

[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. Choose one of the following two topics, and write a short 4-to-12 sentence essay, describing your own personal opinion.

## Topic 1

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 choose topic #1, defend your treatment. Explain why you think it's still reasonable to undergo that treatment. 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 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 I told you that traditional Chinese medicine does not work, and that any positive benefits people have gotten from it are from the placebo effect?

The goal here is not to make you agree with me—you can disagree all you want. The goal is to get you to think about why you disagree.

## Topic 2

Maybe you're very science-oriented and you would never accept a treatment that was no better than a placebo and thus likely not to have any medicinal value—to just be fake. So maybe you can't answer topic #1.

If you choose topic #2, I want you to imagine what someone would say in topic #1. How do people defend themselves against the claim that their treatments are no better than placebos? There are claims like “It's OK if it's just a placebo”:

[http://www.religiondispatches.org/archive/culture/3806/what%E2%80%99s\\_the\\_problem\\_with\\_a\\_good\\_placebo](http://www.religiondispatches.org/archive/culture/3806/what%E2%80%99s_the_problem_with_a_good_placebo)

And there are claims like “Science can't study/ explain/ understand this treatment”:

<http://nationalcenterforhomeopathy.org/content/homeopathy-0>

Pick an argument that someone might give on behalf of a treatment that science said was just a placebo. How would you respond to that argument?

There are lots of fancy arguments, and you could just copy them from the internet. But I want to know what *you* would say. What is wrong, in your opinion, with these arguments? Write a 4-12 sentence essay on this question.

## Help

Please feel free to email me with any questions you have about the assignment, or if you want comments on your arguments or essays before you turn them in. I will try my hardest to reply before they are due (if you give me a reasonable amount of time).