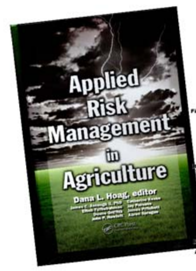
Strategic Risk Management in Agriculture

John Hewlett
Jay Parsons



RightRisk RMA USDA

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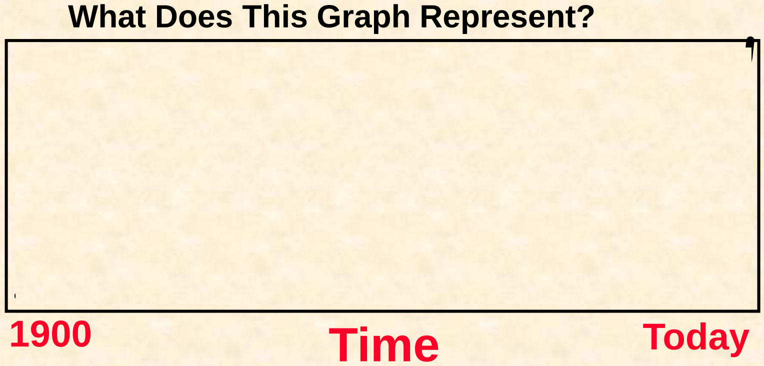
Do It Yourself

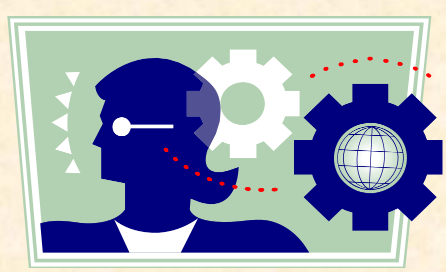
What Does This Graph Represent?



NEW THINKING NEEDED

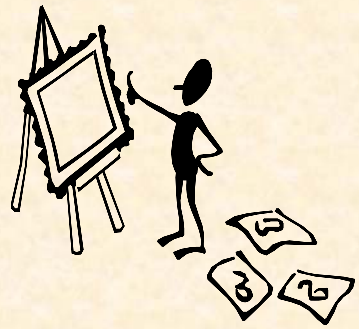
Strategic Thinking Involves

Studying the environment through an intuitive, visual and creative process, which results in an understanding of the emerging themes, issues, patterns and opportunities.



"The best way to <u>predict</u> the future is to <u>create</u> it."

Peter Drucker



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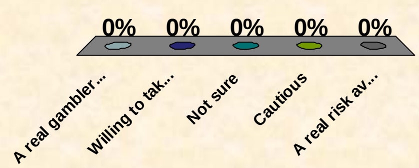
In general, how would your best friend describe you as a risk taker?

1. A real gambler
2. Willing to take risks after completing adequate research
3. Not sure
4. Cautious
5. A real risk avoider



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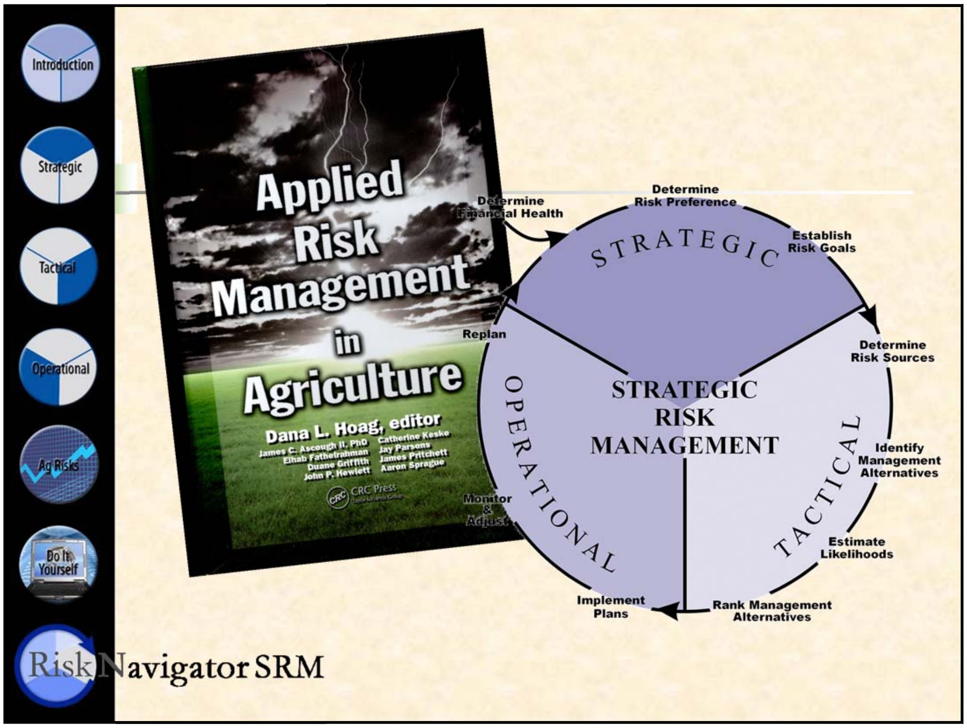
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Applied Risk Management in Agriculture
Dana L. Hoag, editor
James C. Ascough II, PhD
Elhab Fathelrahman
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James Pritchett
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CRC Press
Determine Financial Health
Determine Risk Preference
Establish Risk Goals
Determine Risk Sources
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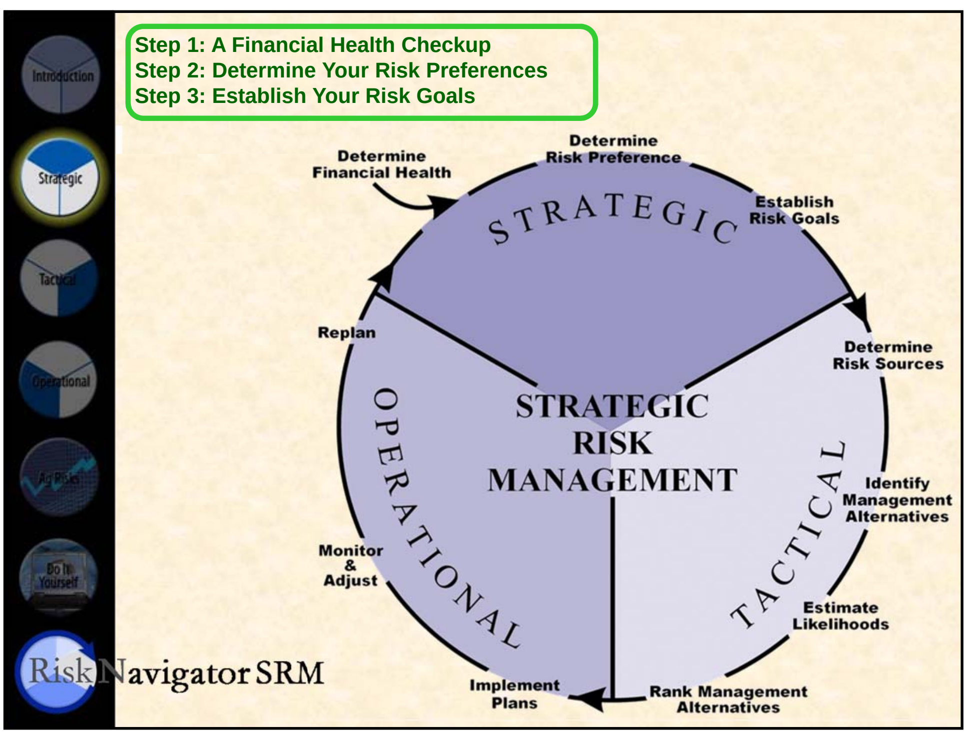
Step 1: A Financial Health Checkup
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Step 3: Establish Your Risk Goals
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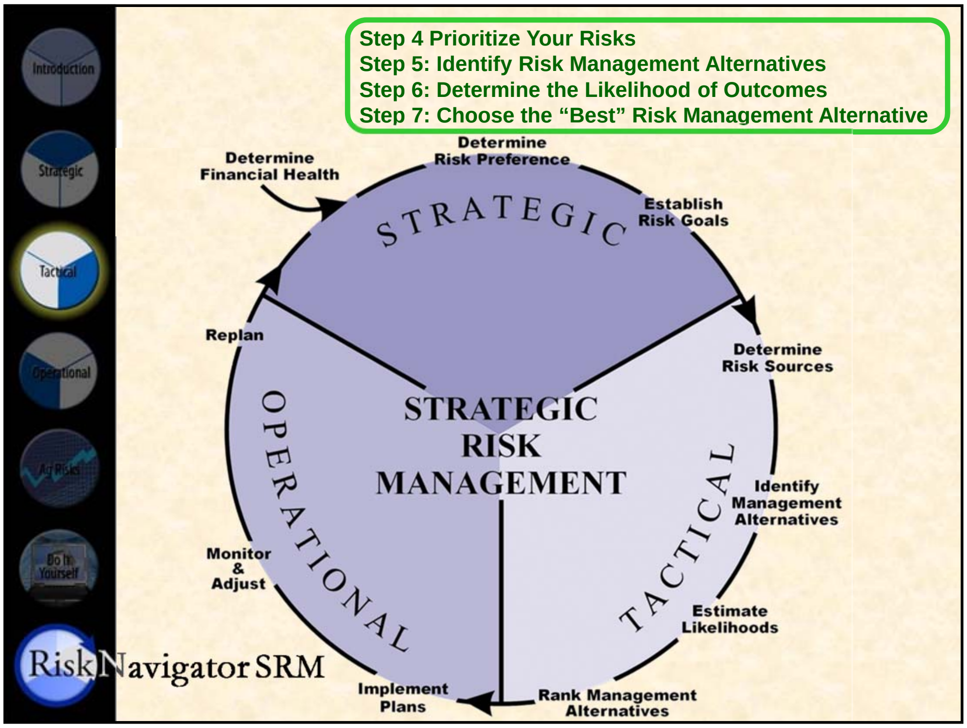
Step 4 Prioritize Your Risks
Step 5: Identify Risk Management Alternatives
Step 6: Determine the Likelihood of Outcomes
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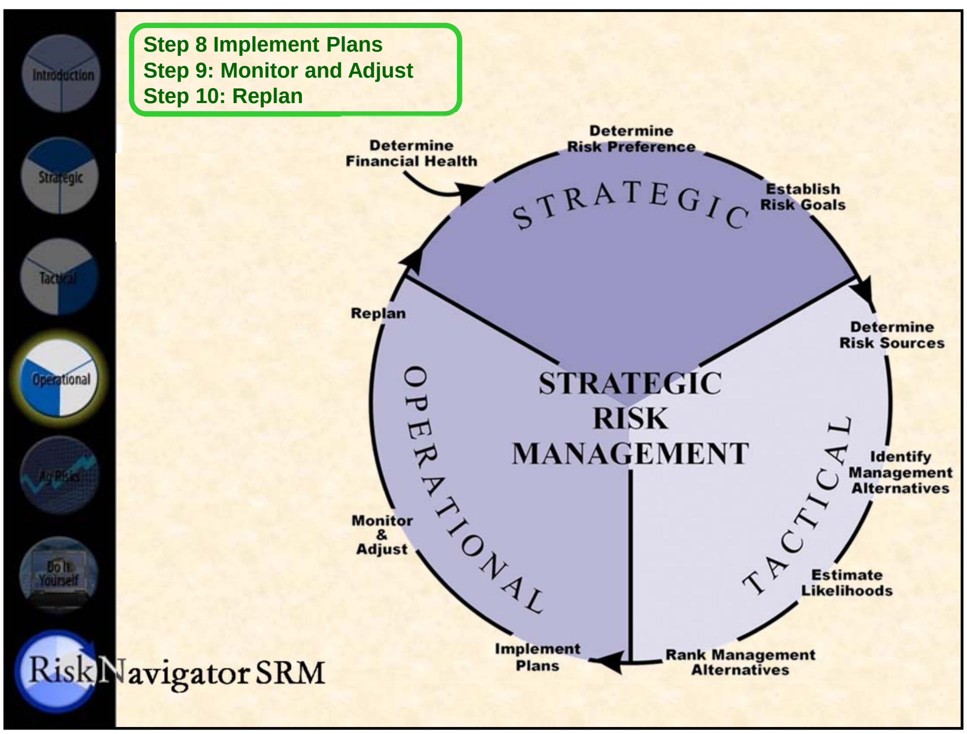
Step 8 Implement Plans
Step 9: Monitor and Adjust
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Summary

WHERE DO YOU WANT TO GO?

STRATEGIC GOALS

WHERE ARE YOU NOW?

Determine FINANCIAL HEALTH,
RISK PREFERENCES and RISK SOURCES

HOW ARE YOU GOING TO GET THERE?

TACTICAL and OPERATIONAL PLANS

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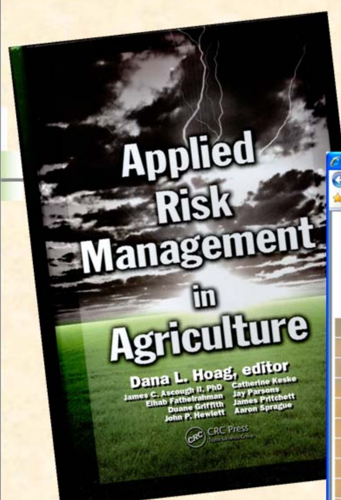

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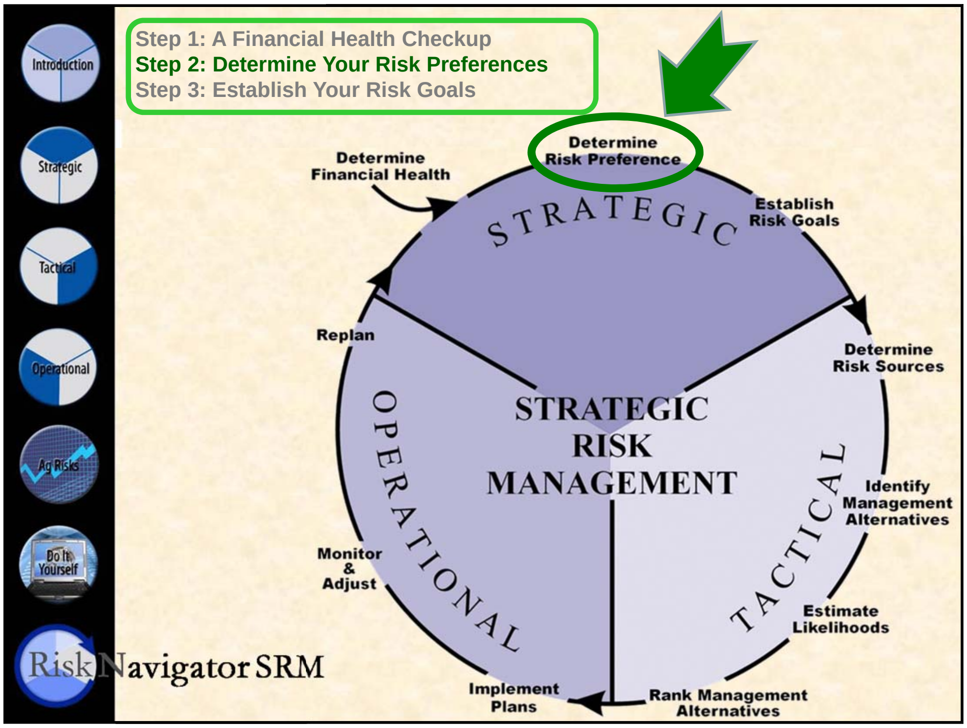
RightRisk

http://RightRisk.org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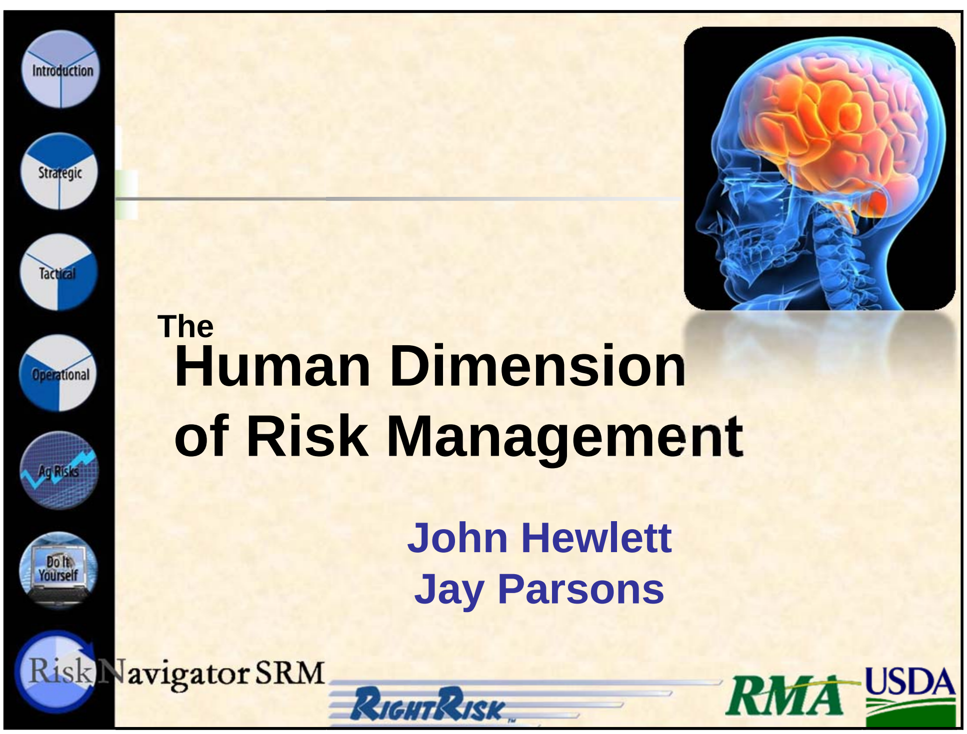
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of Risk Management
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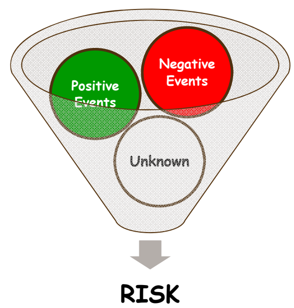
What is RISK?

- **Certainty**- lack of doubt
- **Uncertainty-** doubt about future events
- **RISK-** potential variation in the outcome of future events



Sources of Risk in Agriculture – *Ag Risk 5*

1. Marketing/Price Risk
2. Production Risk
3. Institutional/Legal Risk
4. Human Risk
5. Financial Risk

What is RISK?

- **RISK-** potential ***variation*** in the outcome of future events

None
- Certainty

Level 1
- Outcomes Known

Probabilities Known

Level 2
- Outcomes Known

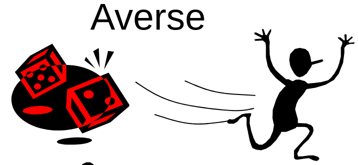
Probabilities Unknown

Level 3
- Outcomes Unknown

Probabilities Unknown

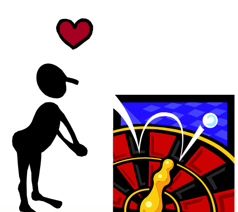
Types of Risk Preference

Risk Averse



Risk Neutral

Risk Loving

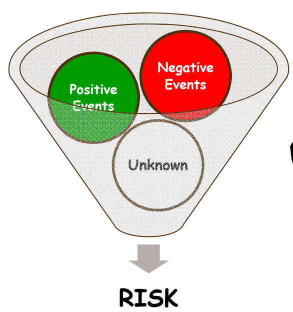


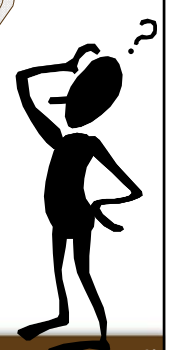
Strategies for Managing Risk

1. Avoid it
2. Reduce it
   a) *Reduce the probability it will happen*
   b) *Reduce the impact if it does happen*
3. Transfer it outside the business
   a) *Insurance*
   b) *Contracting*
4. Increase capacity to bear
   a) *Increase reserves*
   b) *Maintain flexibility*
5. Accept it

What is RISK?

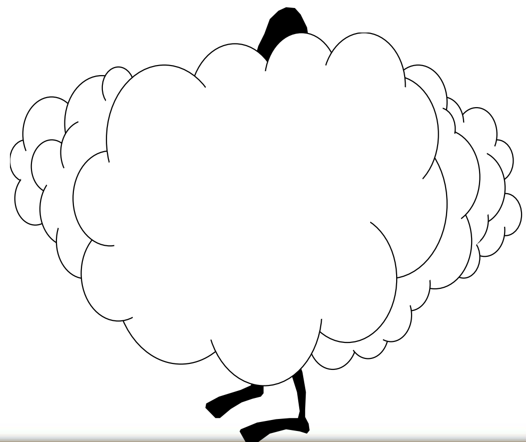
- **Cost of Loss**
  - *Income*
  - *Resources*
  - *Productive capacity, etc.*
- **Cost of Uncertainty**
  - *Worry, doubt, fear, misallocation of resources, etc.*
  - *With potential for gain or loss comes moral or ethical implications*





The **HUMAN** Dimension of Risk Management

- Emotionally we **<u>avoid risk (uncertainty)</u>** to avoid the shame of:
  - *Failure,*
  - *Being wrong,*
  - *Being laughed at*
  - *Being made fun of,*
  - *Loosing the farm, etc.*



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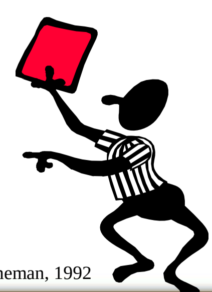
The **HUMAN** Dimension of Risk Management

- Humans tend to be **<u>loss averse</u>** more than **<u>risk adverse</u>**

- **<u>Emotion can cloud</u>** the ability to decide rationally
- The **<u>way questions about risk are framed</u>** will influence attitudes about risk
- **<u>Obtaining more information</u>** about certain risks tends to promote a willingness to take those risks

- People tend to ignore that runs of luck tend to **<u>regress to the mean</u>** over time
- Humans do not possess **<u>all information</u>** necessary to decide in an economically rational manner
- Human choice is often based on **<u>inadequate sampling</u>**



Tversky and Kahneman, 1992

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Risk Tradeoffs

Profits are returns for taking risks

- **Upside**: Greater risk taking usually leads to greater wealth over time
- **Downside**: Losses from risk taking can potentially be devastating
- Managing risks are a matter of **evaluating tradeoffs**
- How much **risk** (uncertainty) are you willing to accept for **possible higher returns**?

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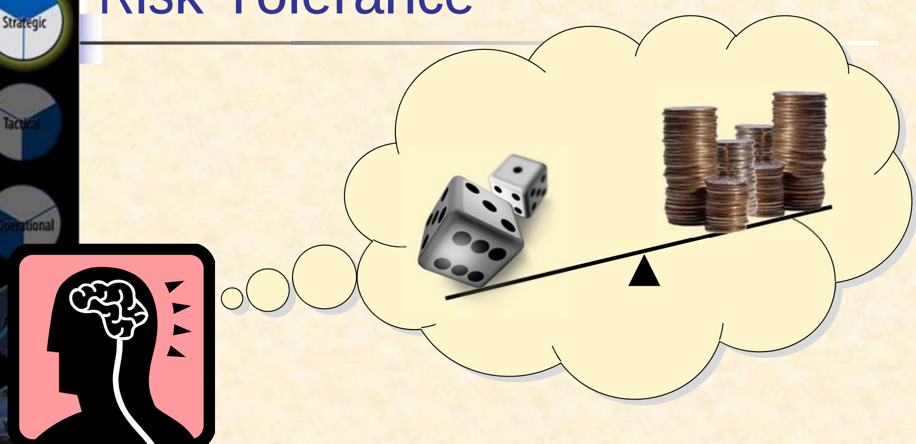
Risk Tolerance



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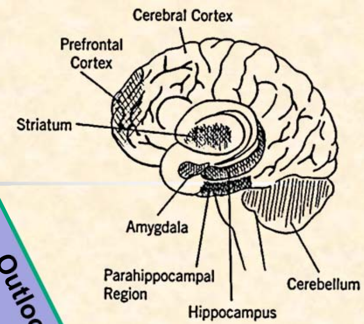
Risk Tolerance: Emotional Style*



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* The Emotional Life of Your Brain, Davison and Begley, 2012.

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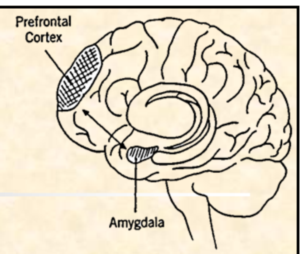
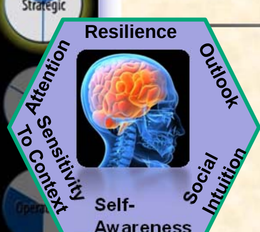
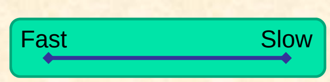




- **Resilience:** *how quickly or slowly you <u>recover</u> from life's setbacks*
- When flooded with emotions, the brain and body attempt to return to the baseline mood, ***resilience*** is a measure of how quickly that occurs.



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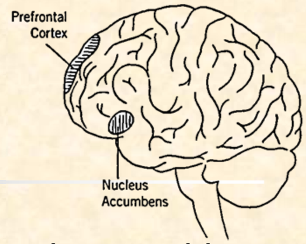

- **Outlook:** *reflects how long and how well you can <u>sustain</u> positive emotions*
- The *outlook* dimension measures how long your brain can sustain feelings of joy or pleasure after a positive event or having positive thoughts.

Negative ⟷ Positive

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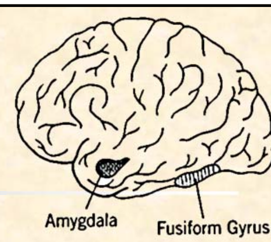

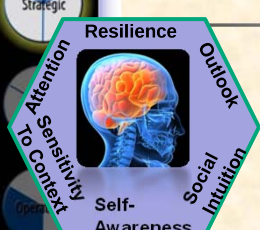

- **Social Intuition:** *how attuned you are to <u>nonverbal social cues</u>*
- *Socially-intuitive* persons can read the body language of others, know what mood they are in, understand meaning from subtle voice intonations or facial expressions.

Puzzled ⟷ Socially Intuitive

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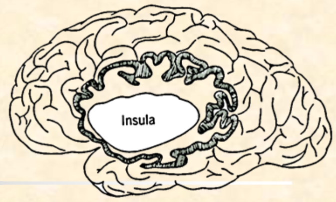

- **Self-Awareness:** *how well you <u>understand</u> or are in tune with your feelings, thoughts, and body messages.*
- Your level of understanding of why you act or react to certain things versus being completely unaware of what is going on inside yourself.

Self-opaque ⟷ Self-aware

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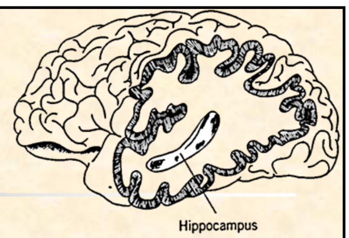
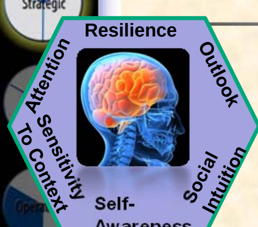
Risk Tolerance: Emotional Style*





- **Sensitivity to Context:** *how well you pick up on the <u>rules of social interaction</u>*
- The <u>outer-directed</u> version of Self-Awareness; how attuned you are to the social environment and actions appropriate to where you are now.

Tuned-out ⟷ Tuned-in

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* The Emotional Life of Your Brain, Davison and Begley, 2012.

Risk Tolerance: Emotional Style*

- **Attention:** *how well you can screen out emotional or other distractions and remain focused*
- A capacity to remain receptive to whatever thoughts, sensory input, or emotion might pass through but remain non-judgmental about it.

Unfocused ⟷ Focused

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* The Emotional Life of Your Brain, Davison and Begley, 2012.

Resilience Scores

How quickly you recover from setbacks

10	Team 1		
5	Team 2		

Score	Resilience Scores
1-2	Very fast to recover
3-5	Fast to recover
6-8	Slow to recover
9-10	Very slow to recover

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Outlook Scores

How long and how well you sustain positive emotions

1010	Team 1		
155	Team 2		

Score	Outlook Scores
100-200	Very positive outlook
300-500	Positive outlook
600-800	Negative outlook
900-1000	Very negative outlook

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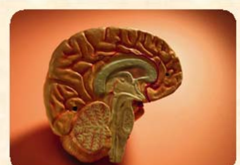
New Risk Management



Risks

- Factor #1
- Factor #2
- Factor #3
- . . .

Returns

- Factor #1
- Factor #2
- Factor #3
- . . .

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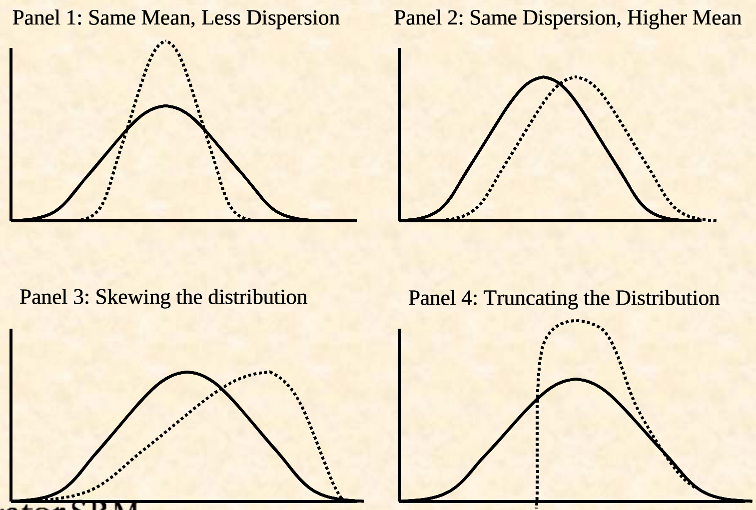
Strategy Choices



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Other False Assumptions

FALSE

- Men are better decision makers (risk managers) under stress than women
- Decision-making capacity declines with age
- Managers under stress are able to make good decisions about advice they receive

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The Human Dimension of Risk Management

- **E**motion matters
- **W**e can better understand ourselves and how we process information
- **F**rom that we can learn to apply new approaches for better success

Better understand how much risk is right for you and your operation

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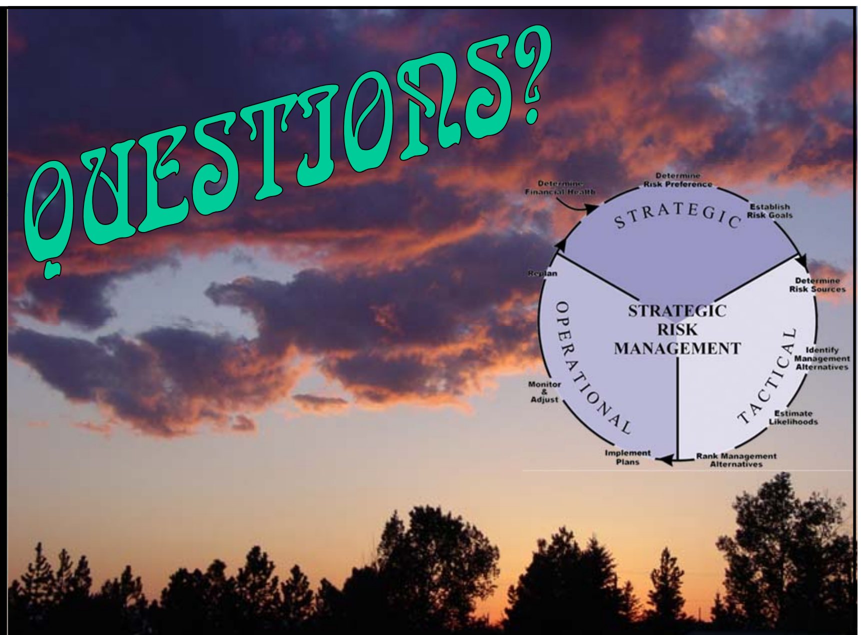

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