

Lecture 20: The nature and treatment of mental illness

The Abstract: Today I want to talk about some of the causes of mental illness and some of the ways that we might treat mental illness. First, we will continue with schizophrenia and discuss its probable genetic roots. Then we will switch to depression and to the question of treatment. What do anti-depressants do? How well do they work? What, if any, is the role for psychotherapy? We will also consider obsessive-compulsive disorder because it is a case where we can see how treating the mind can cure the brain and vice versa.

Lecture Notes

What are the causes of mental illness? Back to schizophrenia

Is there evidence for a genetic component?

Concordance rates in twins (remember IQ?)

MZ twins ... concordance about 50%
DZ twins ... concordance about 15%
DZ who think they are MZ < 50%

Is there evidence for environmental contributions?

The mind like the body can be "sick" or abnormal in a number of ways.

Example 4: Depression

Three invented patients

Sarah has had a bad day and she is depressed. She bombed an exam. Her boyfriend just announced that he is leaving her because he is in love with her best friend, and it is raining.

Should we give her medication?
NO WAY 1 2 3 4 5 6 7 8 9 10 SURE

Sam is depressed. There is no particular reason for this. It just happens to Sam. He oscillates between manic days when he is so up that it hard to concentrate on anything and depressed days when he is, well, depressed. Lately, these cycles of mania and depression have been getting faster.

Should we give him medication?
NO WAY 1 2 3 4 5 6 7 8 9 10 SURE

LAST PATIENT ON NEXT PAGE

Emma is not particularly depressed. She is what we would call dysphoric (opposite of euphoric). She just doesn't seem to be able to enjoy herself. Things are just kind of flat. This isn't new. This is pretty much the way she has always been.

VOTE: If we assume that it would change matters, should we give her medication?

NO WAY 1 2 3 4 5 6 7 8 9 10 SURE

What are the important differences between these cases?

Depression is not one thing and that is certainly true.

Unipolar vs bipolar

If time (maybe) typical vs atypical depression

Do anti-depressants work?

Maybe

Why don't they work right away? Here is one interesting thought

Jacobs, B. L., Praag, H., & Gage, F. H. (2000). Adult brain neurogenesis and psychiatry: a novel theory of depression. *Mol Psychiatry*, 5(3), 262-269.

Drugs are slow because they promote neurogenesis....ma

Does psychotherapy work?

Maybe

The mind is what the brain does: A specific example

Baxter, Lewis R. (1992) Caudate glucose metabolic rate changes with both drug and behavior therapy for obsessive-compulsive disorder. *Archives of General Psychiatry* 49(9) 681-689

Example 5 – Obsessive-compulsive disorder

Does Prozac work?

Does behavior therapy work?

What happens when drugs make us better than we ever were?