

## Behavioral Activation

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## Decrease in Pleasant Events

### Lewinsohn (1974)

- Depression arises when one's actions do not result in positive reinforcement
- One's environment is filled with low rates of positive reinforcement and increasing rates of punishment
- Treatment focuses on increasing rate of pleasant events as well as an appreciation for the contingencies that lead to the arising of those pleasant events

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## Functional analysis of depression

### Ferster (1973)

- Proposed functional analytic model for the arising and maintenance of depression
- Emphasized that depression arises and is maintained through negative reinforcement as behaviors
  - Behaviors gain strength in a repertoire for their escape and avoidance function
  - These behaviors are emitted to the exclusion of behaviors likely to result in positive reinforcement
  - Like anxiety disorders, depression based on avoidance

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## History: BA/BT as a part of Cognitive Therapy (CT)

### Beck and colleagues (1979)

- Purely behavioral approaches did not endure and over time, cognitive interventions were integrated.
- Explicit aim of modifying internal cognitive structures (automatic thoughts, schema, core beliefs).
- BA strategies within CT package: “the ultimate aim of these techniques in cognitive therapy is to produce change in the negative attitudes” (p.118).

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## Cognitive Therapy of Depression

### Beck, Rush, Shaw, & Emery (1979)

- First manualized treatment
- First few sessions of CT are behavioral activation
  - Suite of behaviorally oriented, non-cognitive skills
    - monitoring of daily activities
    - assessment of pleasure and mastery
    - role-plays and cognitive (imaginal) rehearsal of activities

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## Cognitive Therapy of Depression

- Cognitive therapy (CT) has been shown to be a highly effective, short-term therapy for the treatment of depression
  - DeRubeis, Gelfand, Tang, & Simons (1999), Dobson (1989), Hollon, Shelton, & Loosen, (1991)
- Investigators are starting to question whether cognitive interventions are actually responsible for positive outcome
  - Beidel & Turner (1986), Latimer & Sweet (1984), Sweet & Louizeaux (1991)

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## Dismantling CT of Depression

1. Jacobson, N. S., Dobson, K. S., Truax, P. A., Addis, M. E., Koerner, K., Gollan, J. K., Gortner, E., & Prince, S. E. (1996). A Component Analysis of Cognitive-Behavioral Treatment for Depression. *Journal of Consulting and Clinical Psychology, 64*, 295-304.
2. Gortner, E., Gollan, J. K., Dobson, K. S., & Jacobson, N. S. (1998). Cognitive-Behavioral Treatment for Depression: Relapse Prevention. *Journal of Consulting and Clinical Psychology, 66*, 377-384.
3. Fresco, D. M., Schumm, J. A., & Dobson, K. S. (2005). *Explanatory flexibility and explanatory style: Modality-specific change when comparing behavioral activation with and without cognitive interventions*. Manuscript under review.

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## Dismantling CT of Depression

- Equivalent post-treatment recovery rates across conditions (62%; Jacobson et al., 1996)
- Equivalent well weeks through 2 years post-treatment (75%; Gortner et al., 1998)
- Flexibility confers more protect over relapse as compared to optimism (Fresco et al. 2005)

### Implications

- CT components equivalent in recovery from- and prevention of MDD

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## Explanatory flexibility and explanatory style: Modality-specific change when comparing behavioral activation with and without cognitive interventions

David M. Fresco  
Jeremiah A. Schumm  
Keith S. Dobson

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## Fresco et al. (2008)

- Secondary analysis of 111 participants with complete ASQ data
  - BA ( $n = 42$ )
  - AT ( $n = 28$ )
  - CT ( $n = 41$ )
- Post-treatment ASQ data missing on 41 participants
  - *No differences between ASQ completers and non-completers*

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## Hypotheses and Design

1. Recovery from MDD with BA associated with increased explanatory flexibility
2. Recovery from MDD with AT associated with decreased explanatory style
3. High post-treatment explanatory flexibility predicts low depression during no-treatment follow-up for BA responders
4. Low post-treatment explanatory style predicts low depression during no-treatment follow-up for AT responders

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## Analyses

### Recovery from Depression

1. Tx. Condition (3: BA, AT, CT) by Response Status (2: Yes/No) MANCOVA with explanatory flexibility and explanatory style as dependent measures
2. Follow-up Tx. Condition by Response Status univariate ANCOVAs
3. One-way ANCOVAs for each Tx. Condition examining explanatory flexibility and explanatory style as dependent measures

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## Recovery from MDD Findings

### MANCOVA

- Findings indicated a significant Tx.  
Condition by Responder Status interaction  
–  $F(4, 208) = 2.56, p = .04, \text{Cohen's } f = .23$

### Univariate ANCOVAs

- Explanatory Flexibility  $F(2, 100) = 3.49, p = .07, \text{Cohen's } f = .23$
- Explanatory Style  $F(2, 100) = 10.02, p = .002, \text{Cohen's } f = .32$

\*Note. Cohen's  $f$  Small = .10, Medium = .25, Large = .40

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## Recovery from MDD Findings

### Time 2 FLEX by Condition by Responder Status

Condition	Responder		$F$	$df$	Cohen's $f$
	No	Yes			
BA	1.29 (0.49)	1.68 (0.47)	8.60*	1, 36	.49
AT	1.53 (0.39)	1.35 (0.50)	0.66	1, 24	.16
CT	1.38 (0.53)	1.50 (0.39)	0.35	1, 35	.10

Note. Cohen's  $f$  Small = .10, Medium = .25, Large = .40

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## Recovery from MDD Findings

### Time 2 GENBAD by Condition by Responder Status

Condition	Responder		$F$	$df$	Cohen's $f$
	No	Yes			
BA	4.28 (0.88)	3.97 (0.57)	2.51	1, 36	.26
AT	4.92 (1.10)	3.89 (1.06)	4.45*	1, 24	.43
CT	4.36 (0.96)	4.08 (0.67)	1.28	1, 35	.19

Note. Cohen's  $f$  Small = .10, Medium = .25, Large = .40

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## Durability of Treatment Gains

### Follow-up Depression

1. Survival analysis using post-treatment explanatory flexibility, explanatory style to predict number of well-weeks in the 2-year follow-up (104 wks maximum)
2. Hierarchical linear regression analysis using post-treatment explanatory flexibility, explanatory style, and their interaction to predict number of well weeks

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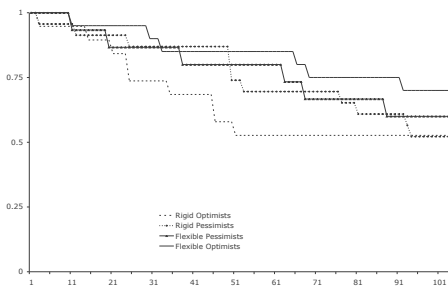
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## Survival Analysis



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## Behavioral Activation: Depression in Context

Christopher Martell  
Sona Dimidjian  
University of Washington

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## Rationale for Behavioral Activation

- BA assumes a behavioral explanation for etiology of depression (Ferster, 1973)
- Life has gone awry- adverse life circumstances viewed as critical causal factors
- Examine events and individual's response
- Behavior functions as avoidance behavior (withdrawal, inertia)
- Tx had to be "outside-in"

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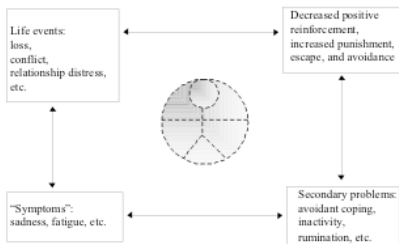
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The expanded context of depression: Bidirectional arrows highlight the interplay between different aspects of the context.



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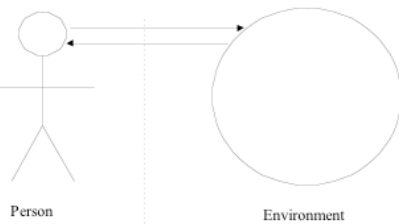
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A cognitive or social learning model. The environment shapes people's perceptions and beliefs, which in turn shape perceptions of the environment.



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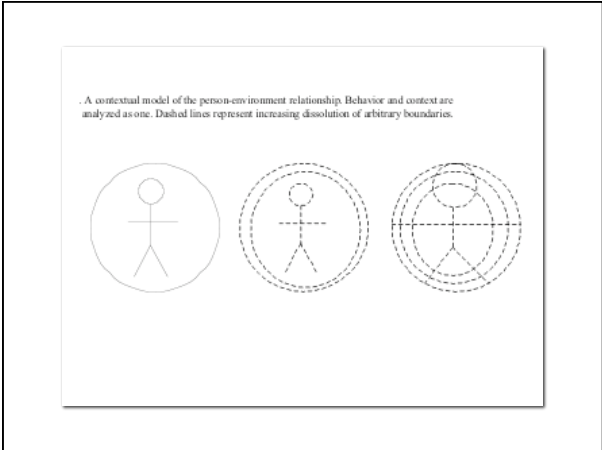
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**Key areas of expansion**

- Distinctly behavioral case conceptualization
- Emphasis on avoidance patterns
- Emphasis on routine regulation
- Focused activation approach
- Behavioral strategies for targeting rumination

Jacobson, Martell, & Dimidjian, 2000  
 Martell, Addis, & Jacobson, 2001

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**Targets of BA**

- Inertia
- Avoidance behaviors
- Routine disruptions, connection between routine and mood
- Individual environments and relationship between activity and mood

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### Course of BA

- Establish good therapeutic relationship
- Present model of BA
- Monitor relationship between situation/ action and mood using activity logs and functional analysis
- Apply new coping strategies to “larger-life issues”
- Treatment review and relapse prevention

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### Key Elements of BA

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### BA Activity Chart

- Baseline assessment of activity
- Understand range of feelings
- Mastery and pleasure ratings
- Observe breadth or restriction of activity
- Guided activity
- Monitor avoidance behaviors
- Evaluate progress toward life goals

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**ACTIVITY CHART**

Notes: 1. What were you doing? 2. What were you feeling? 3. Rate the frequency (0-10) or (1-100) goals

Time	Day 1	Day 2	Day 3	Day 4
6-7 am				
7-8				
8-9				
9-10				
10-11				
11-12				
12-1 pm				
1-2				
2-3				
3-4				
4-5				
5-6				
6-7				
7-8				
8-9				
9-10				
10-11				
11-12				
12-1 pm				
1-2				
2-3				
3-4				
4-5				
5-6				

Some key feelings/motivators: Med, Sed, Calm, Afraid, Ashamed, Hurt

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## Outside In

- Typically we think of acting from the “inside/out”
- We wait to feel motivated before completing tasks, or we respond to our internal states such as sitting in front of the television when we feel bored
- In BA, we ask people to act according to a plan or goal rather than a feeling

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## Increase acting from the “outside”

- Follow a written plan (e.g., activity schedule)
- Monitor progress
- Highlight consequences of increased activation
- Express your intention to another person, public support can help to get a task done
- Use of arbitrary self-reinforcement is sometimes useful (e.g. allow yourself to have a small snack only after completing housework or yard work)

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## Graded Task Assignment

- Based on functional analysis and goals
- Assign increasingly more difficult tasks to move toward full participation in activities
  - Help break tasks down into manageable components
    - Mastery and success of one component will increase likelihood of completing other components
  - Engage in mental rehearsal
    - Troubleshoot by anticipating obstacles and evaluating whether likely to be successful
    - If too challenging, can break down further

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## Avoidance Modification

- Understand the discomfort experienced in a particular situation that is then followed by some action on the part of the client to extinguish aversive experience
- Avoidance serves adaptive function in short-run but is problematic in long-run
- Assist the person in identifying the function of various avoidance behaviors and helping choose alternative coping behaviors
  - TRAP (Trigger, Response, Avoidance Pattern)
  - TRAC (Trigger, Response, Alternative Coping)

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## TRAP/TRAC

- |   |   |
|---|---|
| • T- Trigger ( <i>demands at work</i> )                                 | • T-Trigger ( <i>demands at work</i> )                                    |
| • R- Response ( <i>depressed mood/ hopelessness</i> )                   | • R- Response ( <i>depressed mood/ hopelessness</i> )                     |
| • AP- Avoidance Pattern ( <i>stay home in bed, don't answer phone</i> ) | • AC- Alternative Coping ( <i>approach behaviors using graded tasks</i> ) |

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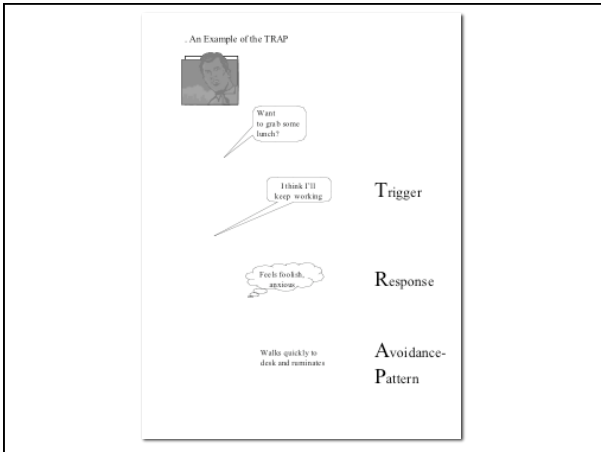
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**T**igger: What situation, activity, or thinking occurred?  
\_\_\_\_\_

**R**esponse: What was my response to the trigger? (What did I do or feel?)  
\_\_\_\_\_

**A**voidance-  
**P**attern: What did I do to stop my discomfort?  
\_\_\_\_\_

.....  
What are the activities that seemed difficult or painful to do?  
.....  
What are the activities that I was unable to do?  
.....

In what way was my behavior immediately effective in stopping my discomfort?.....  
.....

What are possible long-term consequences of my behavior? .....

After doing the above activity (or inactivity) am I **MORE** or **LESS** depressed?  
(Circle which)

What change in my behavior can I try in order to break out of the "TRAP"? .....

When will I try this behavior? \_\_\_\_\_

Outcome (after trying new behavior): \_\_\_\_\_

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## Routine Regulation

- Work with patient to develop and follow regular routine for basic life activities—eating, working, school, sleeping.
- Can only evaluate new behaviors after implemented for a period of time—make them routine, then evaluate
  - Use activity logs
  - Use the ACTION strategy

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## ACTION Strategy

### Assess

- How will my behavior affect my depression?
- Am I avoiding? What are my goals in this situation?

### Choose

- Activating myself will increase my chances of improving my life situation and mood.
- Choosing not to self-activate = choosing to take a break.

Try the behavior I have chosen.

Integrate any new activity into my daily routine.

Observe the Result.

- Do I feel better or worse?
- Did this action help me improve my situation?

Never Give up

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## Targeting Rumination



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## Targeting Rumination

- Depressed individuals often think about misery of life, ruminate about symptoms, and do not problem solve
- Rumination often leads to withdrawal, inactivity, and ultimately more rumination
- Function may be escape or avoidance
- BA treats ruminating as a *behavior* rather than engaging or challenging the content of ruminative thoughts

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**A Focus on the Content  
of Thinking (Cognitive Therapy)**

*"I was depressed all day yesterday because I was thinking about how my sister really doesn't love me."*

- What is the evidence that this thought is accurate?
- What would it mean if it were true?
- Can you think of another way to interpret what your sister said?
- Why must everyone love you?

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**A Focus on the Context and  
Consequences of Thinking**

*"I was depressed all day yesterday because I was thinking about how my sister really doesn't love me."*

- When did you start thinking that?
- How long did it last?
- What were you doing while you were thinking that?
- What consequences did it have? What might be the function?
- What else could you have done during that time?

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**Targeting Rumination**

Block avoidance function of ruminating

- Attention to Experience Interventions:
  - Notice colors, smells, noises, sights, relation to others etc. (Mindfulness)
  - Notice elements of tasks (parenting, work)
- RCA: Rumination as a Cue to get Active
  - Rumination
  - Cues
  - Action

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