

An Introduction to Psychiatric Classification

- ▶ In the beginning different theories of mental disorder proliferated...
- ▶ For each theoretical orientation there was a different classification of mental disorders...
- ▶ The classification proposed by one theoretical orientation was shunned by the others
- ▶ There was a need for a common system of classification so clinicians could agree what condition a patient had and researchers could study people with the same kind of disorder (Inter-Rater reliability)

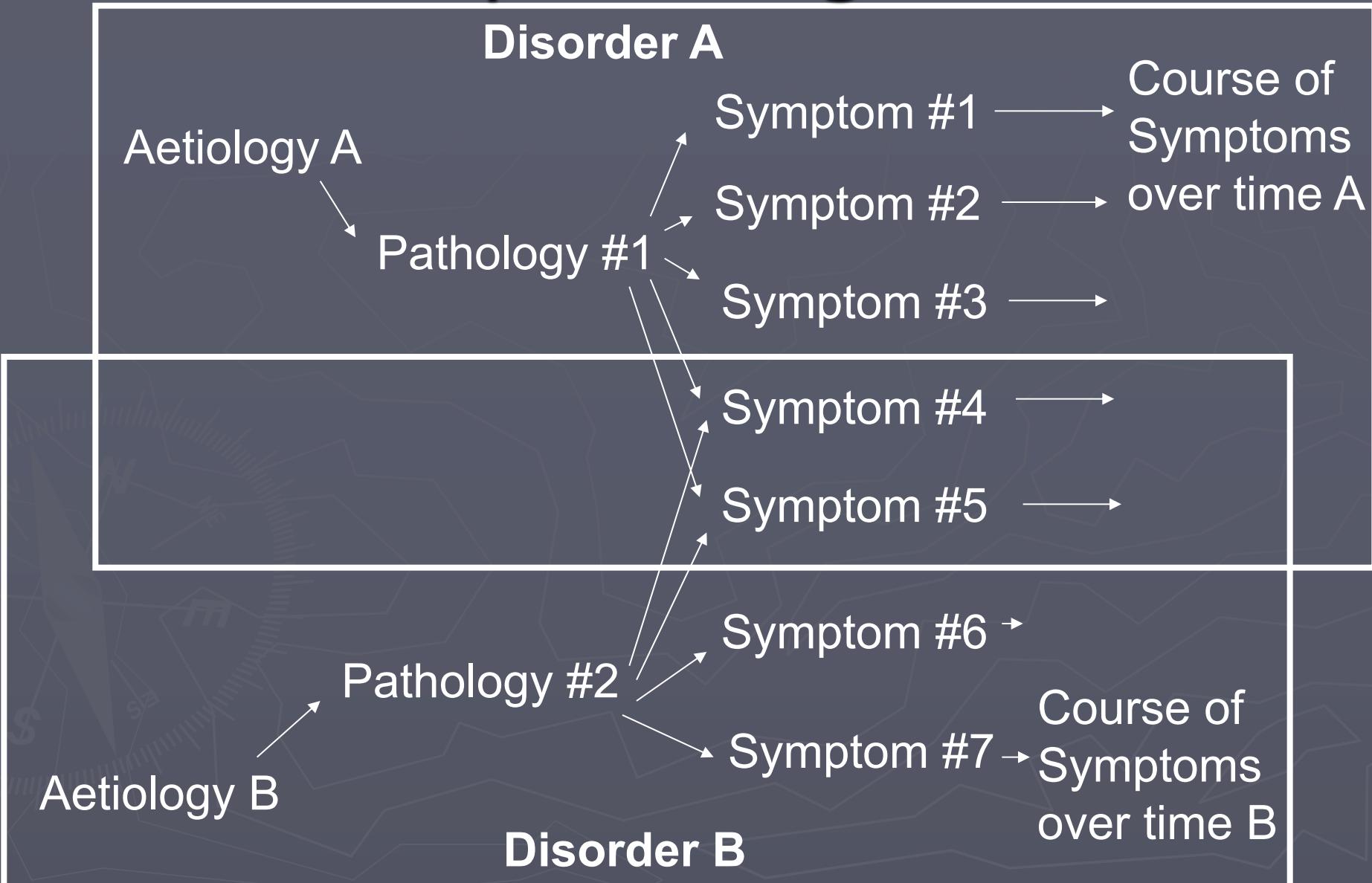
The Rise of the DSM and ICD

- ▶ The DSM and ICD are two different systems of classification
- ▶ They are designed so that you can translate the diagnostic categories and codes from one manual into the diagnostic categories and codes in the other
- ▶ Their similarity reflects 'truth by agreement' rather than independent convergence
- ▶ The DSM is mostly used in the USA (as it is put out by the American Psychiatric Association) and the ICD is mostly used in Europe (as it is put out by the World Health Organisation). But: The DSM is taking over the world
- ▶ There have been numerous editions of each and the current editions are the ICD-10 and the DSM-IV-TR (where TR is Text Revision)
- ▶ The DSM V is estimated to come out in 2010 or 2011

The DSM and ICD

- ▶ Both share an approach that is regarded as Neo-Kraepelinian
- ▶ Kraepelin thought that instead of classifying kinds of disorders on the basis of theorising we should classify on the basis of our observations
- ▶ He studied patient data and tried to plot aetiology, symptom, and course
- ▶ His big idea was that there would be a distinct number of symptom clusters that had a distinct aetiology and course

Kraepelin's Big Idea



Kraeplin

- ▶ His idea was that behavioural symptom clusters would share the same underlying pathology and the same underlying aetiology
- ▶ So if we classified on the basis of aetiology or we classified on the basis of pathology or we classify on the basis of behavioural symptom clusters we would end up with the same system of classification
- ▶ If we think that some or all behavioural symptom clusters are multiply realized then this assumption would be false, however.

The Virtues of the Neo-Kraepelinean Approach

- ▶ Hempel recommended that psychiatric classification should focus on observable behavioural symptoms (operationalized) in order to get some inter-rater reliability
- ▶ The idea was to start with the first stage of science: Describing observable features (behavioural symptoms) so that we could discover what observable features were to be found clustered together in nature (syndromes with unity)
- ▶ This is similar to chemistry and biology
- ▶ This was a way of getting around the divergence of theoretical orientation that was threatening to undermine psychiatry as a unified discipline

Problems with the Neo-Kraepelinian Approach

- ▶ Most of the DSM and ICD categories haven't been validated (which is to say that there isn't any evidence that the categories really describe symptom clusters or 'syndromes with unity')
- ▶ Inter-rater reliability is poor
- ▶ It looks like genetic kinds, neurological kinds, cognitive kinds, behavioural kinds, and social kinds might come apart given multiple realizability (of both causal mechanisms and constitution)
- ▶ As such, how classification should proceed is going to depend on what classification is for

The Purpose of the DSM

- ▶ The DSM states three main aims:
 - 1) To provide a system of classification that is useful to clinician's
 - 2) To provide a system of classification that is useful to researchers
 - 3) To provide a system of classification that is useful to epidemiologists
(main purpose of the ICD)
- ▶ This isn't a stated aim (the DSM distances itself from these issues) but:
 - Getting a DSM / ICD code is required for publicly funded and / or health insurance funded treatment
 - Getting a DSM / ICD code is required (though not sufficient) for the insanity defence. Though insanity is to be decided by jurists and not by psychiatrists, psychiatrists do give expert testimony as to mental state
 - A disorder having a DSM / ICD code prioritises it for health funding

The Purposes:

- ▶ We want to compile statistics on prevalence so we know where to spend funding on preventing and treating health problems. As such the statistical aim wouldn't seem to be distinct from the other aims
- ▶ Clinicians need to be able to identify what kind of disorder a person has so they know how to treat them
- ▶ Researchers need to be able to identify what kind of disorder a person has so they can study the disorder and see what causes it and what interventions are able to prevent / manage / cure the disorder
- ▶ If behavioural kinds aren't reflective of neurological or genetic kinds then we might end up with different systems of classification that conflict
- ▶ While there has been some suggestion that psychiatric kinds should be typed according to underlying causal mechanisms this might provide a system that is unusable for clinicians in practice given current (and perhaps future) technologies

Thesis Plan

- ▶ Introduction to Psychiatric Classification and the Purposes of Psychiatric Classification
- ▶ 1) Dysfunction as an Ontological Thesis
- ▶ 2) Dysfunction as a Methodological Thesis
- ▶ 3) The Mental (Psychiatric) vs Somatic (e.g., Neurological) Distinction
- ▶ 4) Kinds of Mental Disorders
- ▶ 5) Modelling Mental Disorders

Introduction to Psychiatric Classification

- ▶ Introductory chapter will identify and situate the issues that I will be concerned with
- ▶ Provide the desiderata for a good psychiatric classification system by way of examples of supposedly bad ones
- ▶ The idea is that we want to develop the current classification system in ways that are useful GIVEN THE PURPOSES OF CLASSIFICATION
- ▶ Along the way I hope to clarify some of the disputes and hopefully integrate some positions that have been regarded as conflicting (e.g., the anti-psychiatry focus on social causal mechanisms and the psychiatry focus on neurological causal mechanisms)

1) Dysfunction as an Ontological Thesis

- ▶ The most widely accepted view of mental disorder (and bio-medical disorder more generally) is the two-stage view
- ▶ On the two stage view we can distinguish matters of fact from matters of value and both are individually necessary and jointly sufficient for mental disorder
- ▶ I want to maintain that no matter how much we focus on the supposedly objective non-evaluative aspect of disorder values just keep on recurring
- ▶ As such, **the dysfunction assumption fails to provide a non-evaluative foundation for psychiatry**
- ▶ **We would be better to appreciate the evaluative nature of 'disorder' such that we can be explicit about values so as to hold them up for critique**

2) Dysfunction as a Methodological Thesis

- ▶ Even if we grant that the objective grounding fails we still might want to retain the malfunction assumption as a methodology (E.g., Murphy's view)
- ▶ The idea is to develop models of normal human functioning and then explain mental disorders as breakdowns in the model
- ▶ Not all scientists adhere to the methodological assumption, however. There are people trying to model the adaptive features of disorder (such as the potential benefits conferred by the genetic basis or the potential benefits conferred by low level symptoms)
- ▶ **I would like to maintain that a model that makes use of the 'malfunction' assumption can be translated into an equivalent model that doesn't make use of the 'malfunction' assumption**
- ▶ **We can do this by describing causal processes without attaching the label 'malfunction' to certain causal processes**
- ▶ **And it is important to note that dysfunction can't be DISCOVERED by models that ASSUME it**

3) Mental (Psychiatric) vs Somatic (e.g., Neurological)

- ▶ There are a variety of different ways that theorists have attempted to define 'mental'
 - Subjectivity
 - Qualia
 - Intentionality
- ▶ There are a variety of different ways that theorists have attempted to define 'mental disorder'
 - Mental causes for behavioural symptoms
 - Mental symptoms
 - One or the other
 - Both

3) Mental (Psychiatric) vs Somatic (e.g., Neurological)

- ▶ There are arbitrary field divisions in medicine (provide example)
- ▶ Unclear why we should really be concerned about this
- ▶ My Diagnosis: The present concern reflects politics more than anything else
 - Neurology
 - Psychiatry
 - Clinical Psychology
- ▶ **Current political conflict between arbitrary field divisions is an impediment to scientific research and it has led to dichotomizing instead of integration (much to the detriment of our figuring out the subject matter)**

4) Kinds of Mental Disorders

- ▶ I think that the project here will involve us firstly attempting to discover what behavioural symptoms are found clustered together in nature ('syndromes with unity')
- ▶ While Murphy has suggested that we change the classification system so it reflects kinds of causal mechanisms I don't think that the science is advanced enough for that at present
- ▶ Since the majority of DSM categories haven't been validated (haven't been found to be syndromes with unity) we are still struggling with that first stage
- ▶ It might turn out that there aren't syndromes with unity. In that case we would be better off changing the classification system to a symptom based approach (used in neuro-psychology) where we focus on explaining and treating individual symptoms rather than clusters of symptoms
- ▶ Once we have our explanandum (either a syndrome with unity or a particular symptom) then we want to know what causal mechanisms are involved in producing and maintaining the symptoms
- ▶ Then the search for homeostatic mechanisms
 - Genetic
 - Neurological
 - Cognitive
 - Social

5) Modelling Mental Disorder

- ▶ I want to plug in a view of causation that is roughly along the lines of the interventionist account that has been offered by Woodward (argued for in Griffiths, Murphy, Cravers etc)
- ▶ This is because it seems to offer a good account of the kinds of reasoning processes that are involved in scientists making what are regarded as well founded causal claims by the scientific community
- ▶ Much research into psychiatric disorders involves attempts to model causal mechanisms
- ▶ Finding out about interventionist causal mechanisms provides us with information as to where we can intervene on the system so as to prevent, mask, or cure the behavioural symptoms that were problematic
- ▶ This provides a way of uniting the clinical and research projects. A good taxonomy should allow us to identify, study, and treat people of the same kind
- ▶ While Murphy maintains that we could have different classifications for different purposes I think that this problem can be solved by seeing how research and treatment are complimentary enterprises that feed into each other
- ▶ He didn't really consider medication development as something that drives taxonomy but it is something that has driven taxonomy. While medication development doesn't provide fully grounded evidence for causal mechanisms it does provide some evidence, however
- ▶ This gives us an indication that the science and the application are integrated and have a reciprocal relationship
- ▶ This mirrors the idea that I started with where the ethical concerns are integrated and are a necessary part of fixing the subject matter

Malfunction and Harm: Why the Distinction Doesn't Work to Ground Psychiatry

(Or... Why you can't keep the
values out)

The Problem

- ▶ It isn't hard to find abuses of psychiatry
 - Political dissenters in Russia were diagnosed with 'Sluggish Schizophrenia' and involuntarily confined and medicated
 - Homosexuality was regarded as a mental disorder until the 60's
 - 'Draeptomania' (while never making it into the DSM or ICD) was suggested as a category that applied to slaves who desired to escape their masters
- ▶ So... What makes it the case that a condition is a disorder and not just an abuse of psychiatry?

The Critique of Psychiatry

- ▶ Anti-psychiatrists (who most often are psychiatrists) maintain that psychiatry shouldn't be a branch of medicine
- ▶ They maintain that there is no more to mental disorder than social and / or moral norm violation
- ▶ They maintain that we need to change our social practices rather than attempting to change the individual

The Defence of Psychiatry

- ▶ In response to the anti-psychiatry critique theorists have attempted to justify psychiatry's status as a branch of medicine by defining 'bio-medical disorder' in a way that
 - 1) Equally applies to medical and psychiatric disorder
 - 2) Provides an objective, scientific foundation for when people are disordered compared with non-disordered

The Main Defence

- ▶ The most popular defence of psychiatry (the most popular definition of bio-medical disorder is the Two-Stage view)
- ▶ Two individually necessary and jointly sufficient conditions for mental disorder
 - Harm
 - Malfunction

Harm

- ▶ Not much has been written on the harm criterion
- ▶ 'Harm' is thought to be a suitable stand-in for the normative aspect of disorder (whatever that might be)
- ▶ Harm is thought to be normative for the following reasons
 - Whether someone is harmed or not depends on their social environment
 - The harm seems to justify our helping. Someone who is harmed would be better off if they weren't harmed

Dysfunction

- ▶ Dysfunction is supposed to be objective (to be discovered by geneticists and neurobiologists)
- ▶ We might want to add cognitive psychologists and sociologists to the list but this would require extension of the medical model (which focuses on somatic disorder)
- ▶ There are meant to be facts about dysfunction that are distinct from our values and distinct from our beliefs.

My thesis:

- ▶ The dysfunction criterion is insufficient to ground psychiatry (or medicine more generally) in non-normative facts
- ▶ The 'line drawing problem' is fatal
- ▶ Whether an individual has a mental disorder (or physical disorder or not) has more to do with our values than with objective advances in science

Case Study:

- ▶ Mr Smith is a 70-year old man being admitted to the hospital with congestive heart failure (CHF). He had a heart attack a few years ago, followed by a procedure that reopened a blocked coronary artery. He did well since then, and tests showed that his “ejection fraction”, the amount of blood his heart pushes out in each contraction, remained around 50%, down from the average of 60% but still in the normal range

Case Study

- ▶ Over the last few weeks, he has developed increasing shortness of breath, and tests show that his ejection fraction has dropped to 20%. This reduction in his heart's pumping ability is causing fluid to leak out of the veins in his lungs, causing his trouble breathing. Possible causes of his heart failure range from another heart attack to valvular problems or other issues.

Dysfunctions

► Four main accounts of dysfunction

- Aristotelian Teleological
- Statistical
- Evolutionary
- Systemic

► I'm going to focus on the middle two...

Functions

Heart



Taking up Space



Making Noise



Maintaining / Pumping Blood

Function

Failure to Pump Blood



Inadequate for Mr Jones

- ▶ The problem is that 'pumping blood' doesn't seem to be the relevant function for the heart
- ▶ This is because people whose heart doesn't pump blood aren't DISORDERED
- ▶ They are DEAD
- ▶ So we need to clarify the relevant function

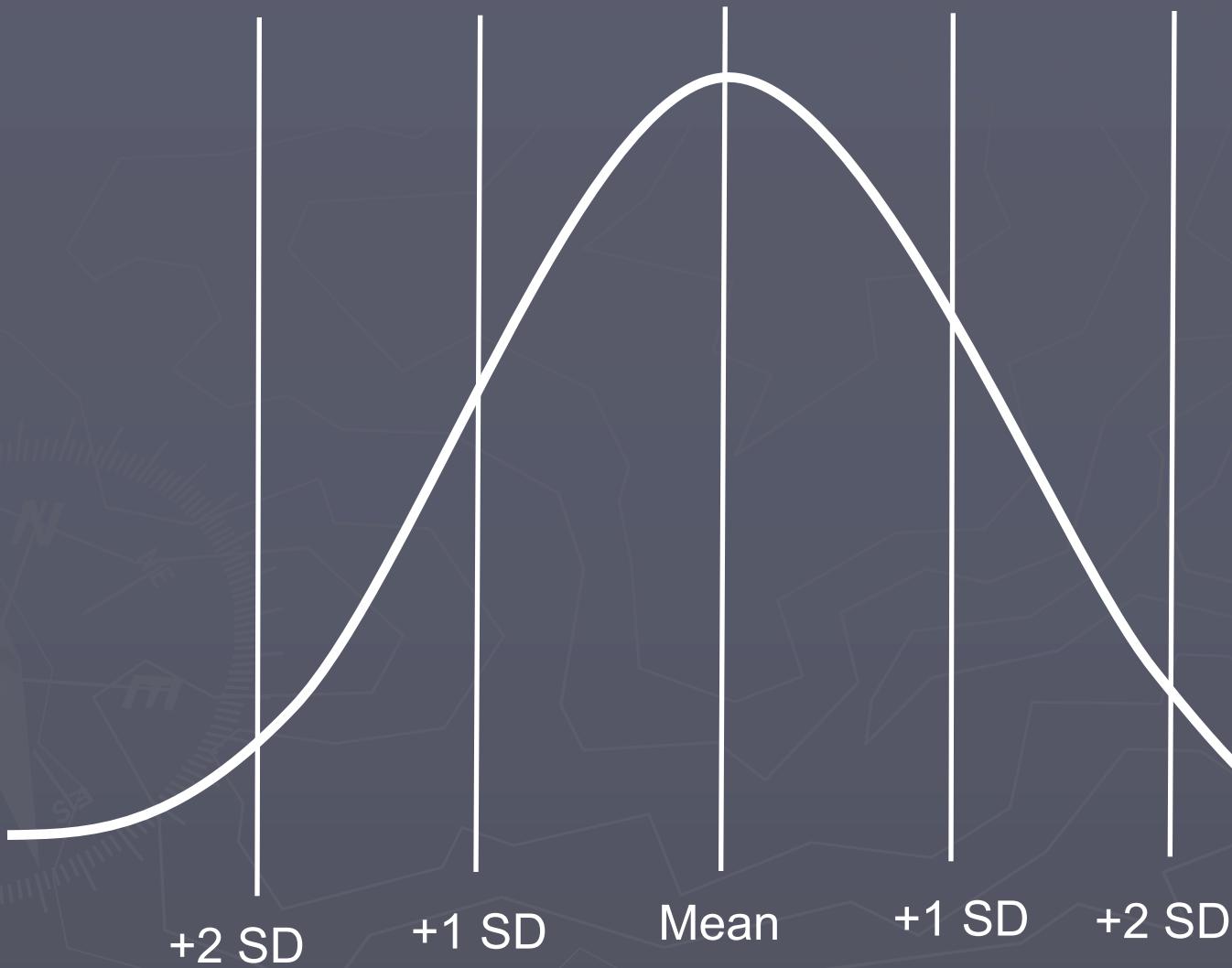
Bio-Statistical Malfunctions

- ▶ Boorse is well known for his bio-statistical account of malfunction
- ▶ 1) The reference class is a natural class of organisms of uniform functional design; specifically, an age group of a sex of a species
- ▶ 2) A normal function of a part or process within members of the reference class is a statistically typical contribution by it to their individual survival and reproduction
- ▶ 3) A disease is a type of internal state which is either an impairment of normal functional ability, i.e., a reduction of one or more functional abilities below typical efficiency, or a limitation on functional ability caused by environmental agents.
- ▶ 4) Health is the absence of disease (Boorse 1997, 7-8)

Boorse's Bio-Statistical Theory

- ▶ According to Boorse we fix functions by looking at the statistically normal effects
- ▶ The thought is that the abnormal effects are dysfunctional

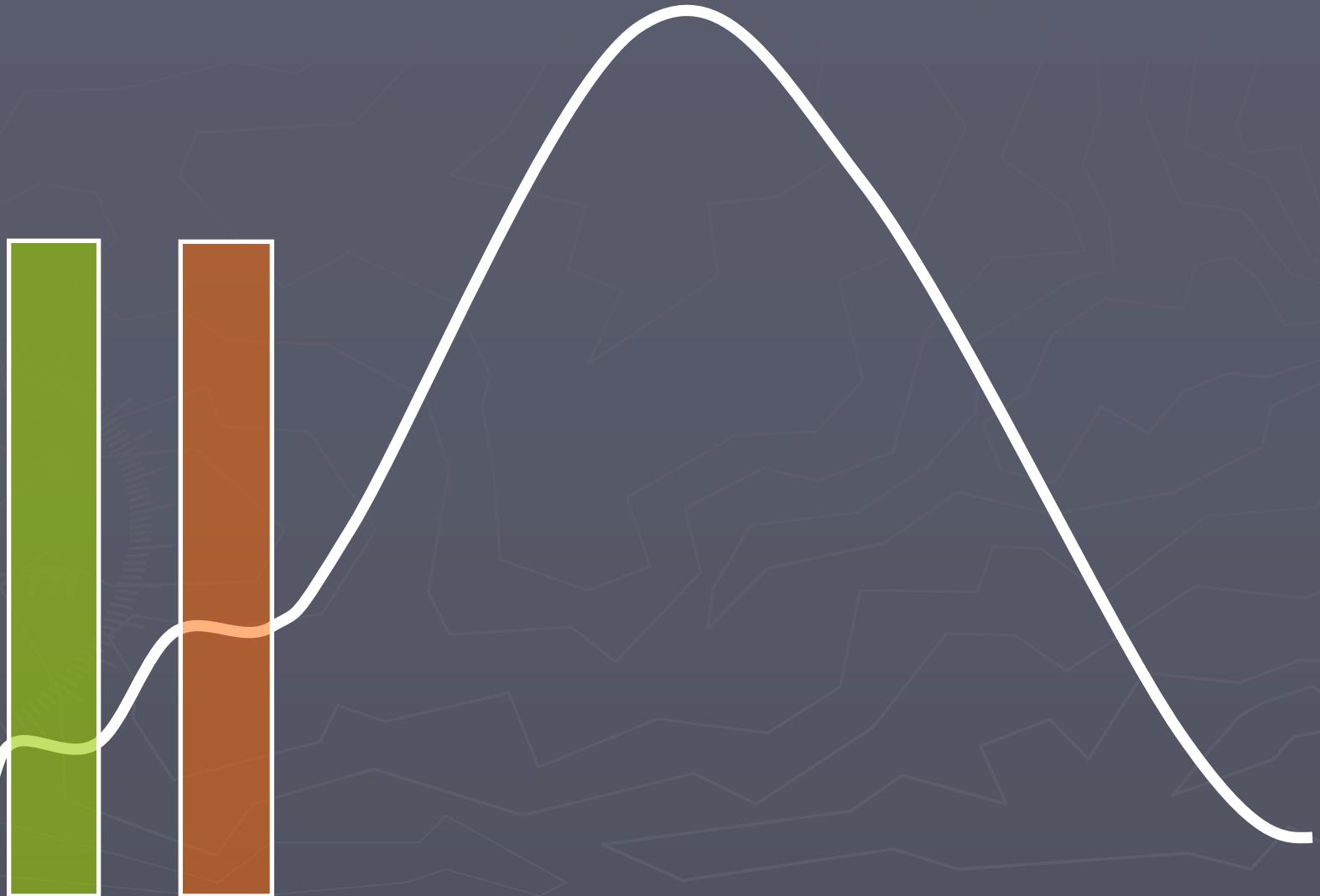
Ejection Function (EF)



Important to Note:

- ▶ This isn't just a problem for normal distributions
- ▶ The distribution could be skewed but we still face the line drawing problem
- ▶ The distribution could be peaked but we still face the line drawing problem
- ▶ There could be peaks and valleys in the curve of best fit but we still face the line drawing problem

► Even in a distribution like this... We still face the line drawing problem



Evolutionary Functions

- ▶ One might think that evolutionary functions would be able to solve the line drawing problem
- ▶ The basic idea of evolutionary functions is that function of a mechanism is the effects of the mechanism that contributed to survival and reproduction of past tokens of the trait

- ▶ Deciding whether a certain variant is selected against depends on which other forms exist in the population.
- ▶ There is variation
- ▶ Consider the following case (from Schwartz, 2007)

Which are Selected For and Which are Selected Against?

Variant	Expected Reproduction
A	.2
B	.5
C	1
D	2
E	5

Ejection Function (EF)

Variants

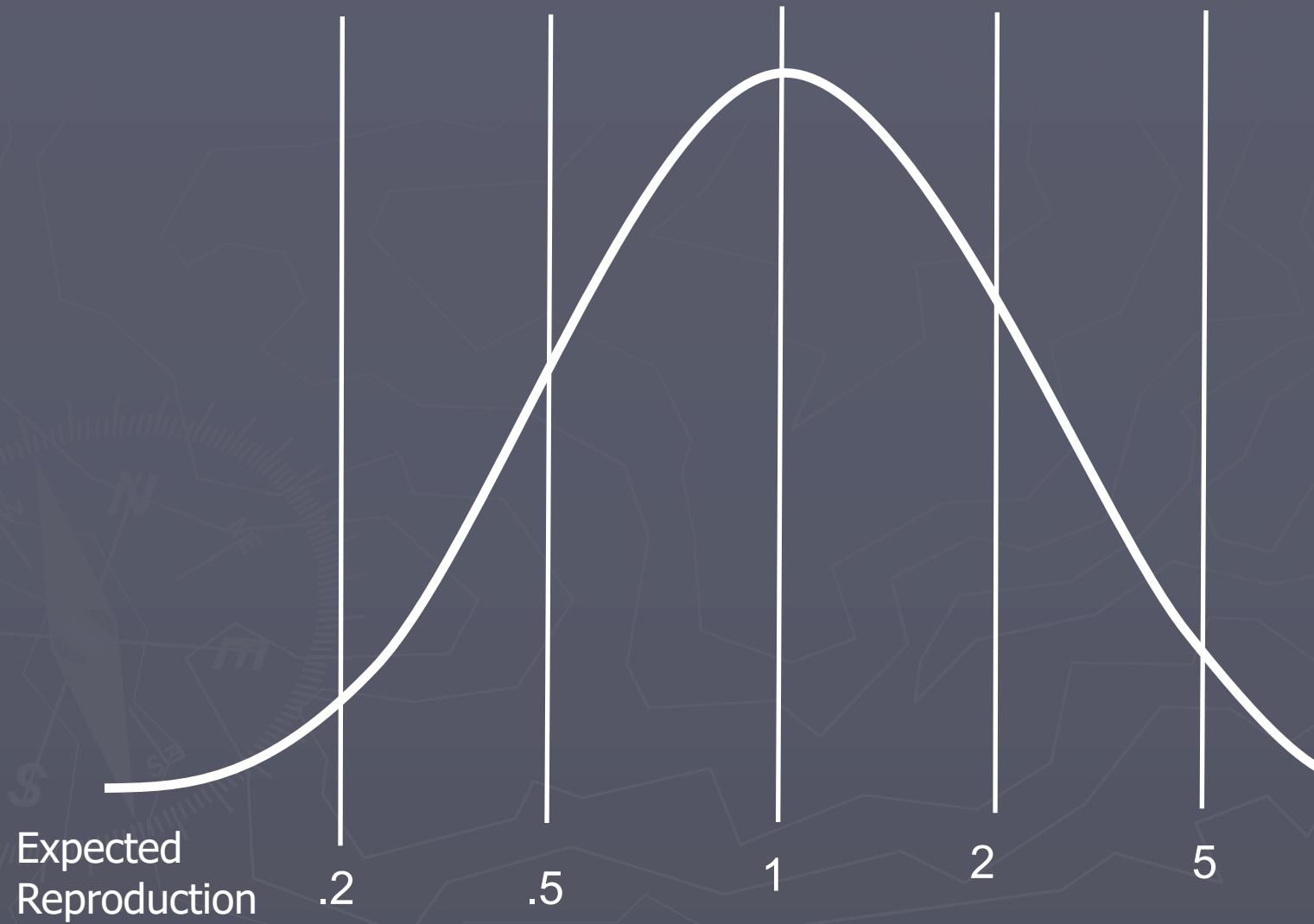
A

B

C

D

E



Schwartz Solution:

- ▶ Schwartz has offered a solution to the line drawing problem where where we draw the line is partly a function of the degree of abnormality (on the statistical notion?) and partly a function of the degree of harm
- ▶ The problem is that harm also faces the line drawing problem. How much harm is enough?

Schwartz 'Frequency and Negative Consequences Approach'

- ▶ 'The problem of common disease and the problem of healthy populations show that there is more variability in the prevalence of dysfunction than the Frequency approach allows. What appears to be needed is an additional factor, and a natural candidate is the effect that a given level of functioning has on the organism.'
- ▶ This method presents no simple rule about where to put the line, but it provides a rule for judgements about consequences, and thus a way to answer the problems facing the frequency approach

