



A fuller explanation of CBT

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The cognitive side of CBT

Perhaps this will help make it clear. You must have noticed that when you are experiencing an emotion, your body feels different. This is because you're sensing certain distinctive changes in your internal physiology. It's no accident that the word "feeling" can be a synonym for "emotion." In other words (to simplify things a bit) . . .

To have an emotion is to feel the physical (bodily) consequences of our thoughts.

Imagine the following situation:

A friend is due to meet you for dinner at your house at 7:00. But it's now past 8:00, and there's been no sign of her —not even a phone call. How are you going to feel about this?

Well, as this diagram makes clear, there's more than one possible answer:

	What you think	How you feel	What you do
Friend is late for dinner	"She might have been hurt on the way here."	Worried or anxious	Call hospital ERs to find out if she's there
	"She didn't bother to let me know she was delayed."	Annoyed or angry	Chew her out, or act chilly, when she does show up
	"It doesn't matter to me whether people are on time."	Indifferent	Nothing in particular
	"I needed the time to fix the house up anyway."	Relieved	Relax and enjoy yourself

Now of course there are ways not shown in the diagram in which someone might interpret a friend's being late, and different way —as a result —in which he or she might react emotionally and behaviorally.

Note also that your thoughts about your friend's lateness don't affect just your feelings —they can also influence the actions you take.

And while it might seem silly to consult a psychotherapist over nothing more than a dinner date, the basic principle is exactly the same when it comes to major and more complex problems.

As the philosopher Epictetus said almost 2,000 years ago:

"The thing that upsets people is not what happens but what they think it means."

People —and I mean all people, not just therapy clients —routinely distress themselves and others with arbitrary interpretations of what is going on. Sometimes this is done out of blind habit, or under the influence of a bad mood or bodily discomfort; sometimes it happens for quite other reasons. Challenging, and at times changing, one's doubtful interpretations of events is much of the cognitive work of CBT.

It's important not to get this confused with the ever-popular practice of "positive thinking." In CBT the goal is accurate and rational thinking —the kind that is based as much as possible on logic and the available facts. Most of the time this does result in a more positive outlook —but there are also times when its value lies in correcting an undesirably rosy view of things.

On the other hand . . .

So far, we've been looking at how our thinking influences our feelings and behavior. Before going on, however, we also need to look at the converse —how our feelings and behavior influence our thinking.

For a wide-ranging review of the first part of this vital topic, see Stanford psychologist Gordon Bower's speech and monograph, [Emotion and Social Judgments](#). (File size is 55KB, but well worth it —there's enough food for thought in this paper to keep you topped up for weeks.)

If something happens to which you automatically and reflexively react with fear or anxiety, your thoughts will tend to be about danger and the consequences of being harmed. Similarly, if your instant reaction to an event is to feel angry or sad or happy —and especially if you also act on your feelings —your thoughts (including your recollections of the past and your vision of the future) will be biased in the same direction

Emotional reactions arise chiefly in a region of the brain called the limbic system, which is very fast-acting and can respond to events on the basis of quick-and-dirty impressions. This nimbleness of response has survival value in some situations —such as noticing a fast-moving object that could be a car or truck approaching as you cross a street.

But on other occasions —such as complex situations where you need to call on more of your accumulated knowledge and experience, speed can be a disadvantage. The more complete information you need at such times has to be processed by the lateral prefrontal cortex of your brain —which gets into gear about half a second later than your limbic system. This short delay is often enough that your thinking, under the influence of an automated emotional reaction, heads off in a biased direction that you may come to regret.

In instances like these, the influence of thinking on emotions can be one of sustaining or amplifying an emotion as opposed to initiating it. (To see how this works, remember some occasion when something made you hopping mad, and you then fed the feeling with minutes or hours of angry thoughts —only to discover later on that there had simply been a misunderstanding.)

In practice, treating this kind of problem clinically involves methods traditionally associated, not with cognitive therapy, but with behavior therapy. To which we now turn.

The behavioral side of CBT

You've probably heard about the Russian physiologist Ivan Pavlov. The one who taught dogs to salivate when they heard a buzzer. Since we're going to be talking about Pavlov's contributions to psychotherapy, you may as well know that he looked exactly like this guy with the cool Edwardian beard



Much, though far from all, of behavior therapy derives from Pavlov's demonstration that events occurring closely together in time are likely to be stored in the brain in a sort of mental package. Because Pavlov set off the buzzer just as he was about to give the dog some food, the buzzer and the food became associated with each other. As a result, after a while the dog began salivating when he heard a buzzer —whether he was given food or not.

The next thing Pavlov discovered was that if he sounded the buzzer too often without coming through with some food, the dog no longer salivated just because there was a buzzer buzzing. In behavior jargon, this is called "extinction." It refers to the fact that a conditioned reaction —in humans as well as dogs —can become substantially overridden if it is no longer "reinforced."

(Reinforcement, in the Pavlovian learning model, means that some event like the sounding of a buzzer —which doesn't naturally bring forth a reaction such as a salivating —is experienced at the same time as something that does, such as the sight or smell of food. When this happens, the event can become an artificial cue or signal that triggers something resembling the natural response.)

P.S.: Recent developments in learning theory —corroborated by recordings of dopamine-connected neurons of the brain's "reward system" —suggest that Pavlov's dogs didn't learn to salivate just because they heard the buzzer at the same time as they received food. They learned it when the arrival of food came as something of a surprise, since they hadn't previously expected buzzers to be a signal for food. Makes sense: if they'd already known about the connection, what would there have been for them to learn?

A couple of practical examples

For example, if you are deathly afraid of riding in elevators, we can usually extinguish that fear if you are willing to crank up your courage and take one elevator ride after another* until you are no longer unreasonably afraid. It works because your conditioned fear reaction is not being reinforced —that is, the elevator doesn't fall or get stuck for hours.

(On the other hand, if you give in to the fear and avoid elevators, you can pretty much count on spending the rest of your life being afraid of them.)

Or, to give another example, let's imagine that you become depressed following a setback such as the loss of a loved one or the collapse of your efforts to achieve some valued goal.

You may feel that it's useless to try to live a normal life, since your energy and ability to enjoy things seem to have vanished. You probably expect that pursuing your goals will merely lead to disappointment, frustration or failure —in other words, you have a sense of futility. Acting on these feelings, you drop out of your usual activities and social relations. The result: your life becomes even more constricted and unrewarding, and your morale goes still deeper into the hole.

Getting back to normal

What we are likely to do in CBT is move you gradually back towards leading a normal life, without waiting for it to feel as good as it once did. If you diligently follow this plan, the renewed contact with your friends, family and regular activities should eventually bring your mood and feelings back to normal. This is because before you became depressed, your usual activities and relationships were associated with more energy and enjoyment than you are feeling now. We are trying to take advantage of those connections as a means of bootstrapping your morale to a more satisfactory level.

(You might like to see the report of a [1996 study](#) of treatment for depression suggesting that this kind of behavioral intervention may be as effective as full-scale cognitive behavior therapy for depression.)

Other behavioral aspects of CBT have nothing to do with Pavlov or "conditioning" of any kind. For instance, we often work with patients to experiment with taking some action that is likely to prove beneficial and instructive. Or, right in the office, to enact (rather than just talk about) an interpersonal or internal conflict, in the manner of Gestalt therapy "chair work" or psychodrama.

These have been just a few illustrations of the hundreds of behavioral interventions that are possible. But perhaps now you have at least some feel for the "B" in CBT.

Why cognitive? Why behavioral?

Everyone, including cognitive behavior therapists, understands that emotions and moods are governed by factors in addition to one's own thinking and behavior. However, as a practical matter virtually the only means of access to our moods and emotions are the cognitive and behavioral routes.

In order to voluntarily change how we feel, we have to go about it indirectly, not directly. There is no direct way to influence our feelings and moods. Brains simply aren't built so as to make this possible.

Now, according to Prof. James Gross of Stanford, a leading researcher in the field of emotion regulation, there are five points in the generation of an emotion at which it may be possible to exercise deliberate influence:

- selection of the situation
- modification of the situation

- deployment of attention
- change of cognitions
- modulation of responses

The first, second and fifth of these points are targeted in behavior therapy, the third and fourth in cognitive therapy. As you no doubt suspect, most of the time some combination of behavioral and cognitive methods is needed.

As an experiment, just try to change whatever mood or emotional state you are in right now OK, did you succeed? Then how did you do it? Was it mainly cognitive, mainly behavioral, both — or neither one?

What you did	Mainly Cognitive	Mainly Behavioral
You thought or imagined something that would support the mood or feeling you wanted	<input checked="" type="checkbox"/>	
You called up a memory of a time when you felt that way	<input checked="" type="checkbox"/>	
You redirected your attention to other thoughts, images or activities	<input checked="" type="checkbox"/>	
You performed some physical action, such as walking around the room or working out		<input checked="" type="checkbox"/>
You meditated, or did a deep-breathing or relaxation exercise		<input checked="" type="checkbox"/>
You talked to someone, perhaps trying to get them to do something that would change how you felt		<input checked="" type="checkbox"/>
You hypnotized yourself, or got some else to hypnotize you	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
You took a drink, smoked a cigarette, played some music, or popped a Valium		<input checked="" type="checkbox"/>
No, what I did was...	?	?

If you did something that you believe was a direct, not an indirect way to change your feeling state, please send an e-mail to me using [this link](#). I'd like to know what you came up with.

Finally, a word about one of the behavioral methods listed above —trying to get other people to change their thinking and behavior:

Inducing other people to change their minds, or to act differently, can do wonders for how one feels. However, in practice it is often easier —and can be more satisfying in the long run —to alter one's own thinking and behavior. And in any case the main obstacle to influencing others to behave as we would like can easily be our own thinking and behavior.

For here is the central secret of behavior modification:

**In order to modify somebody else's behavior,
you first have to modify your own.**

In other words, if you keep on doing the same thing, you'll most likely get the same result. Same old → same old → same old.

Hey! Whatever happened to . . .

. . . Dreams?

Some cognitive behavior therapists (including myself) do in fact work with patients' dream recollections. After all, research has demonstrated that cognition of a sort can go on outside of awareness.

But the “cognitive unconscious,” as it is called in experimental psychology, differs radically from the Freudian version. And Freud’s claim to have uncovered the secrets of dreaming was sheer chutzpah —there were so many interpretive wildcards in his published case histories that it is a wonder they were ever taken seriously.

Dreams sometimes do point to thoughts —and the emotions associated with them —in ways that are therapeutically useful, and might go unnoticed otherwise. And sometimes they don’t. Their value is real but in general rather limited, and certainly doesn’t justify the central role they are given in psychoanalysis and its derivatives.

. . . My horrible childhood?

If you have good reason to think your childhood was horrible, it may indeed have had something to do with your need for therapy now. But people can develop psychiatric symptoms for other reasons, and not all of them are readily explainable. Moreover, there are people whose childhoods were perfectly appalling —yet they weren’t severely affected. (This can happen if they were lucky enough to have been born with genes for a hardy nervous system —or if, despite having a messed-up family, they got involved with sane and supportive peers.)

The point is that every problem must have begun somewhere, and discussing how it began may or may not be helpful in helping to overcome it. Some patients profit from a certain amount of reminiscing and emoting about childhood events, while for others it is largely a waste of time.

Quite often, in fact, thinking and talking about past troubles turns out to be downright harmful. It can lead to emotional pain that serves no useful purpose. It can lower your stress threshold so that you make mistakes that could have been avoided. And it can divert your attention to past events about which nothing can any longer be done —at the expense of your present situation and the opportunities it offers for constructive change.

In CBT, if childhood events are given much attention, the point is not usually to explain today’s predicaments in terms of the past. This exercise has proven to be of limited value therapeutically. The chief value (when there is any) in going over disturbing memories is to identify repeating patterns that can give the therapy more focus and make it more efficient.

A second goal, for some people, would be to provide “exposure without reinforcement” —i.e., habituation of painful emotions that serve no good purpose and are undermining your efforts to lead a good life. As part of this process, troubling events that you have not yet talked freely and reflectively about (“unfinished business”) can be put into perspective, so that they no longer act as a drain on your mental and physical resources.

A further difficulty with memories of childhood is that they aren’t necessarily accurate, let alone unbiased. Memory is a tricky thing, particularly when strong emotions are involved. Therapy needs as much as possible to be grounded in the truth, and too much reliance on memories of the past —especially the remote past —can result in countertherapeutic distortions.

. . . Id, ego and superego?

Actually, if you go back and read the German, you will discover that Freud’s words were das Es, das Ich and das Überich English being a Germanic language, these terms would better be translated as the It, the Me and the Over-me. But James Strachey, Freud’s first English translator, thought he had to drag Latin into it, even though his native German was good enough for Freud himself.

Goes to show what happens when you let one of that Bloomsbury crowd have the assignment.

However you translate the terms, they stand for extremely broad categories of mind and behavior. So broad, in fact, that they are often used in ways that seem profound but don’t really mean anything. Which reminds me of a stock joke in psychology that goes like this:

Q. What is a psychoanalytic diagnosis?

A. It is a way of describing the patient’s problems such that absolutely nothing can be done about them. And to do this will take several years at three times a week.

. . . The couch?

There is a couch (brown) in my office. Its uses are, in order of importance . . .

- 1st For people to sit on.
- 2nd To fill that otherwise empty-looking spot in the room.
- 3rd For people to lie on while I teach them "progressive relaxation."
- 4th For doing occasional hypnotherapy.
- 5th (and last) For a few minutes —not a whole hour —of free association or something resembling it.

. . . The inferiority complex?

Most people have at least a touch of it. (This was Alfred Adler's idea, not Freud's.)

And most of them don't. (Freud was vain enough not to have one, so he and Adler fought about it.)

. . . The obligatory picture of Freud on the wall?

By now you have doubtless decided that I don't have one of those famous totems in the office. You're right —I don't. But when I'm seeing a new patient who has spent years in psychoanalysis and (like Woody Allen) had almost nothing to show for it, there is now a picture that does my indignation justice.

The picture is of Freud's statue being installed on the campus of Clark University in Worcester, Massachusetts, where Freud gave his only American lectures. (Several members of the Psychology faculty objected to the monument —but they lost the argument to the university's president, who thought it would lend prestige to the institution, i.e., help him raise money.)

To give the man fair credit, it has to be said that he was the first person to make psychotherapy a popular subject. More important, though, he and his daughter Anna were the first to give a systematic account of "ego defenses" —the various stunts we use to preserve our reputations, both publicly and in the privacy of our own minds, for being ethical and competent people.

As social animals, we are faced with strong incentives to justify our actions to other people —and as language-using animals, we have a unique and efficient means of doing so. This, however, creates various kinds of problems when our justifications are untrue, or at least are less than the whole story. These problems in turn provide a good deal of employment for therapists, whether they are of the psychodynamic persuasion or the behavioral.



T&G Staff/BETTY JENEWIN

On the minus side, Freud's celebrated case studies have turned out to be largely inventions of his own imagination. He was not only vain, but a master of sophistry, self-deception and salesmanship. He indulged in unfettered and highly subjective speculation —and proclaimed his conjectures to be laws of human nature. And he developed a cult-like following that persists to this day. One of his severest critics, Nobel-winning scientist Sir Peter Medawar, put it like this: "Psychoanalysis is the most stupendous intellectual confidence trick of the 20th century."

In short, while Freud's work advanced clinical psychology and psychiatry in some respects, in other ways it obstructed their development by several decades.

For a more complete account of how Freud's theorizing led the mental health field astray, follow [this link](#).

(On a personal note, I was trained in psychodynamic therapy and practiced it for years, but grew increasingly dissatisfied with its effectiveness. In my struggle to find something better, I managed to invent a primitive form of CBT. Then I discovered, by reading research reports I'd previously overlooked, that such an ambitious project wouldn't be necessary: that particular wheel had already

been invented. There went the Nobel I was dreaming of, right up the spout. But life does go on, doesn't it? Sigh.)

For a comprehensive critique of Freud and psychoanalysis, you might want to read Frederick Crews's book, *Unauthorized Freud: Doubters Confront a Legend*. There are many other books in this genre, but for most people Crews's is the best place to start. You can order a copy from Amazon.com by clicking on the "Books I often recommend" link in the Table of Contents. Or, come to think of it, you can order it right from [here](#). But hurry back —because as you will see below, there's more to come that's worth your reading and thinking about.

And if you'd like to see psychoanalysis and CBT compared point-by-point, [click here](#) to see an interesting excerpt from Davison and Neale's leading textbook, *Abnormal Psychology*, 8th edition.

Now don't go away —there's more, and it's better still. The next page is [Learning theory: A fuller-fuller explanation of CBT](#). As long as you've come this far, why not find out still more? There are good reasons why CBT works so well, and this page will tell you about some of the main ones.

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