

[Make sure to include your name and student ID# on the homework. You don't have to include these instructions—just give me your essays.]

A placebo is a treatment—a pill, injection, fake surgery—that has no medicine in it, and is only pretend.

The placebo effect is the strange fact that giving people placebos causes them to get better, compared with giving them no treatment at all.

The explanation for this is that people believe that the placebo will work, and their expectations (and not the fake medicine) actually cause them to get better.

This explanation is supported by the fact that when you make placebos more elaborate, and convince people that they should be more powerful, they work better—even though, again, they contain no medicine and are only fakes.

In class, we saw that there was scientific evidence to suggest that some popular treatments in science-based medicine (antidepressant drugs, arthroscopic knee surgery), traditional Western medicine (homeopathy), and traditional Chinese medicine (acupuncture) are no better than placebos in treating illness.

This strongly suggests that these treatments are really placebos—that they contain no medicine, and are simply elaborate fakes. People do get better after undergoing these treatments, but it is not the treatment that makes them get better—it is the placebo effect!

Homework #6

I suspect that you, or someone you know, has used one of these treatments (antidepressants, homeopathy, acupuncture—maybe even arthroscopic knee surgery).

There are lots of other treatments that are like this—some studies have shown that nicotine patches are no better than placebos for helping pregnant mothers quit smoking, and that the spine surgery called “vertebroplasty” is no better than a placebo for painful spinal fractures.

I want you to tell me how you feel about this, in a short (1 page or less) essay. Essays will not be graded on length, so don't write more than you need to.

Identify a treatment that means something to you. It can mean something to you because it has helped you or someone you know, or because you know people who perform the treatment, or because it is culturally important to you, or because your parents taught you that it was good.

Imagine that science shows that this treatment is no better than a placebo, and suggests that the treatment has no medicine in it, is fake, and only works because people believe it does—it's only the placebo effect. Imagine that the science is really good and not flawed or biased or poorly conducted.

If you think it would still be reasonable for people to continue this treatment, explain why you think it's still reasonable to continue it. If you think we should listen to what the science tells us, explain why you think we should do that.

You can argue that the scientific method, and randomized, controlled trials are not an appropriate test of the treatment. You can argue that even if the treatment is a placebo, it's still worth doing. You can argue that science is our best way of knowing things. You can argue anything you like.

What I really want you to tell me is what you believe. What is your personal reaction to these claims. If you believe in traditional Chinese medicine, for example, what would you say if science told you that traditional Chinese medicine does not work, and that any positive benefits people have gotten from it are from the placebo effect? Would you change your mind? Would you say that science doesn't know everything? I really want to know.

IMPORTANT: I am not saying that all Chinese medicine is placebo medicine. I don't want to argue about medicine: that's what you do in medical school, not in critical thinking class. This is why I just want you to imagine that some treatment is a placebo. You don't have to believe that it actually is. I'm interested to know how you personally respond to scientific evidence like this. Do you believe what science tells you—and if you don't believe science, why not?

Due 29 October, before class.

Rubric

Student identifies a medical treatment that is important to him/ her. 1 mark

Student imagines that science shows this treatment is a placebo, and student explains how they feel about this: how they would react, what they would do, whether they would change their mind, etc. 2 marks

Student explains their reaction: if you change your mind, why? If you ignore the science, why? 2 marks

Essay is clearly written. 1 mark