

## Review from Chapters 2 and 3

### Mental Limitations:

- 1) Perception is an active process shaped by our beliefs and expectations
- 2) In order to deal with the never-ending stream of partial data the brain must interpret and simplify
- 3) Once a view is formed its hard to change.

## The Effect of Mental Limitations

- 1) Cognitive limitations lead people to simplify and take shortcuts.
- 2) Cognitive biases are consistent mental errors caused by the subconscious procedures used in processing information.

## Overview of Hindsight Biases

- 1) Intelligence Estimation involves foresight
- 2) After an analyst makes his or her report, more information will become available which may or may contradict their report.
- 3) When new information comes available it quickly becomes assimilated into the preexisting knowledge.
- 4) Once new information is assimilated it can be difficult to reconstruct the preexisting mindset.

## Necessary Background Information

- 1) Analysts: Analysts are the individuals who do the intelligence analysis
- 2) Consumers: Consumers are the people who read the reports prepared by analysts
- 3) Overseers: After an intelligence failure occurs it is the overseers job to review the analysts work and determine whether or not they should have been able to accurately foresee the event.

## Analysts: Summary

- 1) Analysts often need to evaluate their past estimates and in doing so need to reconstruct their previous mindsets.
- 2) Analysts usually overestimate the extent to which they thought events that actually occur would occur and vice versa.
- 3) 84% of analysts who were asked to give the probability of events happening on one of President Nixon's trips overestimated the probability of occurrence for events they thought actually had happened during the trip.

## Consumers: Summary

- 1) When consumers read an analyst's report they evaluate its quality based on the amount of information they feel that they have learned.
- 2) Consumers tend to exhibit a bias which causes them to underestimate the amount of knowledge imparted by the intelligence documents.

## Consumers: Study Overview

People were given a set of questions and asked to report their confidence along with their answers. They were then divided into 3 groups.

Group 1:

Group 1 was given the same questions (with no answers) and asked to replicate their original answers.

Group 2:

These participants were given answers to the questions and then asked to reproduce their original answers.

Group 3:

The last group received a new set of questions and their answers. They were then asked to respond to these questions as if they did not already know the answer.

## Consumers: Study Conclusion

- 1) Group three underestimated the amount they learned the most.
- 2) The study indicates that by exposing people to answers you cause them to overestimate their prior knowledge and underestimate the amount they learned.
- 3) This kind of bias will cause consumers to rate intelligence reporting lower than is merited.

## Overseers: Summary

- 1) Overseers tend to think that analysts should have been able to predict things that would be unforeseeable based on the information available at the time.
- 2) The book relates this bias to the human tendency to adjust the perceived inevitability of an event's occurrence, when knowledge of that event's outcome is acquired.
- 3) The book describes a study in which participants were asked to estimate the likelihood of an event occurring. One group was not told an outcome. The remaining groups were each told a different outcome.

Experimental Groups	Average Probabilities Assigned to Outcomes			
	1	2	3	4
Not Told Outcome	<b>33.8</b>	<b>21.3</b>	<b>32.3</b>	<b>12.3</b>
Told Outcome 1	57.2	14.3	15.3	13.4
Told Outcome 2	30.3	38.4	20.4	10.5
Told Outcome 3	25.7	17.0	48.4	9.9
Told Outcome 4	33.0	15.8	24.3	27.0

## Conclusion

- 1) All three kinds of bias mentioned seem to be caused by the brains quick assimilation of new information into the preexisting mindset and the difficulty of reconstructing the previous mindset afterwards.
- 2) In one of the tests mentioned in this chapter some participants were given the results of previous testing and asked to compensate for the bias. They were unable to do so, indicating the difficulty in overcoming bias.
- 3) The book posits one solution: that people try to evaluate what their responses would be if the opposite had happened.