Knowledge Question: How does math help us describe and interpret the world?

The Human Mind's Ability to Assess Risk and Think Probabilistically

Situation 1: Which is safer: driving yourself one thousand miles in a car or flying the same one thousand in a commercial airline?

How do you know?

If we didn't use any mathematical means, how could you know? Make a list of ways that people could make conclusions.

Situation 2: Which is safer: Your child playing at the house of someone who whose family owns a handgun or your child playing at the house of someone whose family owns a swimming pool in the backyard?

How do you know?

When people think about this situation, what do they rely on to make their decisions?

Respond: In the absence of any mathematical measures, upon what do people make their assessments of risk?

II. Review answers and read article:

- *10 Ways We Get the Odds Wrong*

- Thinking about the ways of knowing, why do we have such a hard time assessing risk? Try to think beyond the reasons stated in the article.

- What role does or should math play in our understanding of risk and behavior?

Reflection

Why is it that when people learn a "mathematical truth" that contradicts their other ways of knowing or previous conclusions, why do people have a hard time acting according to these truths or believing them?