Do Faces Cause Depression?: Self-Experimentation in Science

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Original link

It all started, Seth Roberts says, when he wanted more practice doing experiments. The closest thing at hand was himself. He was trying to treat his acne and, although convinced that the pills were effective and the cream was not, he decided to chart their effectiveness anyway for practice. The results were the exact opposite of what he expected — the cream helped and the pills did not. His acne went away and Roberts went looking for bigger problems to solve.

It's obvious that sleep follows some sort of circular rhythm, an inner biological clock that makes us tired at the end of the day and refreshed at the beginning. This is the clock that gets thrown off when we travel and thus causes jet lag, for example. But what if other things mess with the clock than simply when we go to sleep?

It wasn't simply academic for Roberts, who frustrated from a serious bout of "early awakening", in which he'd wake up around 4am feeling tired but unable to get back to sleep for another couple of hours. Roberts searched for a way to cure his problem but none of the standard methods seemed appropriate. So he decided to research the subject.

A 1979 study of people in caves suggested that contact with other people affected when we fell asleep and a 1985 survey of daily activities in 12 countries led to another clue: Americans were much more often awake around midnight than people in any other country and the only distinguishing factor seemed to be late-night television. Perhaps, Roberts thought, watching television could influence sleeping rhythm?

The most popular late-night television show at the time the study was done was the *The Tonight Show*, with its person-heavy monologue. So one morning Roberts decided to watch Jay Leno and David Letterman's monologues. It seemed to have no impact; an otherwise normal day. But the *next* morning he woke up feeling great.

It was hard to believe that the television show could be responsible, so Roberts decided to formalize the study. Every hour he'd write down three numbers between 0 and 100 to measure how unhappy/happy, irritable/serene, and reluctant/eager he was. And then he tried turning the TV watching on and off again to see if it impacted his mood. It did — he always felt better the next day.

So he tried adjusting the show and television set, finding that, despite his love for *The Simpsons*, life-size human faces at about a meter away for 30 minutes worked best.

I have to concede, at this point, that the results sound fairly absurd and unbelievable. But reading Roberts's papers on the subject, what's striking is how careful he is about the subject. An actual psychologist, publishing in psychology journals, he's taken into account every objection. The results *cannot* be, as one would first expect, simply self-induced by his own wishes. For one, Roberts took quantitative notes, so his memory couldn't be playing tricks on him. For another, the size of the difference was too large to be explained through normal explanations. If Roberts could simply *will* himself into waking up happy, why hadn't he done it before? Nor could such an explanation explain the numbers's careful sensitivity to how similar the TV watching was to human face contact, especially since Roberts was originally hoping to be able to watch his favorite shows, not face-heavy ones like *Charlie Rose*.

He also began noticing something he wasn't expecting — his mood wasn't just raised the next morning, it was lowered that night. This graph shows the pattern:

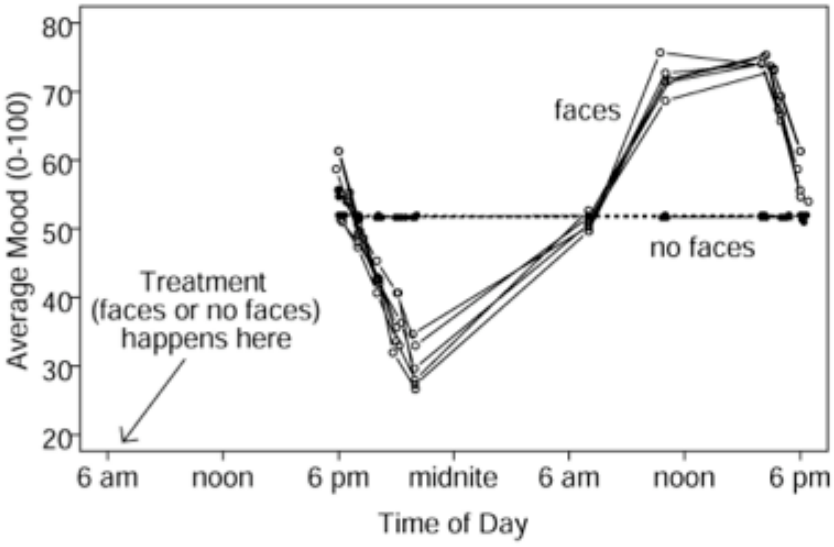

Figure 1: Graph of mood over the course of 48 hours based on whether faces were seen or not.

Mood spikes up from 6am to noon, stays high during the day, and then takes a dive around 6pm. (When not seeing faces, mood stays flat.)

And what about all those people who watched TV at night? Roberts found that watching TV after 6pm also reduced mood, with the effect more pronounced

the later it was watched.

So what's going on? If you look at faces in the morning, you feel worse 12 hours later but better 24 hours later. But the effect is muted if you see faces in the evening. Roberts theorizes that your body is using the faces to set its inner mood clock, which works similarly to its inner tiredness clock. You want to be happy during the day (as opposed to the night), but how do you tell when the day starts? The body assumes that you gab with people when you wake up, so it uses seeing other faces as a way to synchronize the clock. Of course, you want to make sure you've got the timing right on the nighttime side as well, so if you see faces late in the evening it tries to tweak the clock then as well.

This is consistent with what we know from other sources about depression. Depression is highly correlated with insomnia as well as social isolation and is often treated by disturbing sleep. The Amish, who eat breakfast communally and go to bed very early, have 1/100th the rate of depression as other Americans. And depression rates increased by 10 times in the 1900s, around the same time radio/TV, electric lighting, and other such things became common.

I'm hoping to get a chance to test this myself, but it sure appears that one easy way to improve mood is to look at faces in the morning.

Of course, even more than mood (which is generally considered difficult to tweak) people want to improve their look. And Roberts has done research on this as well, concluding that the body uses a similar internal system to measure the ideal weight. The result is his Shangri-La Diet which uses similar techniques to trick the body's internal system to cut down on appetite. His book on the subject, *The Shangri-La Diet*, comes out this week. It's been hailed as a diet book unlike any other. More on that next time.