What works for whom revisited – dramatically: The end or the beginning of the great psychotherapy debate?

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Overview

- **What works** in psychotherapy: critical approach to
  - Specific factors
  - Common factors: therapeutic alliance
  - Expectancy (placebo) effects
  - Patient factors

- A new take on treatment: a spectrum of interventions rooted in evolutionary views regarding social cognition

- The elusive environment


Why we need to know how psychotherapy leads to change

• A few mechanisms might explain many treatments

• We need to know what components to improve and what components must not be diluted

• May help us identify moderators of treatment (variables on which effectiveness may depend)
Why we need to know how psychotherapy leads to change

- Generally two approaches:
  - Specific factors/techniques
  - Common factors

- An alternative view?
Why we need to know how psychotherapy leads to change

- Different treatments are supported by evidence that they produce change
- Despite commonalities, they have very different assumptions about
  - Why these treatments lead to change
  - Different proposed moderators/mediators
- How to conceptualize personality pathology
  - See the DSM 5 saga!
What we increasingly realize

- It is unlikely that these treatments “cut nature at its joints”:
  - Common brain mechanisms
  - NIMH RDOC initiative

- If research on outcomes improves intervention techniques than therapies should have in general increased in effectiveness
Secular trends in ESs for EBTs: Effect size of CBT in 29 trials for youth depression

Year of Publication

Log Relative Risk

R = .69

Equal to Control
Are we witnessing something similar in research on psychotherapy generally?

- We do not know because we do not have the relevant studies yet

Generic/common factors approach?

- We simply do not know as most studies did not include common factors approach
The writing on the wall??
Time may not be on our side!

Studies that did include a comparison with a common factors approach show that specific treatments are not particularly more effective

- TFP/DBT/SPT (Clarkin et al. 2007)
- DBT vs GPM (McMain et al., 2009, 2012)
- DBT vs SCM (Feigenbaum et al. 2011)
- MBT vs SCM (Bateman & Fonagy, 2009)
- MBT vs SPT (Jorgensen et al. 2012)
- CAT vs GCC (Chanen et al. 2008)
Borderline Personality Disorder:  
An evidence-based guide for generalist mental health professionals

Anthony W. Bateman, Consultant Psychiatrist and Psychotherapist, UK and Roy Krawitz, Consultant Psychiatrist and DBT therapist, Waikato District Health Board, New Zealand

- Provides an evidence-based intervention for treating people with borderline personality disorder
- Written by two highly experienced clinicians, providing the generalist mental health clinician with a thorough understanding of this disorder
- Includes advice on helping the family of the patient - often neglected in the treatment
- Outlines top 10 interventions that can be given by general mental health clinicians for people with BPD which helps increase their own skills in the area

978-0-19-964420-9  
Paperback | May 2013  
£24.99
Is that all there is? Common factors?

Or, lo and behold, placebo?
Factors responsible for therapeutic change

- Extratherapeutic change: 40%
- Common Factors: 30%
- Expectancy (placebo): 15%
- Techniques: 15%

The common factors approach

What are the common factors?
Let’s examine them
The “Dodo Bird Verdict”

“everybody has won and must have prizes”

- Psychotherapies are better than no treatment
- Psychotherapies are better than medication
- All psychotherapies have similar outcomes

APA, 2012; Zuroff et al., 2010; Lutz et al., 2007
The “Dodo Bird Verdict”

- Since 1975, meta-analyses show no superiority of any bona fide psychotherapy.
- Change does not depend on specific techniques.
- Common factors are the main influencers on change.

APA, 2012; Zuroff et al., 2010; Lutz et al., 2007
The “Dodo Bird Verdict”

CBT vs. Psychodynamic Therapy for Personality Disorders
META-ANALYSIS

These results were replicated in 2007

CBT and Psychodynamic psychotherapy are equally efficacious in different settings:

- Individual outpatient psychotherapy
- Group psychotherapy
- Day-hospital individual psychotherapy
- Inpatient individual psychotherapy

**The “Dodo Bird Verdict”**

**Comparison of *bona-fide* treatments**

**META-ANALYSES**

**All *bona fide* treatments are equally efficacious for the intervention in alcoholism**

(pooled effect sizes after randomly assigning negative values = 0)

**All *bona fide* treatments are equally efficacious for the intervention in PTSD**

(pooled effect sizes after randomly assigning negative values = 0)

**All *bona fide* treatments are equally efficacious for children and adolescents with depression, anxiety, conduct disorder and ADHD**

(pooled effect sizes after randomly assigning negative values = 0)

Benish et al., 2008; Imel et al., 2008; Miller et al., 2008; Spielmans et al., 2007
The Therapeutic Alliance?

Does the therapeutic relationship explain more?

- establishment of a strong working alliance
  - My therapist and I have *figured out a good way to work* on my sad or angry emotions.
  - My therapist and I *work well together* on things that bother or upset me

- therapist capacity for understanding
  - My therapist really *understands* what bothers or upsets me
  - I feel uncomfortable talking about my thoughts and feelings with my therapist

- feeling supported and cared about
  - I don’t get much support from my therapist *(reversed)*
  - I feel like my therapist is *on my side* and tries to help me

- agreement between patient and therapist on treatment goals.
  - I *use my time* with my therapist *to make changes* in my thoughts and behavior
  - I would rather not work on my problems or issues with my therapist
The score controlling for severity/prior change in symptoms

- **negative studies**
  - 10
    - Barber et al. 1999, 2001
    - De Rubeis & Feeley, 1990
    - Feeley et al., 1999
    - Gaston et al. 1991
    - Puschner et al. 2008
    - Ryum et al. 2009
    - Strunk et al. 2010, 2012
    - Hendriksen et al. 2013

- **positive studies**
  - 10
    - Barber et al. 2000
    - De Bolle et al. 2010
    - Crits-Cristoph et al. 2009, 2011
    - Falkenström et al. 2013
    - Klein et al. 2003
    - Strauss et al. 2006
    - Tasca & Lampard, 2012
    - Webb et al. 2011
    - Zuroff & Blatt, 2006
### Fixed effects

<table>
<thead>
<tr>
<th></th>
<th>$b$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE-OM lag1 $\rightarrow$ CORE-OM</td>
<td>$-0.06^{**}$</td>
<td>$[-0.09, -0.02]$</td>
</tr>
<tr>
<td>WAI-S lag1 $\rightarrow$ CORE-OM</td>
<td>$-0.30^{**}$</td>
<td>$[-0.52, -0.08]$</td>
</tr>
<tr>
<td>WAI-S lag1 $\rightarrow$ WAI-S</td>
<td>$-0.15^{***}$</td>
<td>$[-0.19, -0.12]$</td>
</tr>
<tr>
<td>CORE-OM $\rightarrow$ WAI-S</td>
<td>$-0.03^{***}$</td>
<td>$[-0.03, -0.02]$</td>
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</tbody>
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A sample of 646 patients (76% women, 24% men) in primary care psychotherapy administered the Working Alliance Inventory and CORE session by session,
Reciprocal Influence of Alliance Outcome in Day Treatment for Eating Disorders

<table>
<thead>
<tr>
<th>Model</th>
<th>Alliance</th>
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</thead>
<tbody>
<tr>
<td>Baseline ($\gamma = 0$)</td>
<td>$-0.23 (0.08)$</td>
</tr>
<tr>
<td>Model 1 (alliance $\rightarrow$ restrict $\gamma = $ free)</td>
<td>$-0.22 (0.08)$</td>
</tr>
<tr>
<td>Model 2 (restrict $\rightarrow$ alliance $\gamma = $ free)</td>
<td>$-0.18 (0.09)$</td>
</tr>
<tr>
<td>Final model ($\gamma = $ free)</td>
<td>$-0.23 (0.05)$</td>
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SO WHY DOES IMPROVED ALLIANCE IN SESSION$_{t-1}$ LEAD TO IMPROVEMENT IN SESSION$_t$?

What happens in and between sessions?

- Is it to do with **learning about oneself**?
  - As a result of theory-specific interventions
  - As a result of common features

- Is it to do with learning from others?
  - In the treatment?
  - Outside the treatment: opening up a **social learning process** that benefits the patient **between sessions**

- Let’s remember this when we examine placebo and patient factors
Expectancy/Placebo
Factors responsible for therapeutic change

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Legend:
- Extratherapeutic change
- Common Factors
- Expectancy (placebo)
- Techniques
Expectancy/Placebo

- **Placebo effect**
  - What is placebo?
  - Why would it be effective?

- **Placere = to placate**

=> Attachment and feeling of being understood/validated

- So what works in psychotherapy??
The placebo effect is real

- Placebo effect can be robustly demonstrated and approaches treatment effects in some conditions (Wampold et al. 2005, 2007)
- Placebo effects can be undone (nocebo)
- Neurobiology is increasingly understood
- Placebo effect may be increasing, which suggests the importance of cultural factors (i.e., growing belief in /credibility of treatments)
Placebo: the key role of the ‘healing environment’

“expectation about response plays an important role in the ultimate response to a treatment”

The healing environment

- Placebo is dependent on feeling understood and validated
- By someone who is seen as an authority = trusted source of knowledge
- “invalidation, i.e. communicating a lack of understanding and acceptance to the patient (albeit unintentionally), is a key factor in understanding the nocebo response”


Placebo effect in IBS increased from 44% to 62% when provided with "warmth, attention, and confidence"

Nocebo: Cortisol response after placebo-injection, with ambiguous or positive comments

Finnis & Benedetti, 2007. Pain Clinical Updates
The attachment/mentalizing plot thickens

- Psychological mechanisms
  - Feeling validated and understood
  - Leadings to feelings of trust and expectation

- Biological mechanisms
  - Opioid
  - Cannabinoids
  - dopaminergic
  - Oxytocinergic
  - = neurotransmitters/neuropeptides involved in reward/attachment linked to mentalizing

Jubb & Benzing, 2013; Zubieta & Stohler, 2009
The mesocorticolimbic dopaminergic reward circuit
“Personality traits related to reward (and, from a neurobiological point of view, the dopaminergic activation), such as novelty seeking and reward responsiveness, accounted for about 25 to 30% of the variance in placebo analgesic responses.”

Reclusiveness was associated with poor placebo response in IBS

Extraversion, agreeableness, openness to experience associated with placebo response in IBS

Ego-Resiliency, NEO Altruism, NEO Straightforwardness (positive predictors) and NEO Angry Hostility (negative predictor) scales accounted for 25% of the variance in placebo analgesic responses.

Participants scoring above the median in a composite of those trait measures also presented greater placebo-induced activation of μ-opioid neurotransmission in the subgenual and dorsal anterior cingulate cortex (ACC), orbitofrontal cortex, insula, nucleus accumbens, amygdala and periaqueductal gray (PAG).


PET scan showed substantial release of dopamine in striatum in Parkinson patients with good response to placebo

Opioid system

Opioid system

- **Naloxone (opioid antagonist) inhibits placebo-analgesia**
- Placebo *analgesia* mediated by the endogenous opioid system

For a review, see Jubb & Bensing, 2013
Mentalizing and placebo: fMRI findings

- "anticipation of pain was associated with increased brain activity in the prefrontal cortex… while placebo analgesia was related to decreased brain activity in pain-sensitive brain regions, including the thalamus, insula, and anterior cingulate cortex…"

Colloca & Benedetti. Nature Rev Neurosci 2005

- (medial) prefrontal cortex activity is essential, as demonstrated by:
  - Alzheimer patients: no placebo analgesic response
  - rTMS of DLPFC blocks placebo response
There is more than attachment/mentalizing

“Placebo appears to be a real neurobiological phenomenon that has evolved through the selection pressure to be able to heal ourselves. The complex language and social structures of humans means that we can attribute meaning to therapeutic encounters with culturally sanctioned authority figures and we can use our attachment to such figures to generate hope for recovery.”

Haresnape C. An exploration of the relationship between placebo and homeopathy and the implications for clinical trial design. *JRSM* 2013; 30,4:2042533313490927
The broader context of placebo/treatment effects

- **Cultural factors** influence the placebo response

- This also translates into the importance of the nature of the placebo:
  - E.g. Pill form greater placebo effects for sleep problems, sham needless better for pain

=> Points to the importance of broader factors


Patient factors
Patient factors

Transdiagnostic predictors of outcome

- Personality factors
- Attachment
- Reflective functioning/mentalizing
  - Psychological mindedness
  - Alexithymia
  - Mindfulness
- Trauma/adversity

What do they have in common?

- They make individuals more open versus closed for social influences/interventions
- They prevent broaden and build cycles
Complete Mediation of Outcome by Patient Alliance and Perceived Social Support

Perfectionism

Increase in Perceived Social Support

.28

.41

Increase in Patient Alliance

.24

.11, n.s.

Increase in Adjustment

.45

Shahar et al. 2004
Perfectionism interferes with development of Enhanced Adaptive Capacity (EAC) subsequent to termination.


**Fig. 12. Impact of pretreatment perfectionism on follow-up EAC.**
PFT was also associated with higher stress reactivity in follow-up.

Fig. 13. Impact of termination perfectionism on stress reactivity in follow-up assessment. This figure appeared in Zuroff and Blatt, 2002.
The same is probably true for other transdiagnostic factors.
Interaction of Abuse, Reflective function and BPD (Fonagy et al. 1996)

Likelihood ratio: Chi-squared=8.67, df=1, p<.004
So where does this lead us…?
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Broaden and build!

Fredrickson, 2013
Dynamic interactionism model

- Specific techniques
- Common factors
- Expectancy

• Extra-Therapeutic change
Common features of evidence based treatments

- What works: **Focused, manualized** treatments that tend to
  - maximize *effective* interventions/ingredients
  - minimize *iatrogenic* interventions

- The **three C’s** of effective treatment
  - **Coherence**: offer a coherent and hope-providing approach to illness and cure
  - **Consistency**: well-balanced set of interventions based on a theory of the disorder and its cure
  - **Continuity**: adherence to the model throughout the treatment

The 4\textsuperscript{th} ‘C’ communication
The need for an evolutionary-based social cognition or communication-based approach to personality disorder
Brains and social behavior vary across different mammalian species

- **Insectivors:**
  Regulated *maternal* behaviors

- **Chimpanzees:**
  Societies of a *few dozen*

- **Modern Humans:**
  Societies of *millions* of interacting people

Humans exceedingly skilled at *large scale social interaction*

Competition for social *skills* led to the evolutions of cognitive *mechanism for collaborating* with others

Fuelled *evolution of human brain.*

Therefore *correlation in mammals between size of social group and volume of neocortex*
Gergely’s argument for the need for human natural pedagogy

- We are born into a world populated with man-made tools whose functional properties, appropriate manner of application or method of (re)production often remain in many respects epistemically opaque \( \rightarrow \) NEED COMMUNICATION

- This raises a learnability problem

- Key role of epistemic trust: trust in others as the source of knowledge about the (social) world
How Attachment Links to Learning

The forming of an attachment bond
Treatment Implications
A three-pronged approach
Three systems of learning

- System 1: Specific therapy/interventions
- System 2: Mentalizing as a common factor
- System 3: Social learning based on epistemic trust
Tuning in to the interpersonal channel

Trust opens up the social communication superhighway, enabling us to learn and change
Implications for treatment learning beyond therapy

- Treatment is not only about the **what** but also and even more so about the **how** of learning:
  - Opening the patients’ mind by recovery of epistemic trust
  - Recovery of the evolutionary capacity to learn from others
  - Leads to “broaden and build” cycles and recovery in the long term
Developing effective treatments?

- Attachment relationships
  - Epistemic hypervigilance/overtrust
    - Development of epistemic trust needed
  - Epistemic mistrust
    - Social learning can be reactivated
  - Epistemic trust
    - Social learning can be used

Broaden and build
Features of effective treatments
Three levels

- Consist of *theory-specific interventions* that foster social learning process
- By improving *mentalizing* skills
- Fostering empowerment of the patient to benefit from *evolutionary rooted capacity for social learning* and benefit from the environment through *epistemic trust*
Need to study the environment

- Is implicated in origin of psychopathology
- But also in its perpetuation
  - Suggests need for changes in evocative person-environment transactions
  - How can we foster this process?
Correlation Interdependency Globes for 4 Environmental Exposures (Cotinine, Mercury, Cadmium, Trans-β-Carotene) in National Health and Nutrition Examination Survey (NHANES) Participants, 2003-2004

Each correlation interdependency globe includes 317 environmental exposures represented by the nodes around the periphery of the globe. Pairwise correlations are depicted by edges (lines) between the node of interest (arrowhead) and other nodes. Correlations with absolute values exceeding 0.2 are shown (strongest 10%). The size of each node is proportional to the number of edges for a node, and the thickness of each edge indicates the magnitude of the correlation.
Conclusions

- While development of specific treatments has led to **justified optimism** with regard to treatment
- **Guildification** of psychotherapy may now stand in the way of developing more effective treatments
- The good news is that **integrative efforts are underway**
- Perhaps we have learned that splitting is not the best way forward in life
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