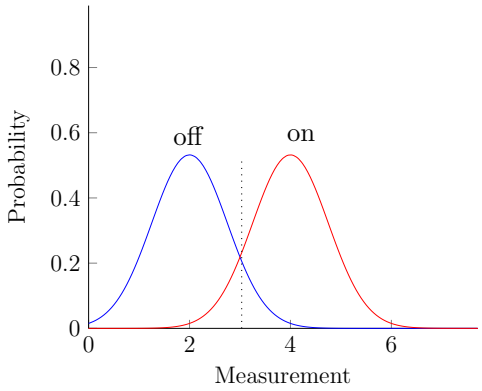
Comments on David Rosenthal's "Mental Qualities Without Consciousness"

(1) David's argument:

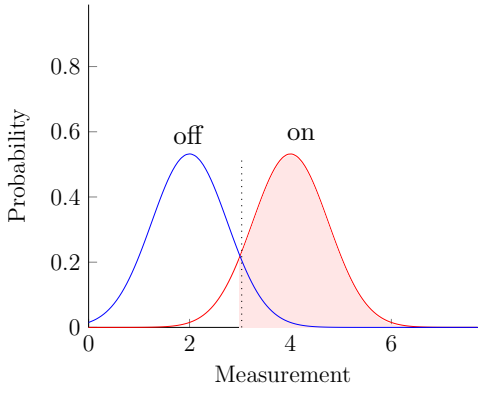
> Consider two consciously discriminable stimuli. They are consciously discriminable because they produce different mental qualities (say: quality$_1$ and quality$_2$). It's definitive of mental qualities that we *always* use the same mental qualities to discriminate the same stimuli. Therefore, if we can *unconsciously* discriminate the relevant stimuli, then we must be using the same mental qualities (again: quality$_1$ and quality$_2$). We can unconsciously discriminate the relevant stimuli. Therefore, mental qualities can be unconscious.

My question: What does he mean by *discriminable*?

(2) Signal Detection Theory.



If the light is on, the probability of a correct decision is the shaded area:



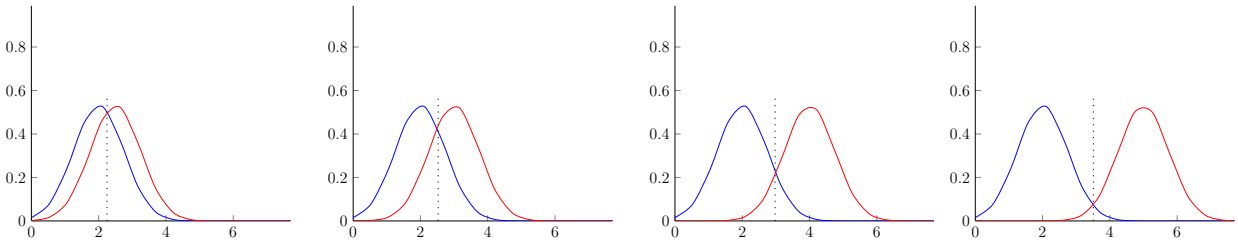
My question: How does Rosenthal's notion of discriminability relate to this model?

(3) report-quality interpretation:

decisions	verbal reports (e.g., "the light is on")
measurements	mental qualities
discriminable	it is sufficiently probable you'll make a correct report

Problems:

1. The same stimulus produces *many* mental qualities.
2. The same mental quality allows us to discriminate *many* stimuli.
3. The decision criterion varies with prior probability, expected utility, personality, etc.
4. The decision criterion is consciously manipulable.
5. Discriminability isn't all-or-nothing. It's gradable.



(4) d′ interpretation

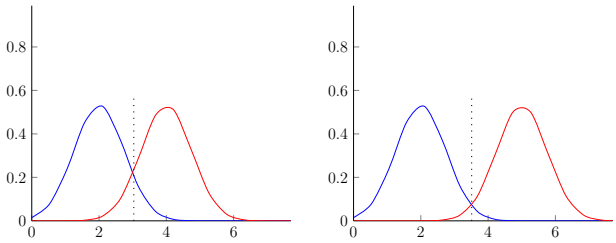
decisions	verbal reports
measurements	mental quality
discriminability	statistical measures between curves (e.g., d′)

Problems:

1. There are many, equally appealing statistical measures
2. These statistical measures don't take into account a perceiver's behavior.
3. Discriminability isn't all-or-nothing. It's gradable.

(**5**) pre-conscious interpretation

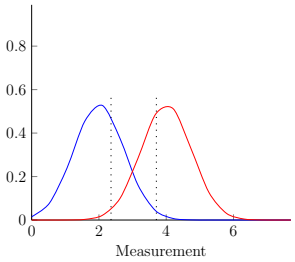
decisions	mental quality
measurements	perceptual states that precede mental qualities
discriminability	probability of that mental quality



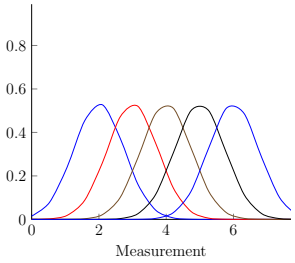
Problem: Your perceptual system could produce too many mental qualities.

(**6**) Why is this the right kind of task?

A 3FC with an "uncertain" option:



A 5FC with five stimuli:



Matching tasks are even more complicated and problematic.