

Lecture 20: The nature and treatment of mental illness

The Abstract: Ideology has not served us well in the realm of mental illness. Efforts to squeeze all mental illness into a single framework - from Freudian to Behaviorist to Neurochemical - do not work. There are lots of ways for the brain/mind to run off the rails and each needs to be examined for its own particular combination of causes and handled with its own particular mix of treatments. Some "disorders" don't seem to be mental illnesses at all (Example 1: Suicide terrorism). Some probably have a "brain disease" at root (Ex 2 - Schizophrenia). Others are predominantly environmental in cause (Ex. 3 - Posttraumatic stress disorder). Almost no mental disorder is purely one or the other (Ex 4 - depression) and treatment can often be approached via the "brain" or the "mind" (Ex 5 - Obsessive-compulsive disorder).

Lecture Notes

Three misguided theories:

- a. that all psychiatric problems are psychodynamic in nature,
- b. That all psychiatric problems are the product of a disordered brain
- c. That all psychiatric problems are essentially character flaws

These come with ideas about treatment, too.

Example 1: Are suicide terrorists insane?

The Genesis of Suicide Terrorism. Scott Atran, Science. Mar 7, 2003 v299, pp1534-1539

A bit of history

How does this come to pass? NOTE: As ever to explain is not to condone

Do they show evidence of mental illness?

What other theories might we have

Theory 1: Personality attributes

The "fundamental attribution error" revisited

Theory 2: Deprivation theories

Theory 3: Sociopathology

Are they like members of violent racist groups?

A word about foot in the door and door in the face effects

Theory 4: fictive kin

Example 2: Schizophrenia

= Split mind (but NOT like multiple personality disorder)

A division between intellectual and affective parts of personality.

What did Freud say?

What did later Freudians say?

the schizophrenogenic parent (mother) & the double bind

Drugs emptied the hospitals of schizo. patients were drugs like
e.g. Chlorpromazine (=thorazine) blocks dopamine receptors

Some interesting history: Hobson, J. A., & Leonard, J. A. (2001). *Out of its mind: Psychiatry in crisis*. Cambridge, MA: Perseus.

Not simply a brain awash in dopamine.

Reducing function of all dopamine receptors can have nasty side effects
(Parkinsons disease is the result of too little dopamine)

Thinking about the roots of mental illness.

In 1900, about half of the patients in mental hospitals had a disorder called *dementia paralytica*

This is no longer true. What happened?

Example 3: Shell shock -> post-traumatic stress disorder

A mental illness with a clear psychological cause

A bit more history: Ever heard of "Dragnetomania"?

Does this still happen?

Let's collect some data

Jim wears an aluminum foil hat on his head at all time. This, he says, is to keep the microwaves out of his brain. He believes that doctors in a big Boston hospital are controlling his brain as part of a conspiracy to take over the country. He says that he hears their voices broadcast directly into his head.

How weird is Jim?

Fine 1 2 3 4 5 6 7 8 9 10 Very Weird

Sam is a shy, almost withdrawn man. His major passion is collecting women's undergarments. He doesn't DO anything with them. He just arranges them by age and country of origin. He lives alone and does not socialize much.

How weird is Sam?

Fine 1 2 3 4 5 6 7 8 9 10 Very Weird

Jack believes that the US is controlled by a small group of capitalists. He advocates a workers revolution. He gives long speeches on the subject to anyone who will listen in Harvard Square. He also "publishes" a photocopied "newspaper" devoted to his views.

How weird is Jack?

Fine 1 2 3 4 5 6 7 8 9 10 Very Weird

The Points:

- 1) The border between the odd and the abnormal is not sharp.
- 2) Type treatment is not perfectly correlated with cause of disease.

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

Some 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

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?