

## General Psychology

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## This Class is All About You

- Your brain
- Your memories
- Your fears
- Your mental disorders
- Your joys
- Your friends (and the stuff they make you do..)
- Your parents
- ...



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## Who Are You?

Unique! (probably want to avoid younique..)

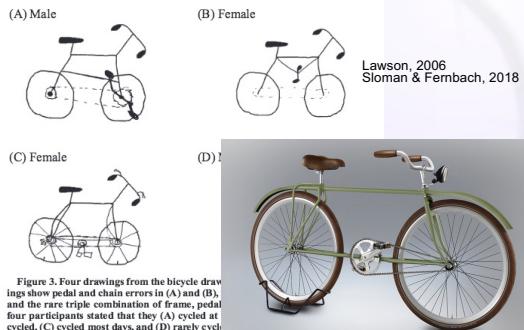
But your brain has a lot in common with others..

So we can make some pretty good guesses..



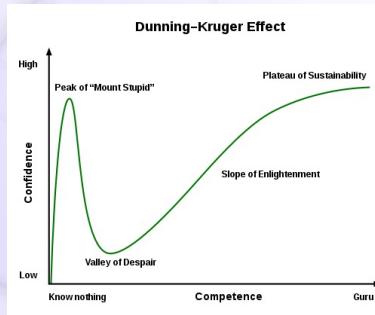
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## You Don't Know Much..



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And you don't know you don't know..  
(anosognosia of everyday life..)



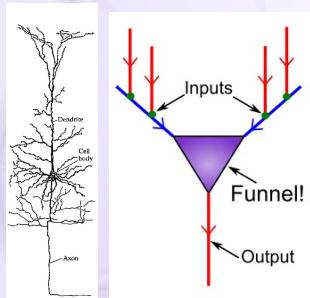
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And it doesn't really matter!!



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## Your Brain is one Big Funnel!



Tons of information slamming into you every millisecond!  
But your brain just **compresses** everything into what you actually need to know!

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## Principle #1: Compression

- Stereotypes
- Tweets
- Soundbites
- Texting
- (more pictures please!)

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## You are Constantly Comparing



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## Constantly Seeking News

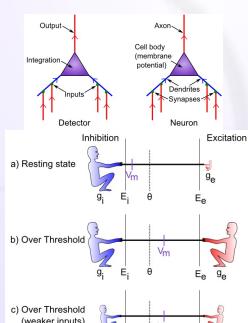


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## Principle #2: Contrast



Everything is always relative in your brain  
Constantly comparing relative to everything  
Including the past (news)



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## You Struggle with Self Control



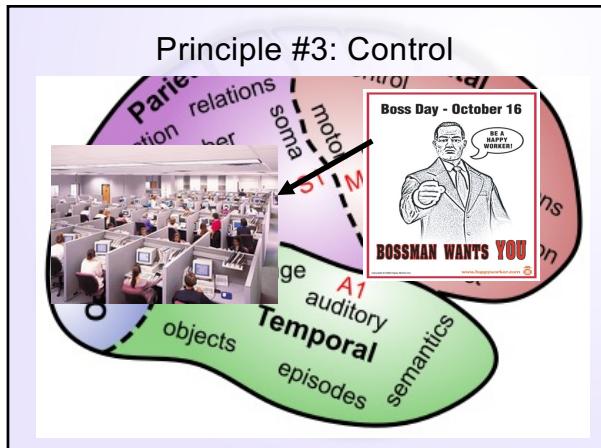
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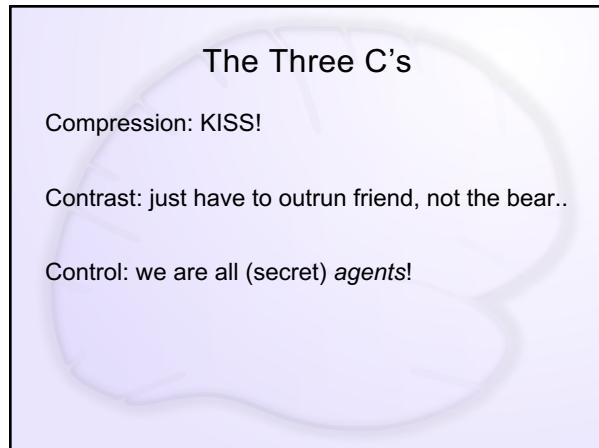
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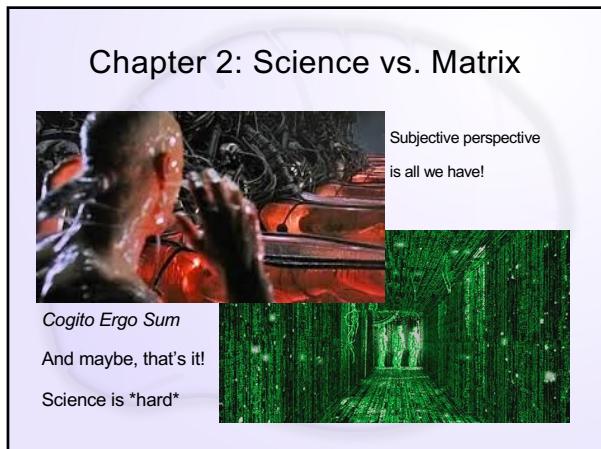
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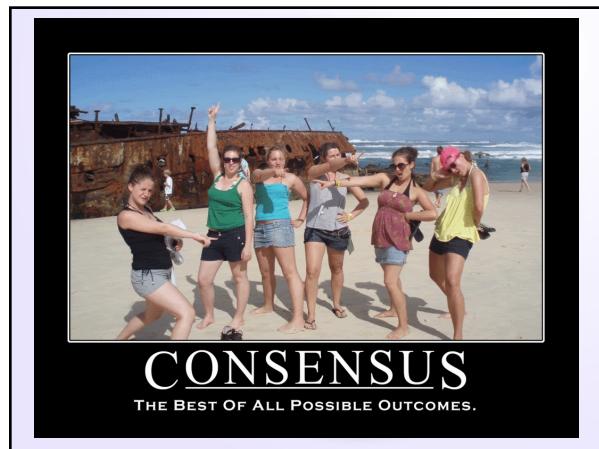
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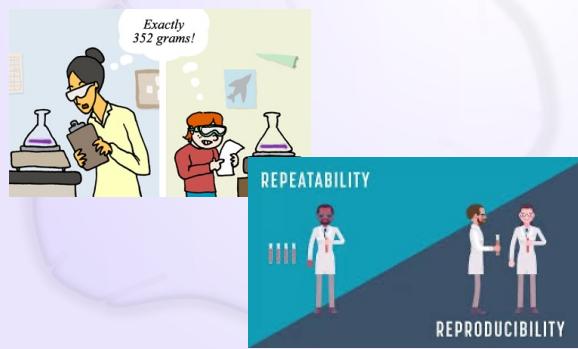


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## Reproducibility = Consensus

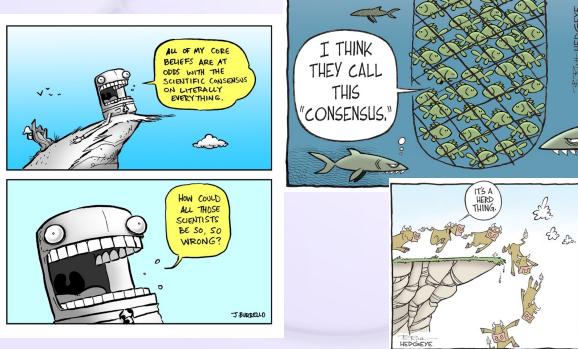


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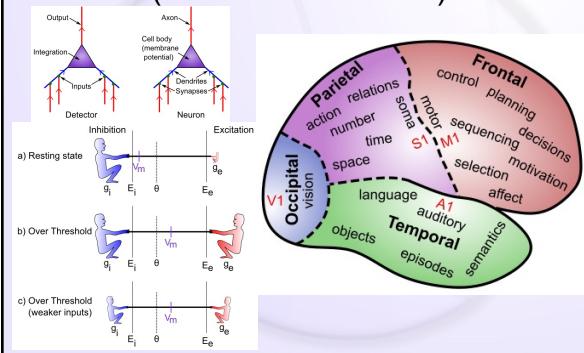
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## Consensus is hard..



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## Chapter 3: Neuroscience (basis of the CCC's)



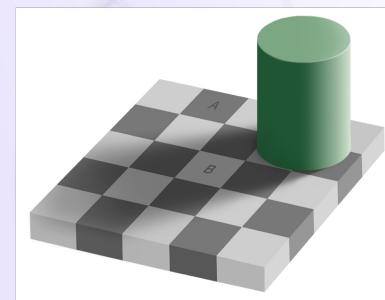
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## Chapter 4: Consciousness, Drugs..



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## Chapter 5: Perception



Notice anything strange?  
No?  
That's the point!  
Btw: A == B!  
We don't see pixels  
We see the world!!!  
Compression, Contrast  
drive most of perception

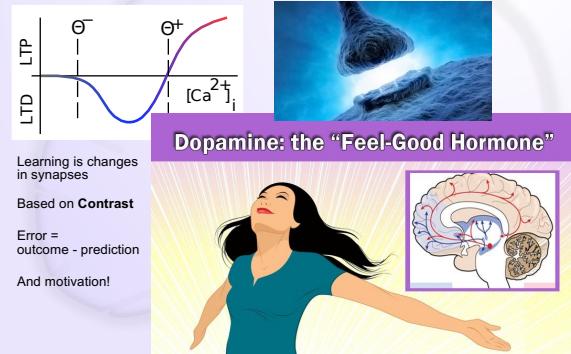
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### Contrast, Compression, Top-down Control



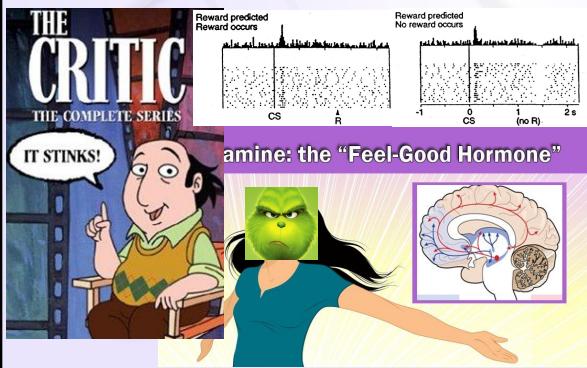
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### Chapter 6: Learning & Motivation



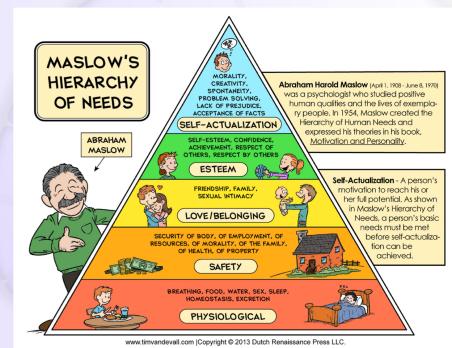
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### Dopamine is a Nasty Critic!



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### The Pyramid of Control!



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### Chapter 7: Memory



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### Chapter 7: Memory



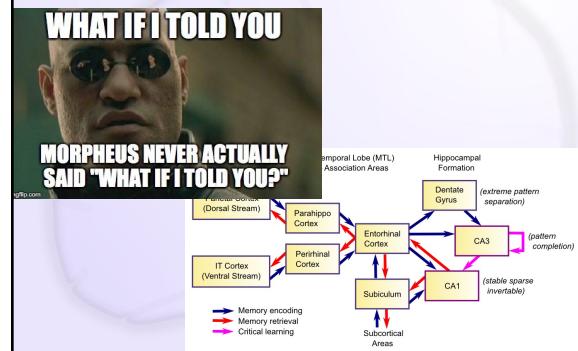
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## Chapter 7: Memory



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## Hippocampus gets Compressed Input



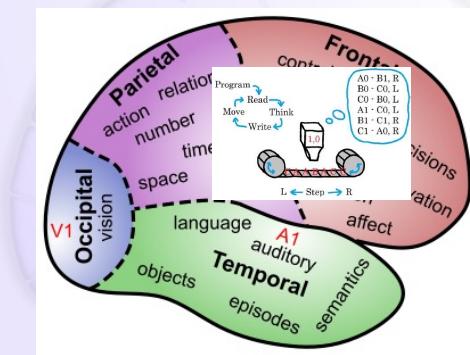
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## Chapter 8: Thinking & Control



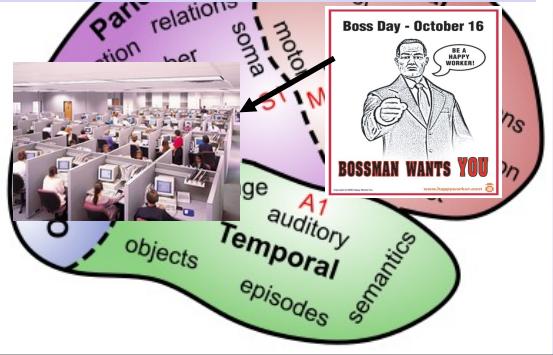
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## Neural CPU = Turing Machine



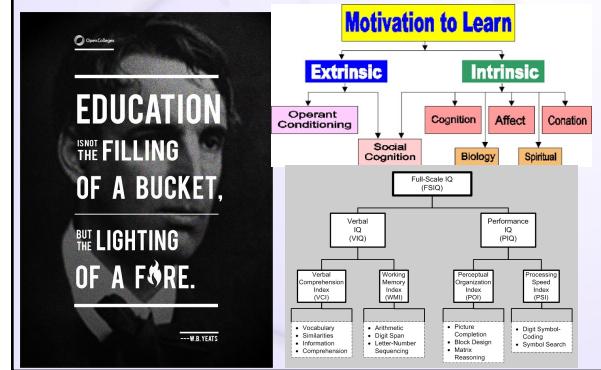
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## PFC = Control, Working Memory



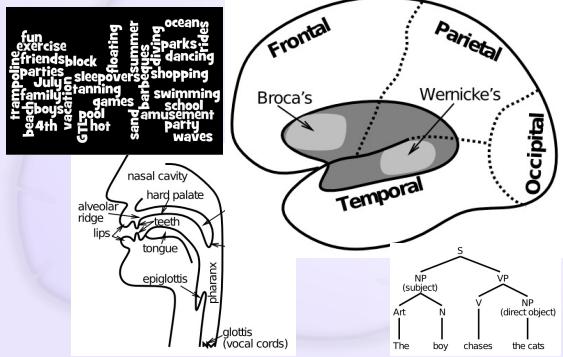
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## Motivation is the Driver..



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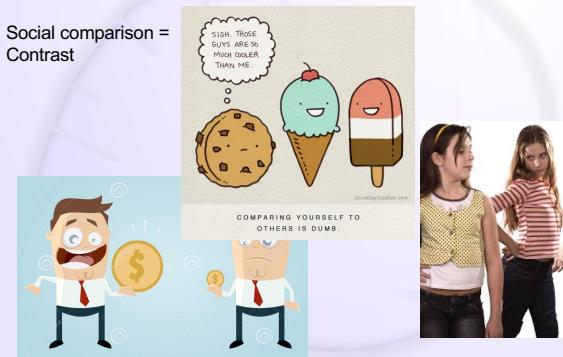
## Chapter 9: Language



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## Chapter 10: Social & Personality

Social comparison = Contrast



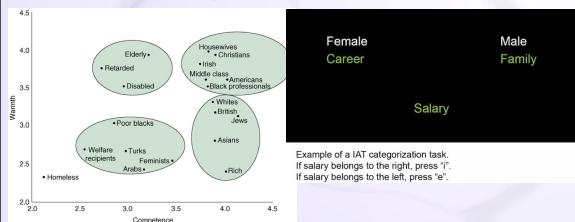
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## You struggle with Self Control



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## Stereotypes = Compression



Everyone has internalized prevalent stereotypes, even negative ones about their own groups!

Two core dimensions: Competence (Dominance) & Warmth (Agreeableness)

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## OCEAN of Personality

Big 5 Trait	Example Behavior for LOW Scorers	Example Behavior for HIGH Scores
<b>Openness</b>	Prefers not to be exposed to alternative moral systems; narrow interests; inartistic; not analytical; down-to-earth	Enjoys seeing people with new types of haircuts and body piercing; curious; imaginative; untraditional
<b>Conscientiousness</b>	Prefers spur-of-the-moment action to planning; unreliable; hedonistic; careless; lax	Never late for a date; organized; hardworking; neat; persevering; punctual; self-disciplined
<b>Extraversion</b>	Prefering a quiet evening reading to a loud party; sober; aloof; unenthusiastic	Being the life of the party; active; optimistic; fun-loving; affectionate
<b>Agreeableness</b>	Quickly and confidently asserts own rights; irritable; manipulative; uncooperative; rude	Agrees with others about political opinions; good-natured; forgiving; gullible; helpful; forgiving
<b>Neuroticism</b>	Not getting irritated by small annoyances; calm, unemotional; hardy; secure; self-satisfied	Constantly worrying about little things; insecure; hypochondriacal; feeling inadequate

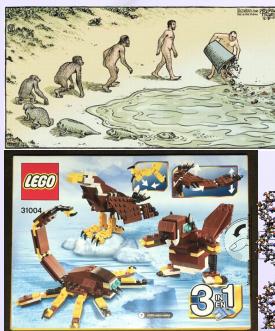
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## In-Group (Love), Out-Group (Hate)



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## Chapter 11: Evolution & Development

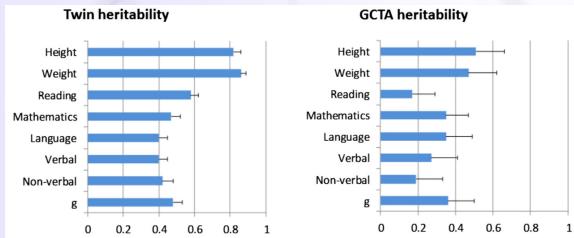


**Genes = Lego instruction pages**

- Base pair (G,C,T,A: Gattaca, nucleotide)
- 3 = one Lego brick (amino acid)
- Gene = Protein = sequence of amino acids (~300 = ~900 bp's, but genes ~27,000 bp)
- Alleles = different instructions for different folks – different gene variants

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## Heritability



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## Babies are Sooooo Cute!!!!

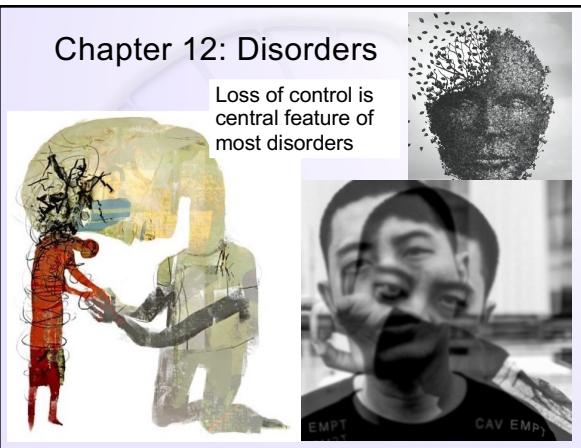


But seriously, how do they learn so quickly (except the diapers part) and without even understanding language at the start?? It's like they have to learn *everything*!!

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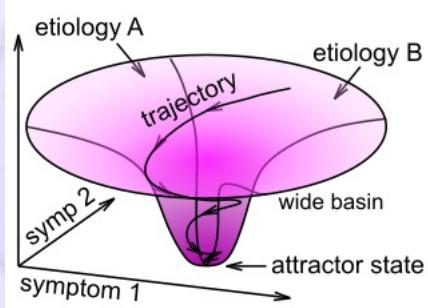
## Chapter 12: Disorders

Loss of control is central feature of most disorders



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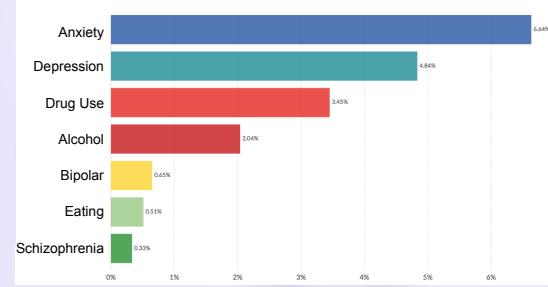
## Comorbidity = Attractor Loss of control / efficacy; Social isolation



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## It's Rough Out There..

Prevalence by mental and substance use disorder, United States, 2017  
Source of the total population with a given mental health or substance use disorder. Figures attempt to provide a true estimate (going beyond reported diagnosis) of disorder prevalence based on medical, epidemiological data, surveys and meta-regression modeling.



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## Therapy is Safe Social Bond Rebuilds Self-Efficacy, Control



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## Therapy (CBT) >= SSRI!



For most anxiety,  
depression cases.  
Has no side effects!  
But is expensive!

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## The Three C's

Compression: KISS!

Contrast: just have to outrun friend, not the bear..

Control: we are all (*secret*) *agents*!

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