## Why we worry about all the wrong things

#### **LONGHORN PHP CONFERENCE**

#### Hello!

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#### Fun Fact:

Has a Sindarin Elvish tattoo



## Disclaimers

1. I am not a therapist or a scientist.

#### 2. I owe a debt of gratitude to these two books, in particular:

- "Algorithms to Live By: The Computer Science of Human Decisions"
- "Thinking in Bets: Making Smarter Decisions When You Don't Have All the Facts"

## Outline

- 1. Common misplaced fears
- 2. Implications for your life
- 3. Where fear and anxiety come from
- 4. Strategies for adapting

" Some neuroscientists claim that humans are the most fearful creatures on the planet because of our ability to learn, think, and create fear in our minds.<sup>11</sup>

## Common misplaced fears

Things many of us worry about unnecessarily

### Fear No. 1



## **0.0003** percent<sup>1</sup>

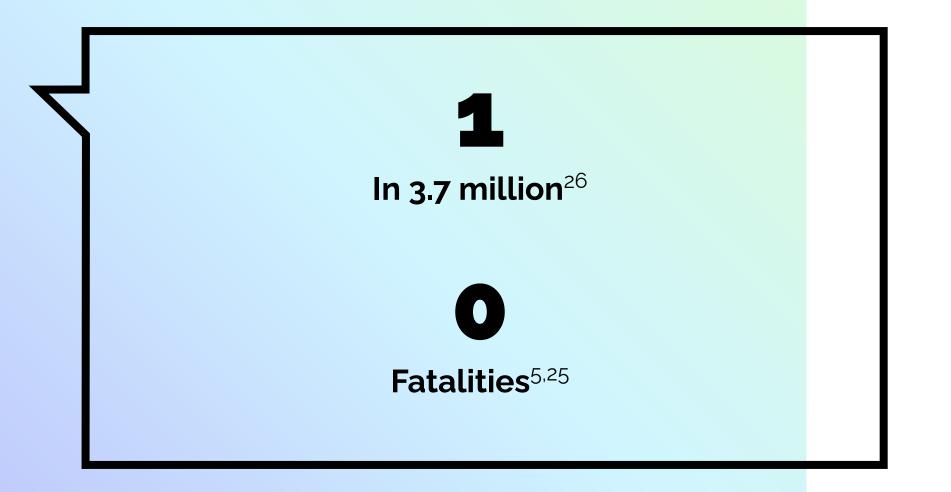
#### **12** in the world<sup>2</sup>

# More likely to be killed by ...



## Fear No. 2





# More likely to be killed by ...



### Ok, fine.

#### So what?

### 2. Implications for your life

The harmful impact of those misplaced fears

#### "Risk perception gap"

- Wasted emotional, mental and physical energy<sup>8</sup>
- Blindsided by actual threats<sup>8</sup>
- Poor decision-making

#### Health concerns

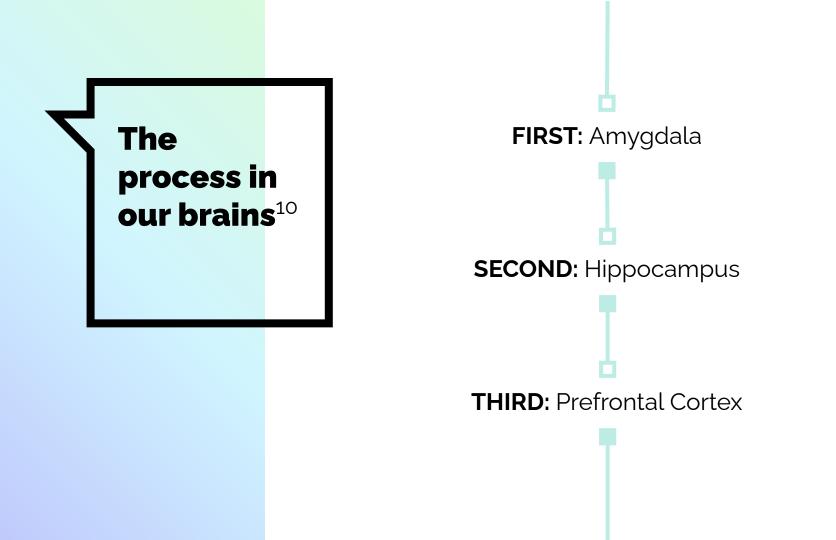
- Weakened immune system, damage to our hearts, ulcers, decreased fertility
- Accelerated aging, even premature death
- Impairs formation of long-term memories

#### Workplace issues

- Self-selecting out of opportunities<sup>19</sup>
- Holding back your team<sup>19</sup>
- Interrupts processes that help us act ethically<sup>9</sup>
- Tension between "perfect" and "done"<sup>20</sup>

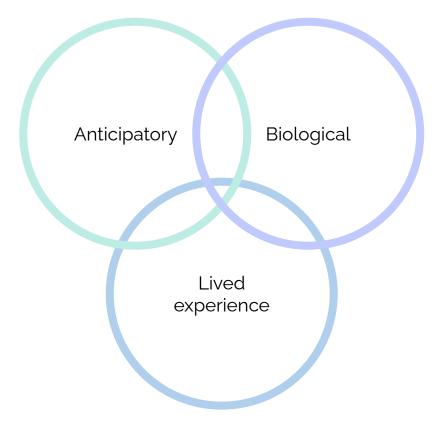
#### 5. Where fear and anxiety come from

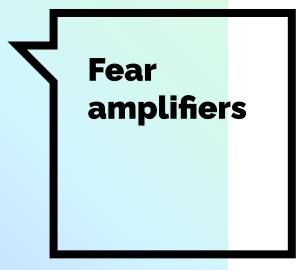
We aren't born afraid ... are we?



Basically, our 'thinking' circuitry of brain reassures our 'emotional' areas.







#### Certain themes

Three recurring themes in films that most scare people<sup>12</sup>

#### Other people

- Called "emotional contagion" or "cultural cognition"<sup>13,14</sup>
- There are indicators this has physiological componentst, not just social<sup>13,15,16</sup>

#### Fear, itself

The more scared you feel, the scarier things will seem.<sup>17</sup>



Catastrophic potential

Familiarity

#### Children

Understanding

Victim identity

**Voluntariness** 

Personal Origin control

## Our risk assessment process is outdated.

- Evolved in natural environment
- Concrete vs. abstract
- Vague rewards

### 4. Strategies for adapting

Tools to lessen fear & make better risk assessments

#### Don't blame yourself

"We are uncomfortable with the idea that

luck plays a significant role in our lives."

Quality of outcome != quality of decision

#### **First things first**

- "Reflexive" vs. "deliberative" mind
- Not a matter of willpower
- Not a matter of using "analytical" part of brain more

#### **Be prepared**

- **63%** Americans who worry about natural disasters
- **78%** Those who see value of emergency supply kit for survival
- **26%** People who have actually made effort to put together such a kit

## Own what you do (and don't!) know

"Every decision is a kind of prediction ... and every prediction, crucially, involves thinking about two distinct things: what you know and what you don't."

# To the algorithms!

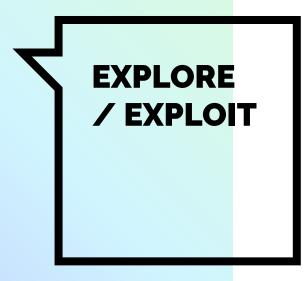


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- Threshold Rule: The more options, the longer you wait for the best
- We often pick too early

 "As options dwindle, be prepared to hire anyone who's simply better than average."



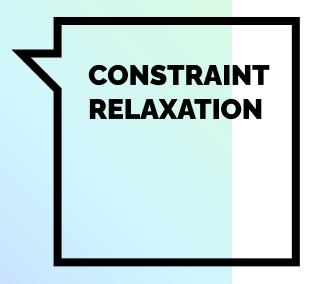
- Our goals should change as we age
- "Explore when you will have time to use the resulting knowledge, exploit when you're ready to cash in."



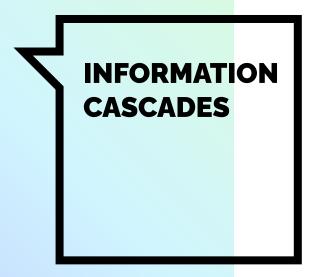
- Choose an option at random, and keep doing it as long as it works.
- Once it doesn't work, switch to a different option.
- Performs reliably better than chance



Junk drawers and piles are actually "one of the most well-designed and efficient structures available."



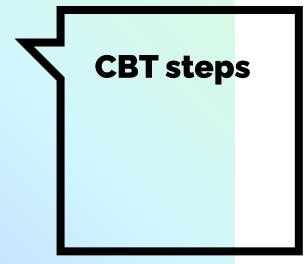
- In an ideal world, what would you do?
- Slowly add the constraints back in



- "Be wary of cases where ... you know more about
  what people are doing than why they're doing it."
- Actions are not beliefs
- If you have doubts, it's for a reason

# Lessons from cognitive behavioral therapy

- Reframing: opportunity to grow instead of loss of control; challenges vs. obstacle
- Specific: Focuses on specific problems, using a goal-oriented approach.



#### **IDENTIFY** ....

... troubling situations or conditions in your life

#### BE AWARE ...

... of your associated thoughts, emotions, beliefs

#### **RECOGNIZE PATTERNS** ...

... that may be contributing to your fear or anxiety

#### **RESHAPE** ...

... your feelings, reactions and behaviors, with time and effort

# Ask for help.

- Sharing fear lessens it.
- Helps us gain perspective, and new information.
- Can help pull us out of our bubble.

44 If we're willing to accept solutions that are close enough, then even some of the hairiest problems can be tamed with the right techniques.

## **Thanks!**

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## **Thanks!**

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## Feedback:

https://joind.in/talk/9ce10



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