Lives with boyfriend who smokes	"I'm just not ready to quit"	"My children hate my boyfriend!"
Bill	Cocaine	"Out of control" Recently visited crack house	"Stop my self-destructive behavior"	Wife divorcing him

Group psychotherapy therapeutic factors

1. Instillation of hope
2. Universality
3. Imparting information
4. Altruism
5. Corrective recapitulation of family of origin issues
6. Developing social skills
7. Imitative behavior
8. Interpersonal learning
9. Group cohesiveness
10. Catharsis
11. Existential factors

Yalom, I. D. & Leszcz, M. (2020). *Theory and practice of group psychotherapy* (6th ed.). NY: Basic Books

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Group CBT inclusion and exclusion criteria

- Inclusion criteria:
- Openness to psychotherapy
- Desire to share and receive feedback in a group setting
- Willingness to take responsibility for addictive behavior & other problems
- At least contemplating change
- Willingness to follow group rules
- Exclusion criterion: Disruptive or distracting to group

Liese & Beck (2022). *Cognitive-Behavioral Therapy of Addictive Disorders*. NY: Guilford Press.

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Group CBT rules

- Strict confidentiality
- No clique formation or outside meetings
- No advice
- Personalize (vs. philosophize): "I" statements rather than "You" or "People…"
- Respect others
- No defensiveness

Liese & Beck (2022). *Cognitive-Behavioral Therapy of Addictive Disorders*. NY: Guilford Press.

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Specific CBT techniques

- Functional analysis
- Motivational interviewing
- Stimulus management
- Delay and distract
- Advantages-disadvantages analysis
- Hierarchy of values
- Activity monitoring and scheduling
- Behavioral activation
- Automatic thought records
- Acceptance and commitment
- Relaxation training
- Mindfulness and meditation training
- Contingency management
- Role playing

Liese & Beck (2022). *Cognitive-Behavioral Therapy of Addictive Disorders*. NY: Guilford Press.

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Automatic Thought Record (ATR)

Date and Time	Situations	Emotions (0-100)	Automatic thoughts or related beliefs (0-100%)	Alternative thoughts, beliefs, or responses (0-100%)	New Emotions (0-100)

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Advantages-Disadvantages Analysis

	Engage in addictive behavior	Stop addictive behavior
Advantages	• *Relief from tension* • *Have fun* • *Forget my problems* • *Win back money*	• *Feel better about myself* • *Get family off my back* • *Improve my health* • *Stay out of jail*
Disadvantages	• *No relief from tension* • *No fun* • *Face my problems* • *Keep losing money*	• *Painful craving* • *Face failure again* • *No other coping skills* • *Lose friends*

Liese & Beck (2022). *Cognitive-Behavioral Therapy of Addictive Disorders*. NY: Guilford Press.

CBT homework

- All psychotherapy requires homework
- Assignments to be determined collaboratively
- In group therapy, other members are likely to provide ideas for homework
- May be related to addictive behavior but often involves general coping skills (may be cognitive, behavioral, relational)
- Review of homework is essential
- Conceptualizing noncompletion of homework is also essential

Liese & Beck (2022). *Cognitive-Behavioral Therapy of Addictive Disorders*. NY: Guilford Press.

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Meaningful change is difficult and complex.

Patients initiate and attend CBT to:

- Make meaningful, substantial behavior changes
- Feel *less* sad, worried, angry; *more* happy, content
- Improve coping skills
- Get out of legal trouble
- Repair broken relationships (e.g., get their kids back)
- Better understand their personal world
- Stop feeling so alone
- End the pain they associate with living

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What makes CBT effective?

- Some patients benefit from highly structured therapy
- Some benefit from unstructured therapy
- Some benefit from directive therapists
- Some benefit from nondirective therapists
- Some benefit from a close therapeutic relationship; others only seek solutions or relief from their problems
- Some benefit from standardized techniques; others prefer much less formal self-exploration
- Implication: therapist flexibility, range are essential

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One size does not fit all patients

- Some patients benefit from changing problematic thoughts
- Some find the process of acceptance more appealing
- Some need to activate and commit to valued behaviors
- Some prefer contingent rewards along the way
- Some benefit from becoming more mindful; others say: “I tried. It doesn’t work for me.”
- Some benefit from progressive exposure to their addictive triggers; others say, “I can’t handle being around my triggers.”

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Clues suggesting that therapy isn't working:

- Patients, apparently committed to change, repeatedly relapse
- Patients continually describe barriers to change
- Patients don't do homework they genuinely want to do
- Patients say they can't think of anything to work on
- They miss sessions or regularly come late to them
- They seem disinterested or detached during sessions
- Therapists feel bored, frustrated, or detached during sessions

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Patient factors that may influence outcome

- The perception that their problems don't warrant change, or they feel ambivalent about change
- They have entered treatment against their will
- They engage in addictive behaviors to manage suffering
- Negative views (i.e., mistrust) of therapy or therapists
- Insurmountable impairment (lack of personal resources)
- Lack of material or financial resources or options
- They feel shame; fear of judgment (stigma)
- Unsatisfying experiences with past professionals
- Overlearned schemas, thoughts, beliefs, behaviors

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Therapist factors that may influence outcome

- Lack of knowledge/clinical skills; limited theoretical range
- Difficulty maintaining focus or distracted listening
- Empathy skills deficits (e.g., sympathizing rather than empathizing)
- Cognitive rigidity (vs. flexibility)
- Negative views regarding certain clinical manifestations
- Lack of intellectual rigor
- Lack of familiarity with clinical disorder
- Personal mental or physical health problems

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