The How and Why of Rumination and Worry

Edward Watkins, PhD
Sir Henry Wellcome Building for Mood Disorders Research
University of Exeter
e.r.watkins@exeter.ac.uk

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Veysey Building- Lecture Theatre
Lessons for psychological treatments from experimental research into repetitive thought
The Sir Henry Wellcome Building for Mood Disorders Research
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Overview

• Negative repetitive thought (RT e.g., worry & rumination) = core process in depression & anxiety

⇒ target RT to improve treatments for depression & anxiety

• But RT is normal & can be helpful e.g., problem-solving, coming to terms past events

• Key questions in RT: Why?, How?, Who?, What determines if helpful or unhelpful?

⇒ Investigate mechanisms of RT

⇒ Translate into treatment
  – ⇒ Target RT as a learnt habit
  – ⇒ Shift Processing style (Why to How)
Repetitive Thought (RT)

- Segerstrom et al., (2003, p.3) “process of thinking attentively, repetitively or frequently about one’s self and one’s world”. Includes:
  - **Rumination** = “passively and repetitively focusing on one’s symptoms of distress and the circumstances surrounding these symptoms” (Nolen-Hoeksema et al., 1997).
  - **Worry** = “a chain of thoughts and images, negatively affect-laden and relatively uncontrollable”, “an attempt to engage in mental problem-solving on an issue whose outcome is uncertain but contains the possibility of one or more negative outcomes” (Borkovec et al., 1983, p. 9).
Repetitive Thought (RT)

- But also includes –
- **Cognitive Processing** = the process of actively thinking about a stressor, the thoughts and feelings it evokes and its implications for one's life and future (Bower et al., 1998; Greenberg, 1995), viewed as necessary part of process of attempting to resolve the discrepancy between stressful events and core beliefs and assumptions (Horowitz, 1985).
- **Problem Solving** e.g., repeated mental simulation and rehearsing of future actions and situations (Taylor et al., 1998).
Why do I feel so bad?
Why did this happen to me?
Why can’t I handle things better?
What does this mean about me?
What if it goes wrong?

Imagine catastrophic consequences

Linked to less effective therapy

Exacerbates negative mood & cognition in experiments

Prospectively predicts onset, duration, severity of depression, anxiety, PTSD, substance abuse, eating disorders

Predicts chronic health problems e.g., cardiovascular disease

Watkins (2008) – Negative consequences of RT

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Reduces negative mood & improves planning & problem-solving in experiments.

Predicts recovery from upsetting and traumatic events and from depression in some prospective studies.

Watkins (2008) – Positive consequences of RT.
Constructive and Unconstructive Repetitive Thought

Edward R. Watkins
University of Exeter

The author reviews research showing that repetitive thought (RT) can have constructive or unconstructive consequences. The main unconstructive consequences of RT are (a) depression, (b) anxiety, and (c) difficulties in physical health. The main constructive consequences of RT are (a) recovery from upsetting and traumatic events, (b) adaptive preparation and anticipatory planning, (c) recovery from depression, and (d) uptake of health-promoting behaviors. Several potential principles accounting for these distinct consequences of RT are identified within this review: (a) the valence of thought content, (b) the intrapersonal and situational context in which RT occurs, and (c) the level of construal (abstract vs. concrete processing) adopted during RT. Of the existing models of RT, it is proposed that an elaborated version of the control theory account provides the best theoretical framework to account for its distinct consequences.

Keywords: repetitive thought, rumination, worry, cognitive processing, control theory
Lesson for Psychological Treatment 1

- RT should not be treated as always pathological – normal and universal
- Useful to normalise the experience – “we all do it”
- Patients (and therapists) would benefit from discriminating between when helpful vs. unhelpful (“Is it an unanswerable question? Is this leading to a useful decision or plan?”)
Q1 How does it start?

Q2 - Why is RT more frequent, more persistent in some people?

Q3 What determines consequences?

- Rumination
- Worry
- Problem-solving
- Cognitive processing
Q1. What initiates RT?


- Discrepancy increases attention to & accessibility of information related to goal – with instrumental function of focusing on goal resolution (cf Zeigarnik effect, e.g., coming to terms, making sense), i.e., attempt at problem solving.

- RT ceases if goal is attained or abandoned
Q1. What initiates RT?

- **Evidence:** recall of interrupted tasks better than of completed tasks (Zeigarnik, 1938)

- current concerns appear in thought if action regarding concern met with unexpected difficulties, if little time remained for action toward the goal (Klinger, Barta, & Maxeiner, 1980)

- rumination about person left behind on coming to university predicted by extent to which activities shared with this person not resumed at university (Millar, Tesser, & Millar, 1988)

- ESM study found that momentary ruminative self-focus associated with lack of progress on important goals (Moberly & Watkins, 2009)
Ruminative Self-Focus and Negative Affect: An Experience Sampling Study

Nicholas J. Moberly and Edward R. Watkins
University of Exeter

The authors conducted an experience sampling study to investigate the relationship between momentary ruminative self-focus and negative affect. Ninety-three adults recorded these variables at quasi-random intervals 8 times daily for 1 week. Scores on questionnaire measures of dispositional rumination were associated with mean levels of momentary ruminative self-focus over the experience sampling week. Concurrently, momentary ruminative self-focus was positively associated with negative affect. Cross-lagged analyses revealed that whereas ruminative self-focus predicted negative affect at a subsequent occasion, negative affect also predicted ruminative self-focus at a subsequent occasion. Decomposition of the dispositional rumination measure suggested that brooding, but not reflective pondering, was associated with higher mean levels of negative affect. Though broadly consistent with Nolen-Hoeksema’s (1991) response styles theory, these results suggest that a reciprocal relationship exists between ruminative self-focus and negative affect.

Keywords: depression, rumination, self-focus, experience sampling, affect
Implications of unresolved goal account

- Explains RT as a normal cognitive process, with potential instrumental effects
- Adaptive or maladaptive outcome depends upon whether increased focus on discrepancy helps to problem solve or not
- Problem if goal unattainable & unable to let go of goal – e.g., perfectionism, goal linked self-concept, unanswerable question →
- Perseveration of RT results from ineffective processing that prevents problem-solving & coming to terms (See Q3)
Lesson for Psychological Treatment 2

- Telling people to stop worry & rumination won’t work
- Thought-stopping & Distraction can only be short-lived
- RT will reoccur until goal discrepancy resolved
Q2. What causes people to get stuck? What underlies individual differences in RT?

  - Children learn by observing parents (modelling)
  - Parents fail to teach adaptive active coping strategies in response to difficulties (neglectful, unresponsive or overcontrolling) — child learns passive coping style
  - = a learnt behaviour with perceived positive consequences, a response learnt to particular environments & contingencies
  - May be negatively reinforced (removal of aversive experience) — e.g., avoid risk failure, cognitive avoidance, control feelings, second guessing (nb. Superstitious, partial, poor discrimination) (Ferster, 1981, Martell et al., 2001)
Superstitious reinforcement.

.....
Q2. What causes people to get stuck? What underlies individual differences in RT?

- **Evidence:**
  - Negative RT associated self-report index of habit, capturing whether thoughts are frequent, unintended, initiated without awareness, difficult to control (Verplanken et al., 2007)
  - Retrospective self-report of childhood abuse & overcontrolling parenting style associated with rumination (Spasojevic & Alloy, 2002)
  - Prospective longitudinal study found that behavioural observation of overcontrolling maternal style (taking over on shared game) at age 4 predicts rumination at age 16 (Mills, Watkins, et al in prep).

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Lesson for Psychological Treatment 3

- Habits resist informational interventions (Verplanken & Wood, 2006)
- Hence, focus on thought content alone (e.g., thought challenging) may be insufficient – need to change process.
- Successful habit change involves
  - disrupting the environmental factors (time, place, mood) that automatically cue habit
  - counter-conditioning an alternative incompatible response to triggering cues (a helpful habit)
Q3. What makes RT helpful or unhelpful?

a. Unsurprising, less interesting answer = **VALENCE** of thought content (Watkins, 2008)

(Finding benefit = focus on **positive** content)  

(Focus on **negative** content – self-critical)

Rumination
Q3. But what makes RT about negative (Repetitive Negative Thought, RNT) content/event helpful or unhelpful?
Processing mode hypothesis

- Theory and experiments → hypothesis that there are distinct styles of RNT, with distinct functional consequences

- **Adaptive**, constructive ruminative self-focus = concrete, process-focused, specific thinking, focused on the concrete & specific experience & process of **how** things happen moment-by-moment


“Think about the causes, meanings and consequences of.....” symptoms & feelings (evaluative-conceptual)

“Focus your attention on your experience of......” symptoms & feelings (experiential-concrete)
Distinct Modes of Ruminative Self-Focus: Impact of Abstract Versus Concrete Rumination on Problem Solving in Depression

Ed Watkins
University of Exeter

Michelle Moulds
Institute of Psychiatry

One account for the negative effects of rumination on social problem solving (SPS) is the symptom-focus hypothesis, which proposes that focus on symptoms amplifies the vicious cycle between depressed mood and negative cognition. The authors tested a contrasting account, the reduced concreteness hypothesis, which postulates that the abstract thinking typical of rumination impairs SPS. In 40 depressed patients and 40 never-depressed controls, SPS was assessed before and after versions of symptom-focused rumination known to differentially induce abstract versus concrete self-focus (E. Watkins & J. D. Teasdale, 2001). As predicted by reduced concreteness theory, relative to abstract self-focus, concrete self-focus improved SPS in depressed patients, suggesting that the particular mode of symptom-focus, rather than symptom-focus per se, determines the effects of rumination on problem solving.

Keywords: rumination, depression, self-focus, processing mode, problem solving
“Think about the causes, meanings and consequences of……” symptoms versus & feelings (evaluative-abstract)

“Focus your attention on your experience of……” symptoms & feelings (experiential – concrete)

Group x Condition X Time $F(1,75) = 8.37, p < .005$:

- ▲ depressed-evaluative
- ■ depressed-concrete
- ▲ control-evaluative
- ■ control-concrete

Watkins & Moulds (2005)
Rumination and social problem-solving in depression

Ed Watkins *, Simona Baracaia

Department of Psychology, Institute of Psychiatry, De Crespigny Park, Denmark Hill, London SE5 8AF, UK
8 October 2001

Abstract

We tested the hypothesis that impaired social problem solving in depression is a consequence of state-oriented rumination, which can be ameliorated by improving awareness of mental processes. 32 currently depressed, 26 recovered depressed, and 26 never depressed participants completed the Means Ends Problem Solving Test while randomly allocated to no questions, state-oriented ruminative questions, (e.g. focusing on why you have a problem) or process-focused questions (e.g. focusing on how you decide to solve a problem). In the no question condition, the currently depressed group was significantly impaired at problem solving compared to the never depressed and recovered depressed groups, which did not differ from each other. As predicted, the process-focused questions significantly improved social problem solving in depressed patients, compared to no questions and state-oriented questions, which did not differ from each other. As predicted, compared to the process-focused questions, the state-oriented questions significantly impaired social problem solving in the recovered depressed group. These results are consistent with recent theories and treatment developments which suggest that increased awareness of mental processes can shift people away from ruminative thinking, thereby, reducing depressive relapse. © 2002 Elsevier Science Ltd. All rights reserved.

Keywords: Depression; Rumination; Problem solving; Mindfulness

The graph shows the number of mean steps taken by individuals in different depression statuses when solving problems with varying questioning styles.

- **Number of mean steps**
  - **never depressed**
  - **recovered depressed**
  - **currently depressed**

**Depression status**
- **no question**
- **why question**
- **how question**

The graph indicates that the number of mean steps taken decreases as depression status transitions from never depressed to currently depressed, regardless of the questioning style.
Training thinking style

- Inspired by Mathews & Mackintosh (2000), MacLeod et al., (2002), MacLeod & Rutherford, (2004), etc, we asked if individuals can be trained in/out different styles?

- Focus on cognitive intervention for rumination

- Idea of training participants to adopt abstract vs. concrete mindsets prior to a stressor

- Tests causal role of abstract style/bias on emotional reactivity
Processing Mode Causally Influences Emotional Reactivity: Distinct Effects of Abstract Versus Concrete Construal on Emotional Response

Ed Watkins and Nicholas J. Moberly
University of Exeter

Michelle L. Moulds
University of New South Wales

Three studies are reported showing that emotional responses to stress can be modified by systematic prior practice in adopting particular processing modes. Participants were induced to think about positive and negative scenarios in a mode either characteristic of or inconsistent with the abstract-evaluative mind-set observed in depressive rumination, via explicit instructions (Experiments 1 and 2) and via implicit induction of interpretative biases (Experiment 3), before being exposed to a failure experience. In all three studies, participants trained into the mode antithetical to depressive rumination demonstrated less emotional reactivity following failure than participants trained into the mode consistent with depressive rumination. These findings provide evidence consistent with the hypothesis that processing mode modifies emotional reactivity and support the processing-mode theory of rumination.

Keywords: processing mode, emotional reactivity, rumination, training, overgeneralization
Participants imagine 30 emotional scenarios (e.g., argument with best friend) in one style as training before a stressful anagram test.

**Abstract:** I would like you to think about *why* it happened, and to analyse the causes, meanings and implications of this event.'

**Concrete:** I would like you to focus on *how* it happened, and to imagine in your mind as vividly and as concretely as possible a “movie” of how this event unfolded.'
Training mode causally influences despondency after failure (Watkins et al., 2008)
Processing Mode

(Focus on negative content + abstract (why) -conceptual mode)

Focus on negative content + concrete (how) -experiential mode
Why? - Over-analysis

"Third one this month. Do you always have to analyze everything to death?"
Lesson for Psychological Treatment 4

- Targeting processing style may be able to shift from maladaptive to adaptive RT
- Training individuals to be more concrete (asking How?) is more adaptive when responding to negative situations than being abstract (asking Why?).
- Putting these lessons together → Rumination-focused Cognitive-Behaviour Therapy (RFCBT)
Rumination-focused CBT (RFCBT) 1

- RFBCT grounded within the core principles and techniques of CBT for depression (Beck, Rush, Shaw, & Emery, 1979) with two adaptations:
  - a functional-analytical perspective using Behavioural Activation (BA) approaches (Addis & Martell, 2004; Martell et al., 2001) → target habit
  - a focus on directly shifting processing style via imagery & experiential approaches & FA → shift from unhelpful to helpful forms of RT
  - i.e., Both approaches focused on changing process of thinking, not content
Rumination-focused CBT (RFCBT) 2

- Within BA terms, rumination conceptualized as avoidance (cognitive & actual) that is negatively reinforced (e.g., avoid risk of failure; pre-empt criticism; reduce intensity)
- Rumination becomes a learned habitual behaviour
Behavioural activation involves:
Engaging in the positive;
Increasing activity
Functional Analysis

- Thus, *functional analysis* used to reduce avoidance & to replace it with more helpful approach behaviours – to target habitual behaviour

- FA focuses on variability & context of rumination (when helpful/unhelpful, when less/more)

- Antecedents – Behaviour – Consequences

- Seek to replace RT with more constructive alternative that serves perceived function
Functional analysis

- Used to help patients:
  - (a) recognise warning signs for rumination – increase awareness of habit
  - (b) develop alternative strategies and contingency plans (e.g., relaxation, assertiveness) & repeatedly practise to generate new habit
  - (c) alter environmental and behavioural contingencies maintaining rumination (remove environmental cues to habit).
  - (d) shift towards more helpful thinking & discriminating between helpful vs. unhelpful thinking.
Shifting processing style 1

- Coach experiential exercises/build up activities to shift out of abstract-evaluative rumination mode

A) Focus on recreating experiences of being in a process-focused mode – absorbed, caught up in the task, “flow”, “in the zone”, peak experiences
B) Compassionate, tolerant, caring, nurturing, non-judgemental mode

Both involve focus on holistic experiential shift: thoughts, feelings, posture, sensory experience, bodily sensations, attitude, motivation, facial expression, action feelings.
Testing RFCBT - Residual symptoms

- Depression chronic & recurring (Judd, 1997)
- Relapse/recurrence prevention = priority for future treatment research (Hollon et al., 2002).
- partial remission = maintenance of residual symptoms following acute treatment for depression. 1/3 of patients (Cornwall & Scott, 1997; Paykel et al., 1995). Medication-refractory depression
- Residual symptoms predict relapse in prospective longitudinal studies (Fava, 1999; Judd, 1997; Judd et al., 1999; Paykel et al., 1995).
Rumination = core residual symptom

- A common residual symptom, remaining elevated after both partial and full remission from depression (Riso et al., 2003; Roberts, Gilboa, & Gotlib, 1998)

- Associated with less responsiveness to both ADM and CBT (Ciesla & Roberts, 2002; Schmaling, Dimidjian, Katon, & Sullivan, 2002)

- Prospectively predicts the onset, severity and duration of depression (e.g., Just & Alloy, 1997; Kuehner & Weber, 1999; Nolen-Hoeksema, 2000; Spasojevic & Alloy, 2001).
Shorter communication

Rumination-focused cognitive behaviour therapy for residual depression: A case series

Ed Watkins, Jan Scott, Janet Wingrove, Katharine Rimes, Neil Bathurst, Herbert Steiner, Sandra Kennell–Webb, Michelle Moulds, Yanni Malliaris

*Mood Disorders Centre, School of Psychology, University of Exeter, Exeter EX4 4QG, UK
*Institute of Psychiatry, London SE5 8AF, UK
*Devon Partnership NHS Trust, Devon, UK
*Department of Psychology, University of New South Wales, Sydney, Australia

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Abstract

The treatment of chronic and recurrent depression is a priority for the development of new interventions. The maintenance of residual symptoms following acute treatment for depression is a risk factor for both chronic depression and further relapse/recurrence. This open case series provides the first data on a cognitive-behavioural treatment for residual depression that explicitly targets depressive rumination. Rumination has been identified as a key factor in the onset and maintenance of depression, which is found to remain elevated following remission from depression. Fourteen consecutively recruited participants meeting criteria for medication-refractory residual depression [Paykel, E.S., Scott, J., Teasdale, J.D., Johnson, A.L., Garland, A., Moore, R. et al., 1999. Prevention of relapse in residual depression by cognitive therapy—a controlled trial. Archives of General Psychiatry 56, 829–835] were treated individually for up to 12 weekly 60-min sessions. Treatment specifically focused on switching patients from less helpful to more helpful styles of thinking through the use of functional analysis, experiential/imagery exercises and behavioural experiments. Treatment produced significant improvements in depressive symptoms, rumination and co-morbid disorders: 71% responded (50% reduction on Hamilton Depression Rating Scale) and 50% achieved full remission. Treating depressive rumination appears to yield generalised improvement in depression and co-morbidity. This study provides preliminary evidence that rumination-focused CBT may be an efficacious treatment for medication-refractory residual depression.

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Keywords: Rumination; Cognitive behaviour therapy; Behavioural activation; Residual depression; Case series

Introduction
Rumination-focused cognitive–behavioural therapy for residual depression: phase II randomised controlled trial

Edward R. Watkins, Eugene Mullan, Janet Wingrove, Katharine Rimes, Herbert Steiner, Neil Bathurst, Rachel Eastman and Jan Scott

Background
About 20% of major depressive episodes become chronic and medication-refractory and also appear to be less responsive to standard cognitive–behavioural therapy (CBT).

Aims
To test whether CBT developed from behavioural activation principles that explicitly and exclusively targets depressive rumination enhances treatment as usual (TAU) in reducing residual depression.

Method
Forty-two consecutively recruited participants meeting criteria for medication-refractory residual depression were randomly allocated to TAU v. TAU plus up to 12 sessions of individual rumination-focused CBT. The trial has been registered (ISRCTN22782150).

Results
Adding rumination-focused CBT to TAU significantly improved residual symptoms and remission rates. Treatment effects were mediated by change in rumination.

Conclusions
This is the first randomised controlled trial providing evidence of benefits of rumination-focused CBT in persistent depression. Although suggesting the internal validity of rumination-focused CBT for residual depression, the trial lacked an attentional control group so cannot test whether the effects were as a result of the specific content of rumination-focused CBT v. non-specific therapy effects.

Declaration of interest
None.
PILOT RCT

Residual Depression

Acute ADM treatment

GP/CMHT referral to the study

Screening assessment - Informed consent? (n = 42)

Yes: Conduct full intake assessment

Randomise (n=42)

Treatment as usual (antidepressants) May include CBT

Individual RFCBT + TAU Up to 12 sessions

Post-intervention assessment – blind at 16-20 weeks (n = 40)

Inclusion:
- a. DSM-IV criteria for MDD last 18 mths, not last 2 mths;
- b. residual symptoms ≥ 8 on 17-item HRSD & ≥ 14 on BDI-II;
- c. ADM for ≥ 8 weeks

Exclusion:
- History of bipolar disorder, psychotic disorder, current substance dependence
## Baseline scores

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<th></th>
<th>TAU (n = 21)</th>
<th>RFCBT+ TAU (n = 21)</th>
<th>F</th>
<th>p</th>
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<tr>
<td><strong>Age</strong></td>
<td>45.24 (9.33)</td>
<td>43.05 (11.09)</td>
<td>.48</td>
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<tr>
<td><strong>F:M</strong></td>
<td>10:11</td>
<td>14:7</td>
<td>$\chi^2 = .87$</td>
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<tr>
<td>Length current episode mths</td>
<td>7.57 (6.13)</td>
<td>9.14 (6.3)</td>
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<td>Previous episodes</td>
<td>4.84 (3.02)</td>
<td>5.43 (2.93)</td>
<td>.45</td>
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<td><strong>HRSD</strong></td>
<td>12.19 (2.80)</td>
<td>13.29 (3.32)</td>
<td>1.33</td>
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<td><strong>BDI</strong></td>
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<td><strong>RSQ</strong></td>
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<td>56.40 (11.92)</td>
<td>.21</td>
<td>ns</td>
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<td><strong>Axis I diagnoses</strong></td>
<td>1.86 (1.24)</td>
<td>2.05 (0.92)</td>
<td>.32</td>
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</tr>
</tbody>
</table>
Change in BDI by treatment arm

BDI score

pre-intervention

post-intervention

time

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Change in BDI by treatment arm

Condition X Time, $F(1, 38) = 10.26$, $p < .005$. Between-treatments effect size for ↓ BDI, Cohen’s $d = 1.06$

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Change in BDI by treatment arm

Condition X Time, $F(1, 38) = 10.26$, $p < .005$. Between-treatments effect size for ↓ BDI, Cohen’s $d = 1.06$
Change in HRSD by treatment arm

Condition X Time, $F(1, 38) = 7.38, p < .01$. Between-treatments effect size for ↓HRSD, Cohen’s $d = 0.895$
Change in HRSD by treatment arm

Condition X Time, $F_{(1,38)} = 7.38, p < .01$ Between-treatments effect size for ↓ HRSD, Cohen’s $d = 0.895$
Change in RSQ (rumination) by treatment arm

Condition by Time, $F(1, 37)= 4.01, p < .05$
Between-treatments effect size for $\downarrow$RSQ, Cohen’s $d = 0.645$
Recovery, Remission & Relapse

- **Recovery** (50% reduction in HRSD):
  - TAU 26% vs. TAU + RFCBT 81%, $\chi^2 = 9.92$, $p < .001$

- **Full Remission** (BDI-II < 14, HRSD < 8):
  - TAU 21% vs. TAU+RFCBT 62%, $\chi^2 = 5.24$, $p < .05$. [CBT in Paykel et al., 1999 study 25%]

- **Relapse** between pre & post assmts (5 mths)
  - TAU 53% vs. TAU+RFCBT 9.5%, $\chi^2 = 6.89$, $p < .01$ [IRR 0.18]
Concreteness Training Reduces Dysphoria: Proof-of-Principle for Repeated Cognitive Bias Modification in Depression

Ed R. Watkins, Celine B. Baeyens, and Rebecca Read
University of Exeter

A tendency toward abstract and overgeneral processing is a cognitive bias hypothesized to causally contribute to symptoms of depression. This hypothesis predicts that training dysphoric individuals to become more concrete and specific in their thinking would reduce depressive symptoms. To test this prediction, 60 participants with dysphoria were randomly allocated either to (a) concreteness training; (b) bogus concreteness training, matched with concreteness training for treatment rationale, experimenter contact, and treatment duration but without active engagement in concrete thinking; (c) a waiting-list, no training control. Concreteness training resulted in significantly greater decreases in depressive symptoms and significantly greater increases in concrete thinking than the waiting-list and the bogus training control, and significantly greater decreases in rumination than the waiting-list control. These findings suggest that concreteness training has potential as a guided self-help intervention for mild-to-moderate depressive symptoms.

Keywords: cognitive bias modification, rumination, overgeneralization, depression, guided self-help
Concreteness Training

- Key elements via direct instructions, guiding questions:
  - (a) focusing on details in the moment (e.g., questions asking participants to focus on and describe what they could see, hear, feel);
  - (b) noticing what is specific and distinctive about the context of the event;
  - (c) noticing the process of how events and behaviors unfold (e.g., “imagine a movie of how events unfolded”);
  - (d) generating detailed step-by-step plans of how to proceed from here.
Watkins et al., 2009

- Waitinglist
- Concreteness-active CD
- Bogus training

N = 59

Condition x Time, F (2, 56) = 8.4, p < .001
MRC clinical trial

- Patients major depression recruited in primary care
- Guided self-help: 1 face-to-face session (90 mins), 3 30-min phone sessions over 6 weeks, CD exercises
- Random allocation to
  - Concreteness Training + Treatment-as-usual (TAU)
  - Relaxation Training (treatment control, matched for rationale, duration, therapist contact, structure, practice) + TAU
  - TAU
- Blind assessment (SCID, HRSD, BDI) pre-treatment, post-treatment, 3 month follow-up
- Stratification by a) severity of depression; b) antidepressant use
- Process measures include: modified ASQ (global attributions), AMT (overgeneral memory), RSQ,
- Recruited 121 patients
Guided self-help concreteness training as an intervention for major depression in primary care: a Phase II randomized controlled trial


1 Mood Disorders Centre, University of Exeter, UK
2 Peninsula Medical School, University of Exeter, UK
3 Peninsula Medical School, University of Plymouth, UK

Background. The development of widely accessible, effective psychological interventions for depression is a priority. This randomized trial provides the first controlled data on an innovative cognitive bias modification (CBM) training guided self-help intervention for depression.

Method. One hundred and twenty-one consecutively recruited participants meeting criteria for current major depression were randomly allocated to treatment as usual (TAU) or to TAU plus concreteness training (CNT) guided self-help or to TAU plus relaxation training (RT) guided self-help. CNT involved repeated practice at mental exercises designed to switch patients from an unhelpful abstract thinking habit to a helpful concrete thinking habit, thereby targeting depressogenic cognitive processes (rumination, overgeneralization).

Results. The addition of CNT to TAU significantly improved depressive symptoms at post-treatment [mean difference on the Hamilton Rating Scale for Depression (HAMD) 4.28, 95% confidence interval (CI) 1.29–7.26], 3- and 6-month follow-ups, and for rumination and overgeneralization post-treatment. There was no difference in the reduction of symptoms between CNT and RT (mean difference on the HAMD 1.98, 95% CI –1.14 to 5.11), although CNT significantly reduced rumination and overgeneralization relative to RT post-treatment, suggesting a specific benefit on these cognitive processes.

Conclusions. This study provides preliminary evidence that CNT guided self-help may be a useful addition to TAU in treating major depression in primary care, although the effect was not significantly different from an existing active treatment (RT) matched for structural and common factors. Because of its relative brevity and distinct format, it may have value as an additional innovative approach to increase the accessibility of treatment choices for depression.
121 Patients with major depression recruited GPs

**Guided self-help:** 1 face-to-face session (90 mins), 3 x 30-min phone sessions over 6 weeks, CD exercises

Random allocation to Concreteness Training (CT), Relaxation Training (RT) or Treatment-as-Usual (TAU).
Future directions

- Examine elements of RFCBT as primary prevention – identify rumination in adolescence as risk factor for depression & target before depression.

- Further investigate processing style associated with rumination – we hypothesize that a tendency to have difficulties disengaging from negative information coupled with abstract style underpins pathological rumination.

- Develop internet-based self-help training interventions to shift style.
One thing we find really important to reduce worry and rumination is to be CONCRETE and SPECIFIC. Rumination has a way of growing and growing until the thoughts expand to cover everything in your life, moving away from the specifics of the situation to overgeneralize across many situations.

Flow of negative thoughts

Whilst a thought may have started because you overheard your name in a conversation, and thought that the people who were talking may have been talking about you, pretty soon your thoughts may turn to a lot of negative things, like what these people must have said, negative things OTHER people have said about you before, all the people who you know don’t like you and all the things you don’t like about yourself. Rumination and the negative emotions that come with it tend to grow and expand.

How to get specific and be concrete

It is hard to stop that flow of negative thoughts once it has started, but getting SPECIFIC is an important step. To do that you have to be CONCRETE and focus on the specific details of what is going on NOW — we want you to
RFCBT as prevention intervention

- **Aim**: to investigate whether rumination-focused CBT is viable means to reduce future depression in adolescents and young adults

- **2x Phase II RCTs as proof-of-principle selective/indicated prevention interventions:**
  - **Amsterdam study** - Preventing depression and anxiety disorders by targeting excessive worry and rumination in adolescents. 2009-2013 funded by ZonMw, PI Ehring (N = 241 recruited)
  - **Yale study** - “Healthy Girls Project”, PI Nolen-Hoeksema
<table>
<thead>
<tr>
<th>Method</th>
<th>Amsterdam</th>
<th>Yale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>15-19 yrs, 2nd school, university, M &amp; F</td>
<td>14-16 yrs, F, African-American or Latino, low SES, local schools</td>
</tr>
<tr>
<td>Criteria</td>
<td>Screened top 75% PSWQ or RSQ, top 66% on other, not current clinical level symptoms</td>
<td>Schools not allow pre-screening BUT high symptom and rumination levels ( \text{M BDI} = 36 )</td>
</tr>
<tr>
<td>Treatments in RCT (target ( n = 100 ) each cell)</td>
<td>Group RFCBT vs. internet RFCBT vs. no treatment</td>
<td>Group RFCBT vs. group CBT (Stice et al., 2008) vs. no treatment</td>
</tr>
<tr>
<td>Treatment Setting</td>
<td>University, clinic, internet</td>
<td>School classes</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Self-reported depression (BDI), anxiety, ED, substance abuse, worry, rumination, stress</td>
<td>Diagnostic interviews plus self-reported measures, school attendance &amp; performance</td>
</tr>
<tr>
<td>Assessment</td>
<td>Pre, post intervention, 6, 12 month follow-up</td>
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</tr>
</tbody>
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Lesson for Psychological Treatment 5

- Clinical work can inform experimental research
- Experimental research can inform and develop treatments.

There is value in:
- Treatment targeted on core identified process
- Developing interventions informed by basic research into mechanisms of core process