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**What route am I going to take?**

Why disorder-specific CBT is the gold standard

Yet we need a flexible therapy for services to be efficient

What processes do different disorders have in common?

What do the different processes have in common?

The effect on keeping goal conflict outside awareness

Why we need a theory to explain control & conflict

How do we help people reclaim control over their lives?

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**Why is disorder-specific CBT currently the gold standard?**

- Large number of successful, well-controlled trials CBT for specific disorders

- ... based on Cognitive Models of specific psychological disorders

- ... derived through reciprocal Links between Theory, Research & Practice - *Paul Salkovskis*

- ...through identifying key ‘mechanisms’ that maintain a disorder - key message - *David M Clark*

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...But does this extend to the ‘real world’?
An example of a real world application...

Ehlers et al. (2003)
Oxford, UK
CBT for PTSD
Effect size $d = 2.42$

Gillespie et al. (2002)
Omagh, Ireland
CBT for PTSD
Effect size $d = 2.47$

But how often do people cluster together as having the same disorder?

But... Life’s Rich Tapestry

• There are 100s of different disorders in the population
• Are we really going to train 1000s of therapists in 100s of different models?
• Average no. sessions attended is around five (Hansen et al. 2002)
• Greatest treatment gains in the first session (Lambert et al. 2001)
• 30-80% of patients have comorbid disorders
• Standardised diagnosis is not conducted (c.90mins)

Therefore, we need a universal, flexible therapy that can be started early on...
Case Example

• Mary is a 30 year old woman who worked as an office clerk
• She is on long term sick leave with depression
• Food phobia since childhood - only eats a few different processed foods
• Social phobia since childhood - fears sweating in public
• Describes herself as a perfectionist and having low self esteem - her work is never good enough
• Should we be diagnosing Mary with all of the above disorders & treating her using a protocol for each?
• Or is there another way?

Classification: Valid but not always useful?

• Classification in biology & chemistry is valid
• But is classification of disorders efficient and is it necessary for treatment in psychology?
• Imagine you are starting up a sanctuary for sick birds. Which book is most important?

• Principles of caring for a bird are very similar across species

Are there also common principles when helping people in distress?
Key factors are shared across disorders...

‘Pre-diagnostic’ era, e.g. Freud, Rogers, Ellis

**Pivotal papers:** e.g. Ingram (1990); Persons (1991); Hayes et al. (1996)

‘Transdiagnostic’ CBT for **Eating Disorders**  
(Fairburn, Shafran & Cooper, 2003)

**Biology** (e.g. COMT gene) - OCD, schizophrenia, bipolar disorder, anorexia nervosa, phobias

**Social Factors** (e.g. Expressed Emotion): Schizophrenia, mood disorders, anxiety disorders, eating disorders

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So, what is the evidence that the ‘mechanisms’ maintaining disorders might be shared?

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**Harvey, Watkins, Mansell & Shafran (2004)**

- Systematic review of cognitive & behavioural processes in Adult Axis 1 Disorders
- Attention, memory, reasoning, thinking & behaviour
- Criteria for a transdiagnostic process
  - Strong methodology (e.g. valid measure; control group)
  - Present in ALL disorders & over 4 disorders
- 12 ‘definite’ Transdiagnostic processes + 3 ‘possible’

- A range of implications...

Impact of the Transdiagnostic Approach

- Key manuals, such as Coping with Fears & Phobias, and Oxford Guide to Metaphors in CBT
- Special issues of Clinical Psychology Review; Journal of Cognitive Psychotherapy; International Journal of Cognitive Therapy
- Burgeoning international research groups providing further evidence


The Transdiagnostic Processes

<table>
<thead>
<tr>
<th>Attention</th>
<th>Memory</th>
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<tbody>
<tr>
<td>Hypervigilance to external threat</td>
<td>Recurrent intrusive memories</td>
</tr>
<tr>
<td>Attentional avoidance of external threat</td>
<td>Selective memory (Overgeneral memory)</td>
</tr>
<tr>
<td>Hypervigilance to internal experiences</td>
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<table>
<thead>
<tr>
<th>Reasoning</th>
<th>Thinking</th>
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<tr>
<td>Interpretational bias</td>
<td>Recurrent negative thinking</td>
</tr>
<tr>
<td>Expectancy bias</td>
<td>Metacognitive beliefs (Thought suppression)</td>
</tr>
<tr>
<td>Emotional reasoning</td>
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| Behaviours   | |
|--------------|-----------------
| Avoidance    | Recurrent negative thinking |
| Safety-seeking behaviours | Metacognitive beliefs (Thought suppression) |
| Experiential Avoidance | |

Looks complicated! How are all of these different processes related to one another?
Is there a Core Process?

What is it that makes these processes a problem rather than a way of coping?

I am proposing that what makes these processes a problem is a single, core process

Mary
Mary reports that she suppresses her anxiety at work by trying to push her anxious thoughts to the back of her mind. She is constantly preoccupied by looking too anxious and making a fool of herself.

Susan
Susan reports that she also suppresses her anxiety at work by trying to push her anxious thoughts to the back of her mind. She manages this OK and she says it helps her to come across as confident.

Core Process Research in a Clinical Sample

146 patients of different diagnoses

Scale of 15 different transdiagnostic processes

Factor Analysis

One Factor Solution, 13 items r > .4

Anxiety, depression
Standardised measures of thought suppression, worry & experiential avoidance
\[ r = .5 \text{ to } .7 \]

Higher scores in clinical vs. non-clinical sample,
\[ p < .001 \]

No differences based on diagnosis (anxiety/mood/eating/psychosis/somatofom)

Separate processes vs core process in predicting distress in students & in chronic physical illness

What could the Core Process be?

- **Perseveration** of concrete actions correlated with psychological symptoms, as opposed to persistence with long-term goals; n=325 (Serpell et al., 2009)

- **Impulsivity** relates to psychopathology (e.g. Franken et al., 2008)

- **Intolerance of Uncertainty** partially mediates the link between neuroticism & symptoms of anxiety & depression (McEvoy & Mahoney, 2011)

- Lower **Psychological flexibility** accounted for 24% of variance in health outcomes, versus 9% by pain intensity (McCracken & Velleman (2010)

- Poorer **attentional control** in psychological disorders vs controls (e.g. Posner et al., 2002); **inflexibility** of self-focused attention (Ingram, 1990)

- Poor **self-control** in childhood predicts health, criminal activity, addictions & financial status in adulthood; N = c. 1000 (Moffitt et al., 2011)
What does psychological distress and recovery involve?

- Qualitative Interviews & Analysis
- Natural recovery across disorders (Higginson & Mansell, 2008)
- Primary care service (McEvoy et al., 2012)
- Bipolar disorder (Mansell et al., 2010)
- Eating problems (Alsawy & Mansell, submitted)
- Use of art in recovery (Stevenson-Taylor & Mansell, 2012)
- Themes of loss of control at the ‘rock bottom’ & regaining control as the process of recovery
- Fits with wider literature

What causes loss of control?

- “Controlling an experience without regard to, or an awareness of, the important personal goals that it interferes with” – this creates goal conflict

- Not just a form of avoidance (e.g. pursuing drugs; ‘hyping self up’; avoidance can be helpful, e.g. real danger; in work settings)

- It is interference with people’s goals that leads to the chronic disruption in functioning - the key criterion of a psychological ‘disorder’

So we need to understand more about control....
Examples of how control is so important

- Homeostasis is control; this is essential for life
- Now: temperature; balance; blood sugar
- Co-ordination & movement for any activity relies on control

So how do we understand more about how control works?

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John Dewey - Control in ‘The Reflex Arc’

“What we have is a circuit, not an arc or broken segment of a circle. This circuit is more truly termed organic than reflex, because the motor response determines the stimulus, just as truly as sensory stimulus determines the movement.” (Dewey, 1896; p. 363).
Perceptual Control Theory (PCT)  
The Negative Feedback Loop

Perceive → Compare → Act

Reference Value

Controlled Variable

Disturbance

Perceivable

r = -.99

E & O highly negatively correlated; near zero between E & I and I & O
Fits Closed Loop Hypotheses NOT open loop hypotheses

Tracking Tasks - Results of 15+ Published Studies


For further papers see http://www.pctweb.org/EmpiricalEvidencePCT.pdf
The Impact of PCT

“Here is a profound and original book with which every psychologist—indeed every behavioral scientist—should be acquainted.”  
Carl Rogers (1973)

“Powers’ manuscript, Behavior: The Control of Perception, is among the most exciting I have read in some time.”  
Thomas Kuhn (1973), Philosopher of Science

“…it is our good fortune that.. Powers et al. have kindly made available an advance copy of [their] paper… we may look forward to its further development and application with high expectation.”  
Hobart Mowrer (1960)

“Powers (1973) explicitly considered the possibility that control systems can be interconnected hierarchically… it is on his reasoning that we now build.”  
Carver & Scheier (1981)

Breadth of application of PCT: see pctweb.org

- militarism
- religion
- tracking behaviour
- robotic speech
- mobile devices
- philosophy of will
- rat protective behaviour
- modelling
- the economy
- robotic grasping of fish products
- helicopter cockpit interfaces
- object recognition
- task analysis
- catching
- baseballs
- motor control
- education
- classroom discipline
- prescription errors
- crowd behaviour
- human rights
- social power
- moral identity
- tool-making
- anthropology
- marketing leadership in organisations
- work motivation
- consumer choice
- information management
- emotion
- remote controlled aircraft
- body posture
- computer animation
- for sign language
- military organisations
- walking in hexapod
- method acting
- emotion regulation
- leg motion in a cricket
- artificial cerebellum
- riots
- cardiovascular activity
- learning
- neural motor signals in touch
Key Tenets of PCT

- **Control** - Control is fundamental to life. We control our experiences. This is achieved by a closed-loop process of perceive, compare and act.

- **Hierarchies** - Control is organised in a hierarchy whereby long term goals and principles are implemented by setting goals for lower level systems.

- **Conflict** - When a person tries to control the same experience in opposing directions, conflict occurs and chronic conflict disrupts control.

- **Reorganisation** - The properties of control systems are changed through a trial-and-error learning process to reduce conflict and optimise control. Reorganisation follows awareness.

Some clinical examples

<table>
<thead>
<tr>
<th>Patient Characteristics</th>
<th>Context and Symptoms</th>
<th>Expressed Conflicts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female. 38yo, OCD &amp; bipolar disorder, history of ‘cold’ family relationships</td>
<td>Obsessive rituals of checking, tidying &amp; counting, worry, self-criticism, depression, hypomanic states, suicide attempts</td>
<td>Wants to be ‘perfect’ but also wants to be ‘normal’; wants to change but wants her mother to be responsible for any change</td>
</tr>
<tr>
<td>Male, 34yo, depression, social phobia, from travelling community</td>
<td>Fear of intimacy, believes he has AIDS, extensive worry &amp; reassurance seeking</td>
<td>Wants to live his own life but doesn’t want to desert his community; wants closeness but doesn’t want to risk intimacy</td>
</tr>
</tbody>
</table>
Example of a goal conflicts in a hierarchy (Gaffney et al., in press)
Some Implications of PCT for CBT

- Behaviour therapies cannot be ‘dismantled’ from the cognitive components to test the differences (Carey & Mansell, 2009)
- Exposure is perceptual not behavioural; exposure is not unique to exposure therapy; reorganisation to resolve goal conflict (Carey, 2011)
- Method of doing exposure by allowing the client to set their own reference value for arousal (Brady & Raines, 2009)
- Enhance client control & exploring deeper levels of goals & personal values during behavioural activation (McEvoy et al., 2012).
- Beck’s cognitive hierarchy elucidated by PCT, in addition to the notion of ‘values’ and ‘intrinsic motivation’ (Higginson, Mansell & Wood, 2011)

Implications from PCT on what is effective about therapy....

- Solutions will be successful when both sides of the conflict are accommodated
- Solutions will be unpredictable and novel
- Time taken to resolve a conflict will vary
- Logical problem solving might be ineffective
- Advice will be of limited value
- "Resistant" clients might be operating from one side of a conflict
- When therapy is less than effective a conflict formulation might be useful
It is the lack of awareness of goal conflict that is the core process...

• Person controls an experience despite the conflict it causes with control of ‘higher level’ experiences

• Returning to Mary...
  • tries so hard to *not feel anxious* at work that she avoids meetings and misses work
  • tries so hard to *not feel disgust* when eating that social situations are disrupted

Shifting & sustaining awareness

• Enable change in systems that regulate inflexible processes; ‘metacognitive’

• Help shift awareness to long term goals, values & broader perspectives
  • e.g. realising that a good working life is more important than not feeling anxious all the time & therefore experiment with ‘exposure’ to anxiety
  • e.g. exploring conflict: the need to ‘speak up at work’ vs. the need ‘not to be rejected’ - in the long term to ‘be accepted for who I am’
Method of Levels (MOL)

- Transdiagnostic cognitive therapy from PCT (Carey, 2006; Powers, 1973)
- Every therapist statement is an open question
- GOAL ONE: To help the client talk about the problem
- GOAL TWO: To ask about present moment disruptions
  - focuses on the process of control of perception
  - catches possible conflict
  - identifies higher level goals
- Iterative procedure; open-ended
- Promising findings in several pragmatic case series in primary care


Method of Levels: Example with Mary

Therapist: What do you want to talk about today?
Client: I want to talk about how hard it has been getting going.
Therapist: When you say ‘getting going’, what do you mean?
Client: Well, I started trying to be more active but I just get this voice saying to me ‘you’ll never do it!’
Therapist: Can you hear that voice right now?
Client: Yes, I can imagine this scared side of me saying it (sneers)
Therapist: I notice you sort of scrunched your nose up then. What was going on right then?
Client: I realised how much I can’t stand this side of myself
Therapist: Is there a side of yourself you can stand?
Client: Yes, the ‘real me’ which is different from the ‘scared me’
Therapist: What is it like noticing those two sides of yourself right now?
Client: It helps to see them both there and realise I have a choice (smiles)
Therapist: What made you smile just then?
Client: I don’t think I had realised that before, that I have a choice
Therapist: What makes it feel like a choice right now?....
I must check appliances all the time. What makes you grimace when you say that?
I must check appliances all the time

I must criticise myself for checking

So you check and you criticise yourself for checking. How does that work?
I must be not be responsible for bad things happening

I must be a normal and reasonable person

I must check appliances all the time

I must criticise myself for checking

How does it sound to say you want to be responsible, normal and reasonable?
I just want to be a good person!

I must be not responsible for bad things happening

I must be a normal and reasonable person

I must check appliances all the time

I must criticise myself for checking

Right, what kinds of things are you doing at the moment to be a good person?

I just want to be a good person!

I must be not responsible for bad things happening

I must be a normal and reasonable person

I must check appliances all the time

I must criticise myself for checking
Method of Levels

“Our techniques and ways of working have changed. We are less ‘mechanical’ in the way we work by focusing on the present moment processes. Now the rapport and engagement we have with our service users is a lot better. The changes they have made have led to a real difference to their lives.”

Dr Phil McEvoy, Manager, Six Degrees Social Enterprise
Six Degrees is a ‘Low Intensity’ IAPT Service that serves a population of 225,000 deals with c.5,000 referrals / year.

Pragmatic case series of Method of Levels across presenting problems in primary care…

<table>
<thead>
<tr>
<th>Authors</th>
<th>Sample size</th>
<th>Outcomes</th>
<th>Effect size (d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carey &amp; Mullan (2008)</td>
<td>25 patients (out of 69) who attended more than one session</td>
<td>Depress, anxiety &amp; stress at the last session attended</td>
<td>0.80</td>
</tr>
<tr>
<td>Carey et al. (2009)</td>
<td>63 patients (out of 120) who completed follow-up</td>
<td>Depress, anxiety &amp; stress &amp; distress three months after last session</td>
<td>0.77 for DAS; 1.36 for distress ratings</td>
</tr>
<tr>
<td>Tai et al. (in prep.)</td>
<td>12 (out of 53) providing six-week follow-up data</td>
<td>Composite of anxiety and depression (PHQ-9 &amp; GAD-7)</td>
<td>1.29</td>
</tr>
</tbody>
</table>

Pilot RCT in Primary Care
Bird, Tai Hamilton & Mansell, in prep

- N=29 (out of 55)
  - 17 MOL (up to 8 sessions; M = 5)
  - 12 Contact Service with treatment-as-usual (M = 4 sessions of CBT)
- Intention-to-treat analysis
- Significantly greater change in MOL group on anxiety & depression

Therapy Manual published December 2012

- CBT Across Disorders
- Managing ‘blocks’ in therapy
- Using PCT and Method of Levels
- 15 points of theory
- 15 points of practice
- Vignettes, adherence measures
Group intervention based on PCT
(Morris, Mansell, McEvoy, Bates, Fairhurst, & Pistorius, in prep.)

- Targets generic mechanisms as indicated by PCT (maladaptive/rigid control and higher-level goal conflict)
- Includes a range of components, e.g. exposure/awareness.
- Emphasizes experiential learning, videos, facilitator presentations and worksheets; NOT client disclosure.
- Sessions are ‘stand-alone’.

Session Themes

1. Thinking about Control
2. What blocks our control?
3. Feeling in control short-term vs getting control of your life
4. Taking control of things around you
5. Building on strengths and resources
6. Moving forward: what gets me stuck? What helps?
Pilot study

- TCC compared with low-intensity interventions (LII).

- 108 recruited and reasonable retention across initial assessment points, but considerable loss to follow-up – less in TCC condition.

- Prospective cohort study: no randomization.

AIMS: Is TCC as effective as LII? Is retention adequate? Is the intervention acceptable?

Outcomes for anxiety & depression composite across sessions

![Graph showing outcomes for anxiety & depression composite across sessions]
Experimental research on goal conflict in phobias (Oliver & Mansell, submitted)

1. Behavioural perspective – assessed in traditional paradigms

Avoid OR Approach

Target Distance for Goal 1 (e.g. to stay safe; ‘defensive distance’)

Target Distance for Goal 2 (e.g. to overcome fears)

Perceived Object/Animal/Event in the Environment

Dynamic oscillation in behaviour in an attempt to achieve both goals that appears as approach or avoidance at any one time

2. Control theory perspective – assessed in the goal conflict paradigm

Methodology

- Present spider images, spider-like images & non-spider images
- Task to identify the object
- Models real world situation – phobia interferes with life
- Compared spider phobic & non-spider phobia participants
Findings & Implications

• Spider phobic participants:
  • Performed worse at the task owing to false alarms
  • Kept the spiders at a further distance
  • Individuals show more oscillation in distance
• Is ‘exposure’ a process of reducing goal conflict (Carey, 2011)?

Resolving goal conflict as a transdiagnostic process of change?

• **Hypothesis**: Goal conflict maintains distress through loss of control when kept outside awareness by these processes
• Preliminary Findings:
  • Writing about goal conflict reduces distress about the conflict (Kelly et al., 2011)
  • Interactive computer therapist (Gaffney et al., in press)
    • Searches participant text for key terms
    • Asks questions to sustain attention on them
    • Awareness of conflict correlated with reduction in distress & mediated the effect of positive expectancy


Summary & Take Home Messages...

• A transdiagnostic approach to CBT is empirically supported
• Overlaps between constructs indicate that an integrative theoretical approach and therapy is required
• PCT provides an alternative psychological perspective – ‘behaviour is the control of perception’
• PCT proposes that mental health problems are chronic loss of control caused by unresolved goal conflict
• Method of Levels designed to shift and sustain awareness to higher levels to resolve goal conflict
• Series of pragmatic & pilot trials show promising effects across varied presentations
• Studies of basic processes consistent with the PCT model
• Larger scale research, training & dissemination required