

The Chain Analysis in Dialectical Behavior Therapy

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Seattle, Washington

ANZ ACT Annual Conference
December 2, 2012
Melbourne, Victoria

Elements of Treatment



Charles Schultz

- Assessment
- Treatment
- Measurement of Outcome

DBT Overview

Dialectical Behavior Therapy

Linehan, 1993

- Standard DBT modes & duration
- Client profile
- Outcomes
 - Suicide events & medical risk, hospital days, patient retention, global fx, anger, soc adjustment
 - NOT depression, hopelessness, ideation, reasons for living
- Adaptations
 - RCTs: Sub dependence, PTSD, eating disorders, chronic depression ...adolescents

DBT Target Hierarchy

DECREASE

INCREASE

**Life-
Threatening
Behavior**

**Behavioral
Skills**

**Treatment-interfering
Behavior**

Quality-of-Life-Interfering Behavior

Why Learn About Chain Analysis?

“...the third wave of behavioral and cognitive therapy is particularly sensitive to the context and functions of psychological phenomena, not just their form...”

SC Hayes, 2005

Chain Analysis & Behavioral Assessment Terminology

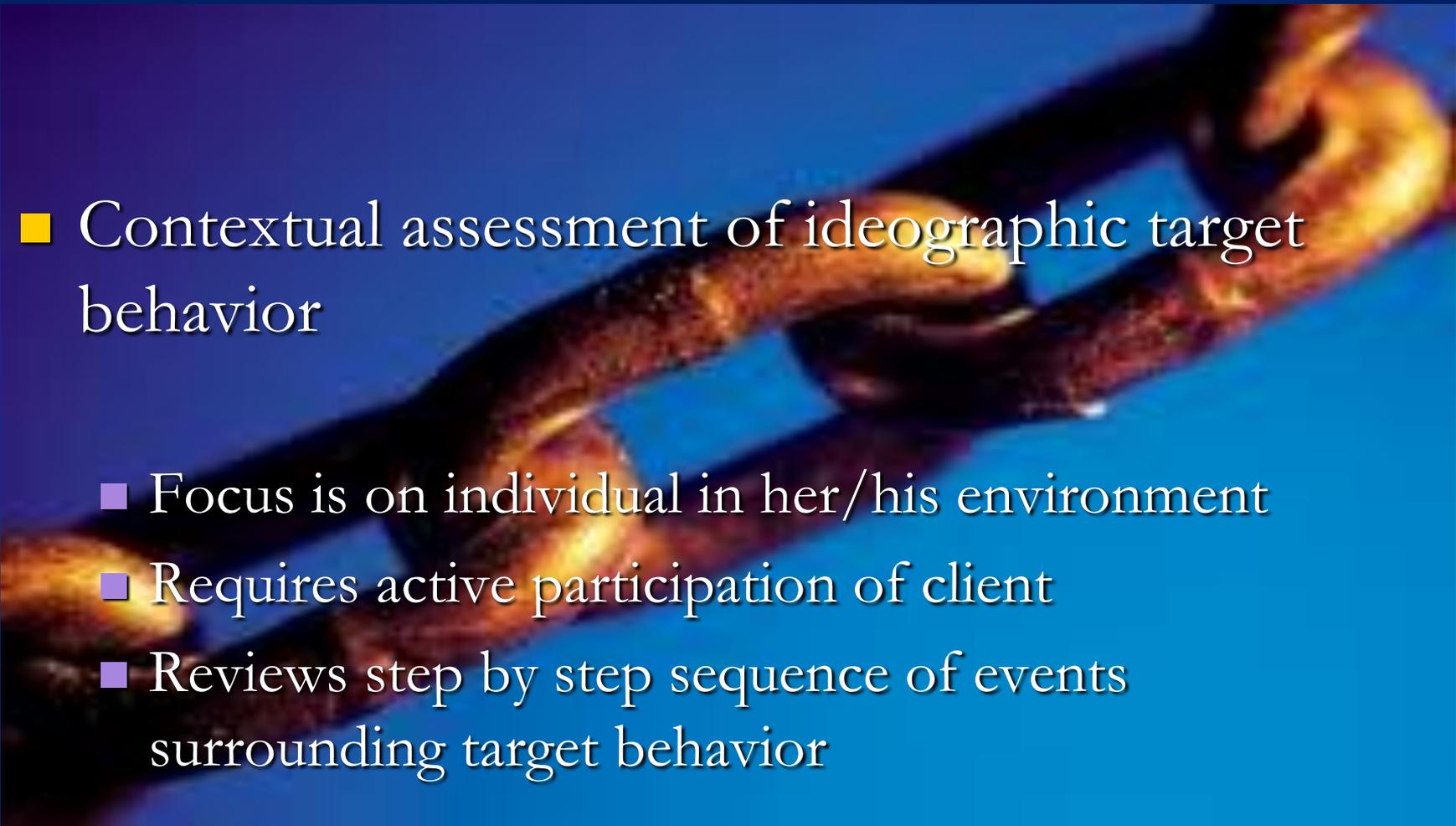
- Behavioral assessment is any objective description of behavior considered controlled by contemporaneous environmental events (Cone, 1997).

Process of identifying controlling variables for target behavior variously called:

- Behavior Analysis
- Functional Analytic Causal Modeling
- Functional Assessment: Activities involved in describing and formulating hypotheses about potentially controlling variables
- Functional Analysis: Testing or verifying hypotheses via systematic manipulation of environmental events.

(Cone, 1997)

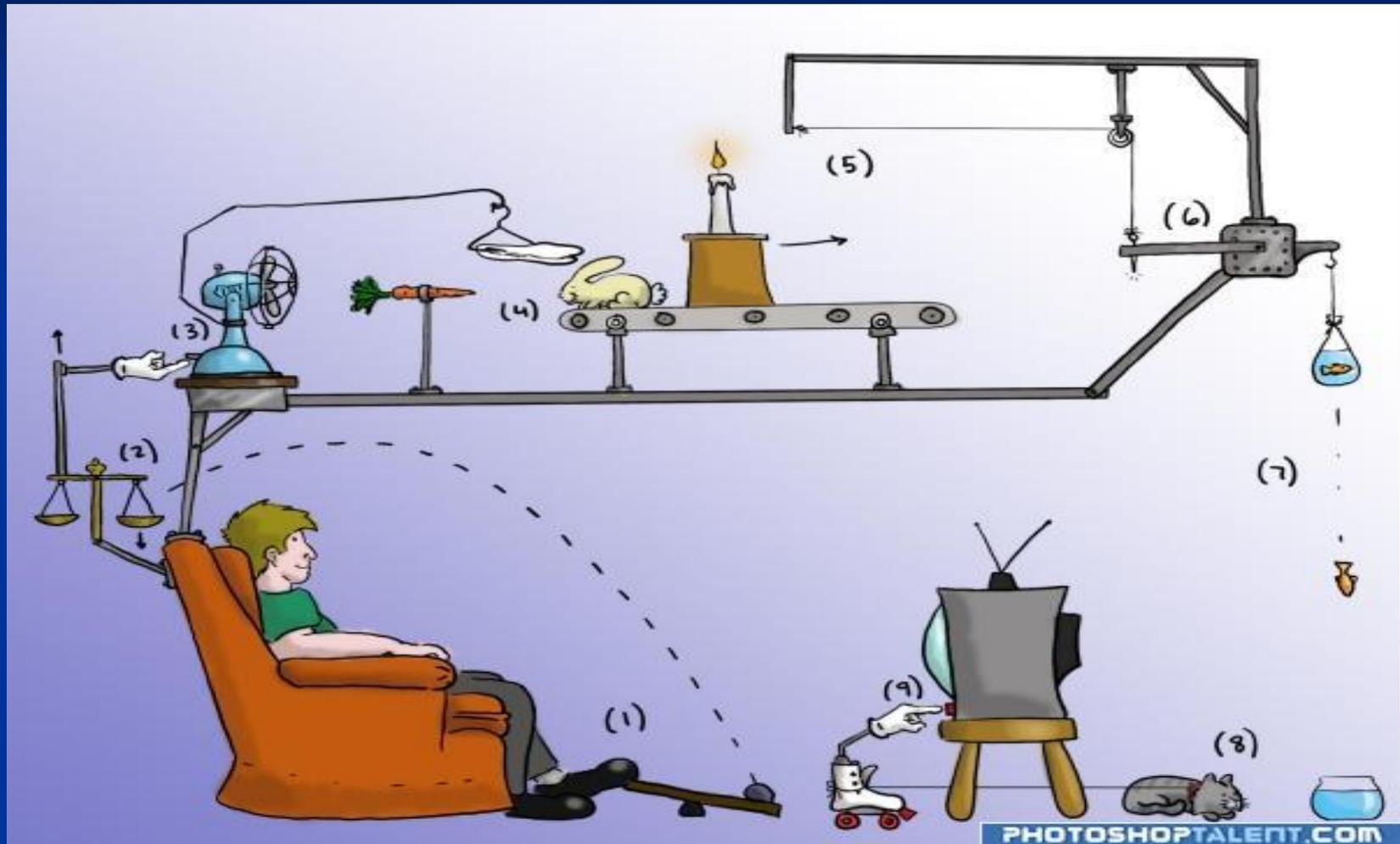
WHAT IS A CHAIN ANALYSIS?

- 
- Contextual assessment of ideographic target behavior
 - Focus is on individual in her/his environment
 - Requires active participation of client
 - Reviews step by step sequence of events surrounding target behavior

The Domino Effect



It's really not that complicated



Assumptions About Behavior

- The acquisition and display of behavior follows laws (is knowable)
- The majority of behavior is controlled* by environmental factors
- Effective treatment requires that controlling variables be correctly identified, and addressed

*at least in part

How is it done?

- Therapist and Patient select one specific target event to analyze (at a time)
- Therapist attends to small units of behavior (links) with attention to defining antecedents and consequences across domains (emotions, bodily sensations, thoughts & images, behavior, environment)
- Therapist maintains Patient's (and own) cooperation
- Therapist generates hypotheses with Patient about variables influencing or controlling the target behavior.

Enough...

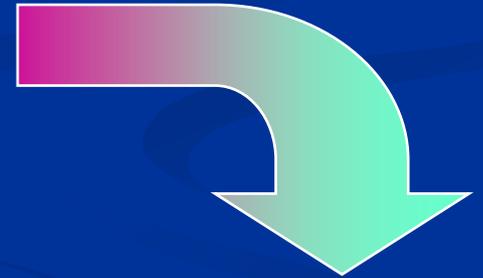
Bring on the model

Basic Behavior Model

'A' ntecedent



'B' ehavíor

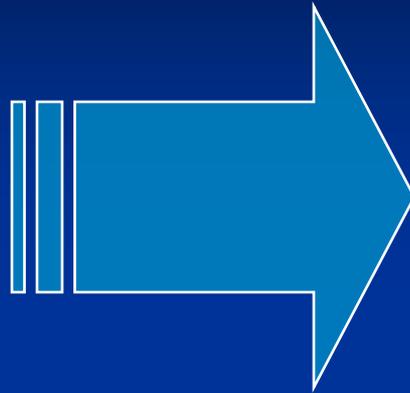


'C' onsequences

Adapted Behavior Paradigm

Vulnerabilities

- Bored
- Lonely
- Friends support the behavior
- Family members model behavior
- History of behavior being reinforced



Cue



Emotion Dysregulation

Cognitive Distortion

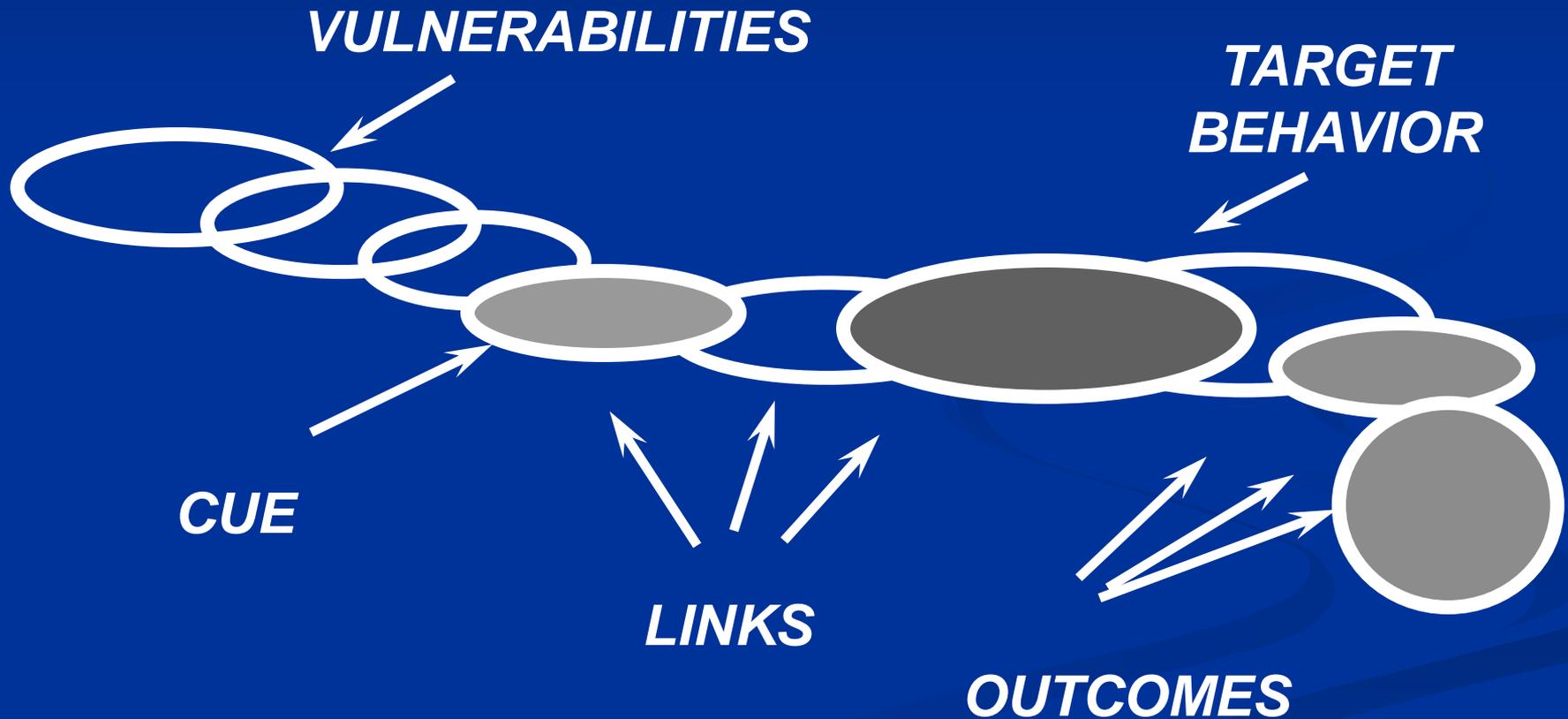


Target Behavior



Outcomes

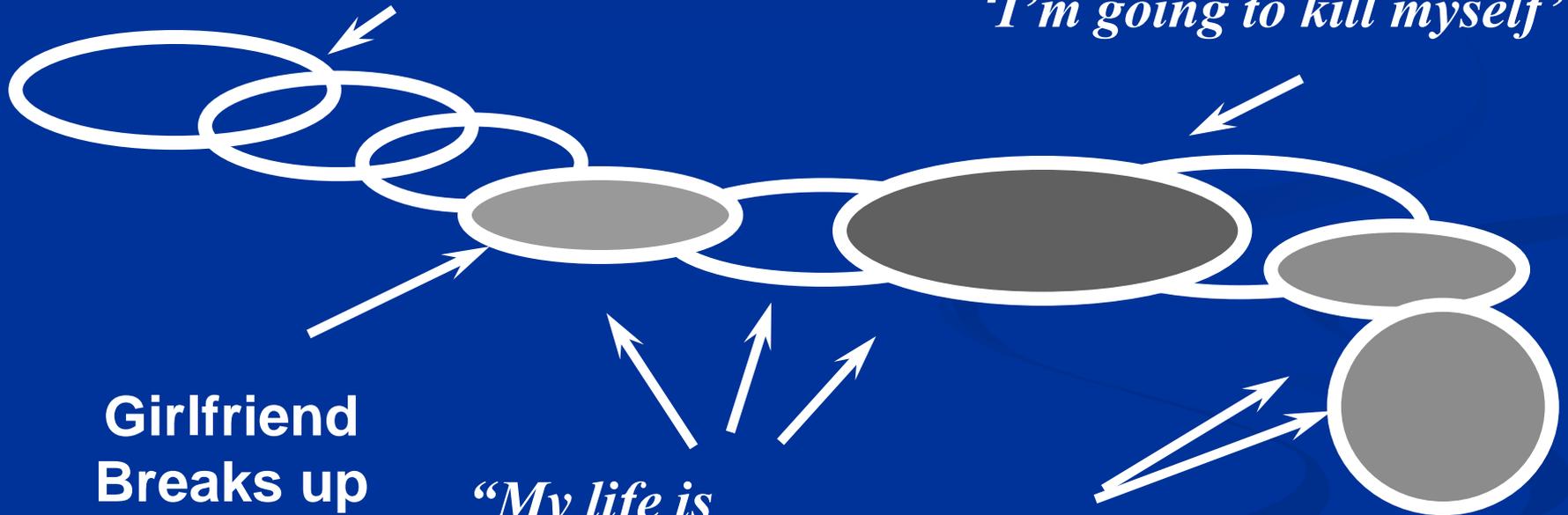
Analyze the chain of events moment-to-moment over time



Analyze the chain of events moment-to-moment over time

Depressed, recently moved to live
near girlfriend, struggling to find
work.

Texts girlfriend
'I'm going to kill myself'



Girlfriend
Breaks up

*"My life is
meaningless – I
am totally alone."*
Sinking feeling.

Girlfriend rushes over,
Agrees to see him again

Chain Analysis Components I: Target Behavior

- Defined: The specific behavior being analyzed
- Typically a behavior that is desired to be reduced in frequency (i.e., ‘maladaptive’ or ‘dysfunctional’ behavior)
- Chain analyses can be done on successful behavior events (e.g., doing well on a school exam; asking for a raise) – to understand variables associated with functional behavior

Chain Analysis Components II: Vulnerabilities

Defined: Conditions that increase the likelihood that the target behavior will follow the presentation of a cue or set of cues.

‘Establishing Operations’ in the literature

Identified consistent with ‘laws of behavior’ –
avoid psychological constructs

Types of Vulnerabilities

- Long-standing physiological predispositions (inherited, environmental)
- Developmental issues (physio, psychological)
- Learning history
- ‘Expectancies’ / Relational Frames / norms
- Current or recent physiological state
- Contextual / situational variables

Chain Analysis Components III & IV: Cues & Links

Cue: An event occurring outside the individual that ‘starts the ball rolling’ toward the target behavior (Linehan, 1993)

Links in the chain:

- Actions
- Thoughts
- Emotions
- Physical sensations or responses
- Events

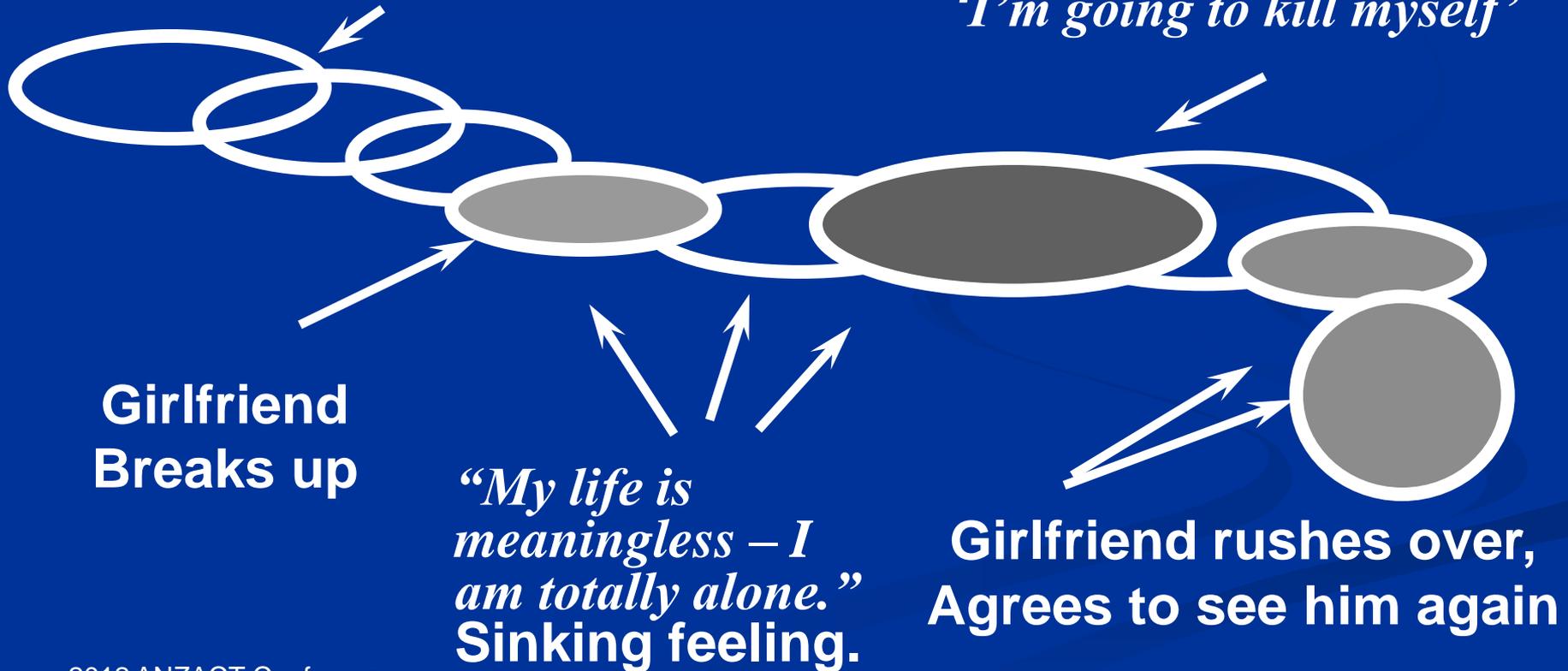
Chain Analysis Components V: Outcomes

- Occur after the ‘target behavior’
- Short-term
 - Immediately or shortly after the act
 - Events, emotions, physiological sensations, etc.
- Long-term
 - Hours, days, weeks following the act

Analyze the chain of events moment-to-moment over time

Depressed, recently moved to live
near girlfriend, struggling to find
work.

Texts girlfriend
'I'm going to kill myself'



Micro-chains

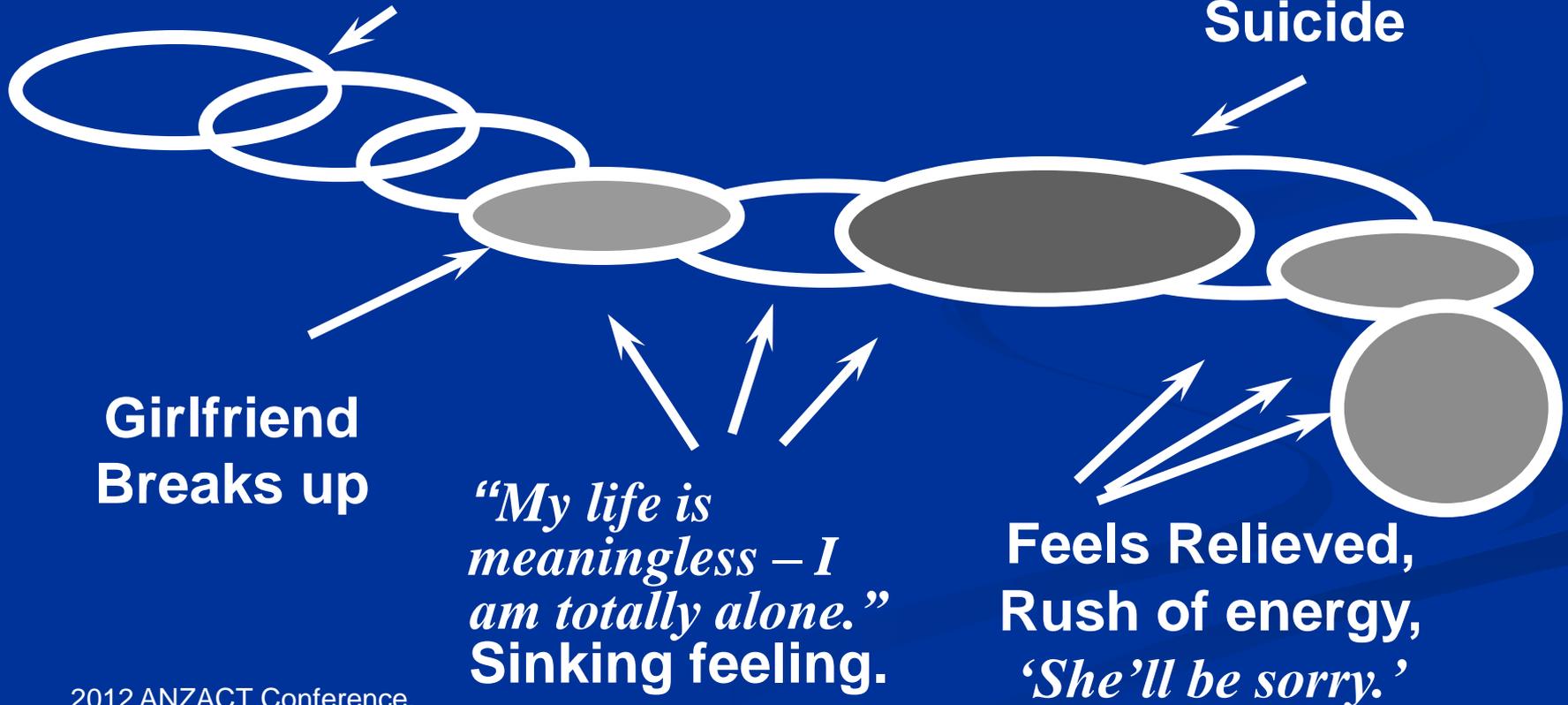
Small cycles of A-B-C that influence the movement toward or away from a target behavior.

In preceding chain -

Analyze the chain of events moment-to-moment over time

Depressed, recently moved to live
near girlfriend, struggling to find
work.

Decides to
Suicide



How to do a chain

- Chains are an exploration
 - Bring an inquisitive mind
 - Engage the client in the wonder of the exploration
- Relish the details; don't rush it
 - *“Go slow in order to go fast”*
- Don't get bogged down
 - Irrelevant details
 - ‘Forcing client’ to reveal or remember details

And then...

- With client, step back and look at the sequence.
- Partnership:
 - YOU are the expert in behavioral theory
 - CLIENT is expert on their own story
 - COLLABORATIVELY you sort out the details

“What allowed this behavior to show up here?”

Behavioral Theory?

- Principles of Operant Behavior
 - Reinforcement & Punishment
- Principles of Respondent Behavior
 - Stimulus control
- Principles of Social Learning
- Verbal community / Relational Frames

EXERCISE

Chain Exercise Instructions

In a small group (4 – 5 people):

- Read the SPL-1 chain (suicidal behavior)
 - SPL-1 indicates that the client is put on 1:1 observation
- Identify links that ‘predict’ or ‘lead to’ the target behavior.
- Is there anything else you would add to the chain, or ask about?
- What would be your highest focus for treatment?

Treatment Planning

- Identify the ‘highest risk’ or ‘best predictor’ elements or links of the chain
- Address those using behavior change strategies
 - Cognitive restructuring/defusion
 - Mindfulness
 - Emotion Regulation skills, etc.
- Rehearse in session – role plays
- Track cues/responses on diary cards
- Track/target these behaviors ‘in-session’ (CRB1’s)

Solution Analysis

Once initial chains have been done...

- chains in session are interspersed with therapist direction on skillful means of handling the situation
 - “What could you have done when that thought popped into your head?”
 - “What skill could you have used there?”
 - “How could you have more effectively dealt with that emotion?”
 - “Did you notice what your body was doing at that point?”

'Success Chains'

Measure of patient improvement

Cue is presented

↳ Alternate behavior emerges

↳ (Review Outcomes)

- Allows progress to be measured,
 - alternate behaviors to be reinforced,
 - additional coaching by therapist, role play

Possible Pitfalls in Chain Analysis

Therapist Interference

- Overly challenging or confronting client accounts, leads to the client shutting down
- ‘Leading the witness’ rather than asking open-ended questions
- Therapist inferences, biases or judgments get in the way of accurate assessment
 - Therapist insists on links that are not evident
 - Therapist neglects to ask about important links

Content Errors

- Missing context in which behavior is occurring
- Too much time spent on irrelevant links, or going off on irrelevant tangents
- Insisting on getting information that is not accessible
- Not gathering information across all components of the chain

Other tips

- Knowledge of learning principles is critical
 - e.g., Reinforcement of sub-threshold behaviors increases likelihood of target behavior
- Search for content across all link elements
 - e.g., physiological elements may reliably accompany or potentiate cognitive/emotional elements
- The chain analysis is not a punitive device and should not be used as such
 - If you hate 'em, so will your clients
- When learning, do as many chains as possible – learn when you 'have enough' to start working on solutions

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