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4 How Our Thoughts Affect Our Wellbeing

People are disturbed not by things but by the view they take of them.

Epictetus

Our experiences affect our wellbeing but so does the way we think about our experience – and about our future. The best evidence about this process comes **when people are taught how to control their thoughts better.** So in this chapter we examine three types of mind-training:

- Clinical psychology (for people in distress),
- Positive psychology (for all of us),
- Meditation and mindfulness

The Experimental Method

In each area, we shall rely on evidence from **well-controlled experiments**. Such experiments are a vital part of wellbeing research. They are the surest way to establish causality in general and they are particularly important if we are trying to find out how to improve things. It is so easy to think that some method works – you see that those treated (the 'treatment group') improve. But would they have improved anyway? You can only answer this question if you had a 'control group' who were as similar as possible to the 'treatment group' but did not receive the treatment. The progress of the 'control group' then provides the 'counterfactual' with which you can compare the progress of the treatment group.

The gold standard for such a comparison is the randomised-controlled trial (or RCT). Here the treatment group and control group are drawn randomly from a single population. This does not guarantee that they are identical, but it hugely reduces the risk of conclusions that are biased because of pre-existing differences between the treatment and the control group.

The key issue with any intervention is the size of its effect. This is more important than whether the effect is or is not significantly different from zero (which also depends largely on the size of the sample).

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The size of the effect can be measured in two ways. In the first, we measure it in units of the outcome being measured. For example, we could measure the effect in units of life satisfaction on a scale of 0–10 and find that an intervention raises life satisfaction by say 1 unit.

But it is also interesting to see how big this effect is, when compared with the overall spread of life satisfaction in the population. So suppose the standard deviation (SD) of life satisfaction is 2. Then this same intervention has increased life satisfaction by 0.5 standard deviations. This is the statistic known as the **effect size** (or Cohen's *d*).[1] So for an outcome variable *Y*, the effect size of an intervention is given by

Effect size = Effect (in units of *Y*)/SD(*Y*) = Cohen's *d*

Cognitive-Behaviour Therapy (CBT)

So, let us start with clinical psychology and ask, Are people in distress just victims of their past, who can only be helped by uncovering their past? Or can they improve their state of mind by changing their present pattern of thinking?

The leading exponent of the first view was the Austrian psychiatrist Sigmund Freud (1856–1939). According to Freud, our current feelings are largely the result of what happened to us in childhood. If our experience was bad, this has a lasting effect, especially if the memories of the bad experiences are 'repressed', buried deep in the 'unconscious' part of the mind. According to Freud, it is only if these memories are brought to the surface that the person can move forward. This is best achieved through psychoanalysis. Here the patient lies on a couch with the therapist behind him, while the patient practices 'free association'. And, through this free association, the repressed memories come to light and the patient's suffering is relieved.

Many people have been helped by Freudian treatment, though it is not easy to know how many, due to the paucity of controlled trials.[2] Freud was hugely influential on our culture, especially our greater openness about sex. But Freud's view of human possibilities lacked optimism. In *Civilisation and Its Discontents*, he wrote: 'The intention that man should be happy is not in the plan of creation.'

Most psychotherapists in the generation that followed Freud had a more optimistic view of human welfare. This was particularly true of Carl Rogers (1902–1987), who founded what he called humanistic psychology.[3] More than anyone, Rogers stressed the importance in psychotherapy of the therapeutic alliance between the therapist and

[1] The following other relations hold.
(1) If the effect size (denoted *d*) is below around 0.5, a treated individual who is initially at the median will rise up the distribution by about 40 × *d* percentile points (assuming the distribution is 'normal').
(2) The correlation of the treatment dummy and the outcome variable is $d\sqrt{p(1-p)}$ where *p* is the proportion treated. For a randomised treatment, where one half the population are treated, this is *d*/2.

[2] For two of the controlled trials, see Fonagy (2015); and Leichsenring et al. (2009). There are now shorter Freudian treatments known as 'psychodynamic'.

[3] It is also true of Carl Gustav Jung (1875–1961), who first defined the concepts of extroversion and introversion and of a complex, and of Alfred Adler (1874–1937) who first defined the inferiority complex.

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the client, which is so central to much of counselling today. But the main focus of such counselling (now face-to-face) continued to be on understanding the past and how it has influenced the present.

The cognitive revolution

However, in the 1970s a completely new approach was developed by Aaron T. Beck. This approach was based on the key facts that

- our thoughts affect our feelings,
- we can (up to a point) choose to think differently
- and therefore, we can directly affect our feelings.

This approach does not ignore the past (especially when it was traumatic). But it focuses on how our current thinking is maintaining the bad feelings that we have. These bad feelings are causing '**automatic negative thoughts**'. But we can observe these thoughts, question them (where relevant) and separate ourselves from them rather than being possessed by them. In this way, we can create space for more positive thoughts – for more appreciation of what we have and for better hopes and plans for the future. This will often involve a reassessment of our goals, since unattainable goals are one of the main causes of depression. We recover by 'reframing' our thinking.

Thus was born the '**cognitive revolution**'[4] – it was cognitive because it focused on cognition (i.e., thoughts). Beck's main interest was the problem of depression. Trained as a Freudian psychotherapist, he had been taught that people were depressed because of repressed anger, which they redirect against themselves. According to this theory, that anger is revealed in their dreams and, from uncovering the anger, patients can be relieved of their depression. Wishing to make psychoanalysis scientific, Beck therefore arranged with a team of colleagues to compare the dreams of depressed and non-depressed people. It emerged that depressed people had **less** hostile dreams than other people did. Instead, the dreams of depressed people mirrored quite closely their conscious thoughts while waking – thoughts of being victims, with the world against them and themselves tormented, rejected or deserted.[5]

So Beck altered his treatment. He got his patients to observe their 'negative automatic thoughts' and replace them with thoughts of a more constructive kind. In 1977, Beck published the first randomised controlled trial of cognitive therapy for depression, comparing it with the leading anti-depressant.[6] The results were striking – cognitive therapy was more effective. Since then there have been thousands of such trials, and the current wisdom is that cognitive therapy and anti-depressants are equally effective at ending a serious depressive episode.[7] But, after the depression ends, anti-depressants have no effect on the risk of subsequent relapse (unless you go

[4] Beck (1979). See also Beck and Beck (2011); and Layard and Clark (2014). [5] Beck (2006).
[6] Rush et al. (1977). [7] Roth and Fonagy (2005).

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on taking them), while cognitive therapy (once experienced) halves the subsequent rate of relapse.[8]

The behavioural revolution in clinical psychology

Originally the 'cognitive revolution' in psychological therapy focused on depression. In the meantime, there was a '**behavioural revolution**' in progress, for the treatment of anxiety disorders. This was based on the ideas of the Russian physiologist Ivan Pavlov (1849–1936), who showed how dogs could be conditioned to respond to a stimulus, depending on the good or bad events associated with the stimulus. The South African doctor Joseph Wolpe (1915–1997) inferred from this that humans who were currently terrified of doing something could be progressively desensitised by the step-by-step experience that nothing bad resulted when they did that something (like public speaking or going out of the house). He founded behaviour therapy.

In the 1960s, Gordon Paul put this theory to the test by doing the first controlled experiment in clinical psychology. The aim was to cure the phobia of public speaking. Paul compared systematic desensitisation with two other approaches: insight-oriented therapy (based on Freud's ideas) and no treatment at all. Systematic desensitisation worked best.[9]

In the decades that followed, people found that anxiety disorders were helped not only by behavioural methods but also by better styles of thinking. Likewise, depression was helped not only by better thinking but also by behavioural activation. And so was born **Cognitive-Behaviour Therapy (CBT),** which focuses on helping people change unhelpful patterns of thinking and thus bring about changes in behaviour, attitude and mood.

But CBT is not actually one thing. It is a set of different therapies for different problems. For example, for post-traumatic stress disorder (PTSD), there has to be a detailed revisiting of the traumatic experiences. But the essential focus of CBT is on directly restoring people's control of their inner mental life and thus enabling them to move forward. If undertaken with fidelity in the field, CBT produces a recovery rate of at least 50% after around 10 sessions – and for anxiety disorders the subsequent rate of relapse is very small.[10]

Critics of CBT say, correctly, that it concentrates on dealing with the symptoms that are distressing the patient rather than on uncovering the causes of these symptoms. It is, therefore, they say, no more than a 'sticking plaster'. But the test is surely the outcome as experienced by the patient. There is nothing wrong in dealing with symptoms rather than causes – it happens all the time in medicine, especially in surgery. The encouraging thing is that it gives immediate hope – that humans can take control of their inner life by conscious activity, properly trained.

CBT is not the only form of effective psychological therapy. For anxiety disorders it is the best, but for depression, UK government guidelines also recommend interpersonal psychotherapy, brief psychodynamic therapy and a specific form of

[8] Hollon and Beck (2013). [9] Paul (1966). [10] Hollon and Beck (2013).

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counselling.[11] And of course drugs also help for severe depression and some forms of anxiety. But we have focused on CBT because it illustrates the key point of how our thinking can influence our mood.

Positive Psychology

If thoughts influence moods for people in real distress, the same must surely be true of everyone else also. This was the insight of Beck's leading followers. In his presidential address to the American Psychological Association in 1998 Seligman proposed a new concept called **Positive Psychology**.[12] This applies the same principles as CBT to the lives of everybody. Everybody, it says, can be happier if they have better control of their mental lives and more sensible goals. The secret is to build on your strengths rather than to correct your weaknesses.[13] And to look for the best in any situation and the best in any person – to reach out and to feel grateful for what you have.

There are many good books on positive psychology[14] and there are many controlled trials of the procedures it recommends, such as

- a daily gratitude exercise and
- a daily extra act of kindness.

At this point it is enough to present the 10 Keys to Happier Living, distilled from this literature by the movement called **Action for Happiness**. The five items in the left-hand column (see Figure 4.1) are five recommended actions for every day – the psychological equivalent to the daily five fruit and vegetables recommended by the WHO.[15] The five items in the right hand column are the main long-term dispositions we should cultivate in ourselves. To promote the 10 Keys, Action for Happiness has offered an eight-session course, which has been subjected to a randomised control trial. This showed that, two months after the course ended, the treatment group had gained over 1 point in life satisfaction (on a scale of 0–10), which is more than occurs when someone gets a job (after being unemployed) or finds a partner to live with.[16]

A key issue in positive psychology is **attention**. What we focus on affects not only what we do (as in Chapter 3) but also how we feel. As we have seen, when humans evolved in the Savannah, there was a daily risk of being killed. So a high level of anxiety was functional, and it became embedded in our genes. As the psychologist Rick Hanson has put it 'the mind is like Velcro for the negative and like Teflon for the

[11] See latest guidance from NICE.
[12] A forerunner of this approach was the concept of Emotional Intelligence popularised in Goleman (1995).
[13] Seligman (2002) offers techniques for identifying your strengths.
[14] Seligman (2002); Ben-Shahar (2007); Lyubormirsky (2008); Gilbert (2009); Dolan (2014); and King (2016).
[15] These were originally developed by the New Economics Foundation – see Foresight Mental Capital and Wellbeing Project (2008) p. 24.
[16] Krekel et al. (2020). The course is now six sessions, either online or face-to-face. Another course is available online through Corsera called 'The Science of Wellbeing', based on the highly successful course at Yale University taught by Laurie Santos.

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Figure 4.1 10 Keys to Happier Living
Source: Action for Happiness, 10 Keys to Happier Living

positive'.[17] But in most of today's world, people are much safer from violence than they have ever been.[18] So most people are more anxious than is good for them – they devote excessive attention to what goes wrong. The way to be happier is to devote more attention to what goes right.

Positive thinking has been subject to considerable criticism by those like Barbara Ehrenreich, author of *Smile or Die*, who says it encourages a Pollyanna attitude. According to these critics, it makes us overlook the bad stuff that is going on. Instead, these critics advocate 'realistic thinking'. Obviously when it comes to other people, realism is vital – we should attend to their suffering. We need to notice it and help them – and the evidence shows that happier people are more helpful to others.[19] But, for ourselves, it is we who can, in part, create our own reality. The glass may be both half-empty and half-full: but how much better to think of it as half-full!

Meditation and Mindfulness

The habits encouraged by CBT and positive psychology have much in common with those advocated by Eastern wisdom, especially Buddhism.[20] The East has developed a

[17] Hanson (2016). [18] Pinker (2011). [19] Huppert (2009).
[20] The teaching is also similar to that of the Stoics in the Roman Empire, but the Stoics did not recommend any particular spiritual practice.

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more effective method of mind-training than is common in the West.[21] It is **meditation**. There are many forms of meditation, but the most common and the most studied is mindfulness.[22]

Mindfulness means focusing on the present in an open, aware and non-judgemental frame of mind. You set aside the past and the future and you simply observe the present moment. You choose what you will attend to, and then attend to it. If your mind drifts off, you gently bring it back.

At first, the most natural object of attention is your breathing (where simple breathing exercises are also very useful).[23] But you can then move on to different parts of the body (including a full 'body scan'), and then you can observe your thoughts, be they happy or sad. You do not push sadness or anxiety away, but you observe it from outside in a friendly way, so that it no longer possesses you. And you practice compassion towards yourself. If you feel you have done something stupid or wrong, you think, What would I say to a friend who was in this state? And you say just that to yourself.

Much mindfulness meditation in the West is based on Jon Kabat Zinn's eight-session course of Mindfulness-Based Stress Reduction (MBSR) developed at the University of Massachusetts. This was originally a course for people in chronic pain, but it has proved very beneficial to many other people. For adults, MBSR has been found to have beneficial effects on mood and sleep, on substance abuse and on concentration and empathy.[24] It also affects the body. Mindfulness has been found to increase the amount of grey matter (critical for learning) and the regulation of emotion, and to increase telomerase, which increases longevity.[25] In one randomised trial, four months after the MBSR course was over, members of the treatment group and the control group were given a flu jab. The meditators produced more antibodies.[26]

For children, comparable courses in mindfulness have been evaluated in a meta-analysis of 33 separate studies. They were found to have significant positive effects on depression ($d = .22$), anxiety ($d = .16$) and social behaviour ($d = .27$).[27] Some studies have also found good effects on academic learning.[28]

[21] There has of course been meditation in every religious faith (see below).

[22] For a practical self-help guide, see Williams and Penman (2011). The best informal introductions to mindfulness are by the Vietnamese master Thich Nhat Hanh (Hanh [2001], [2008]). For a scholarly introduction, see Williams and Kabat-Zinn (2013).

[23] An effective and immediate way to reduce stress is to breathe in deeply and hold for 20 seconds before breathing out and then to repeat this two more times. See Zaccaro et al. (2018).

[24] Baer (2003).

[25] Holzel et al. (2011); and Jacobs et al. (2011). Note, however, that Kral et al. (2021) found no changes in grey matter.

[26] Davidson et al. (2003).

[27] Dunning et al. (2019). In one trial, mindfulness training was also shown to reduce depression and burnout in teachers (Jennings and Greenberg [2009]). But see also Kuyuken et al. (2022) for the effects when there is no organised practice once the course has ended.

[28] Bakosh et al. (2016); and Bennett and Dorjee (2016).

Mindfulness meditation is totally non-judgemental. But there is another powerful strand in Eastern wisdom: the importance of compassion. A different form of Buddhist meditation focuses on developing compassion for others. In this, the meditator wishes first for her own wellbeing, then that of a loved one, then of an enemy and finally of all humankind. In a meta-analysis of 21 studies, this practice was found to increase wellbeing as well as compassion and to reduce depression and anxiety – all with effect sizes around 0.5.[29] Compassion meditation has also been found to increase levels of the feel-good hormone oxytocin and to improve the tone in the vagus nerve, which controls the heart rate.[30]

Even so, there are some people for whom meditation does not work particularly well. But everyone can find some way of regulating their thoughts to improve their wellbeing.

All religions offer some way of doing this, but we leave the discussion of religion to Chapter 14. We can end this chapter with the Dalai Lama, who of all Eastern teachers has been the most influential in the West. He was until recently the head of the Tibetan government in exile but practices the life of a monk. He has also travelled and taught widely in the West. His many books teach ways to achieve happiness that may or may not include meditation. But at every stage the Dalai Lama, who has a strong scientific sense, stresses the unity of mind and body.[31] This is the theme of Chapter 5.

Conclusions

As we have seen, there are many interventions that can make us feel better through influencing our patterns of thinking and our reactions to the world around us. But these interventions tell us more than that. They show (through experiments) a more general truth: that how we think has a major effect on how we feel. Of course the opposite is also true: our feelings affect our thoughts, but it is mainly through our thoughts that we can manage our feelings.

Questions for discussion

(1) If a person is suffering, is it sufficient to ameliorate the symptoms, even if you cannot uncover or remove the cause?
(2) Is it ultimately dangerous to look on the bright side of things?

[29] Kirby et al. (2017). The effect sizes were as follows: compassion 0.55, wellbeing 0.51, depression 0.64 and anxiety 0.49 – large effects.
[30] Frederickson (2013); Kok et al. (2013). See also Goleman and Davidson (2017).
[31] He is co-founder of the Mind and Life Institute, which produces a series of scientific books on mind-body interaction.

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Further Reading

Goleman, D. (1995). *Emotional Intelligence*. Bantam Books.

Greenberger, D., and Padesky, C. A. (2015). *Mind over Mood: Change How You Feel By Changing the Way You Think*. Guilford.

Lyubomirsky, S. (2008). *The How of Happiness: A Scientific Approach to Getting the Life You Want*. Penguin Press.

McManus, F. (2022). *Cognitive Behavioural Therapy: A Very Short Introduction*. Oxford University Press.

Seligman, M. E. P. (2011). *Flourish: A Visionary New Understanding of Happiness and Well-Being*. Free Press.

Williams, J. M. G., and D. Penman. (2011). *Mindfulness: A Practical Guide to Finding Peace in a Frantic World*. Piatkus.

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