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Decisive History Volume 1: Challenger Explosion and Groupthink

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A decision is made:

On January 28th, 1986 the fatal decision was made to launch the space shuttle Challenger. That day seven astronauts lost their lives as the shuttle exploded and littered the Atlantic Ocean with its remnants.

What went wrong?

The air temperature on that particular day was 15°F lower than on previous launches. Engineers brought forward concerns questioning the performance of an "O-ring seal" under cold temperatures, but ultimately the decision was made to go forward. Shortly after launch the



seal failed and caused hot pressurized gas to leak, causing the shuttle to explode. (1)

Several case studies on the accident concluded that a cognitive bias referred to as "Groupthink" was present in the decision making process which lead to the Challenger explosion.

What is groupthink?

Psychologist Irving Janis coined the term groupthink and defined it as (2):

"A mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members' strivings for unanimity override their motivation to realistically appraise alternative courses of action". (2)

Janis described precursors and symptoms of Groupthink in decision making (2). According to a popularly cited case study by Moorhead, Ference, and Neck (1991), 3 precursors and all 8 symptoms were present in the decision-making process that lead to the Challenger explosion. (1)

Precursors of Groupthink (1)

1. Cohesive Group
2. Insulation from Experts
3. Leader Preferences

Groupthink Symptoms (1)

1. Illusions of Invulnerability
2. Rationalization
3. Inherent Morality
4. Stereotyped Views of Others
5. Pressure on Dissent
6. Self Censorship
7. Illusions of Unanimity
8. Mindguarding

While the symptoms support that Groupthink was involved in the disaster, understanding the precursors can help us to avoid Groupthink in future decisions.

Precursors for Groupthink and How to Avoid Them

Cohesive Group

The top decision-making team responsible for the Challenger launch was very familiar with each other. They had worked with each for many years prior to the mission.
(1)

Group cohesiveness in decision-making can be deceiving. Decisions are often made quickly and with high levels of consensus, but this doesn't always correlate to the BEST choices. When alternatives are overlooked, because cohesion is favored over individuality, poor decisions can arise.

How can you avoid this?

Remember a quick decision doesn't always mean a great decision. Carefully examine alternatives by bringing

together diverse groups of people with varied backgrounds. It is important that the solution is the priority rather than pleasing, or being an appeasing group member.

Insulation from Experts

Engineers were isolated from the core decision-making group. While engineers made recommendations not to launch the Challenger, their opinions were dismissed in favour of launch. (1)

Leaving subject matter experts out of decisions can cause huge problems. You wouldn't try to complete a puzzle without all of the pieces so why make a decision without all of the proper information?

How can you avoid this?

Recognizing that your team doesn't always have the expertise to make informed decisions is important and seeking help is never a bad thing. This reinforces the importance of having diverse perspectives and different subject matter experts involved in decision-making. Always plan to request feedback & expert opinions ahead of making important decisions.

Leader Preferences

In the Challenger launch, two of the top-level managers pushed for launch against the recommendations from engineers. (1)

It is easy to see how strong leader preferences can lead to flawed decision-making. Leaders are often very invested in decisions and thus have strong opinions. As a team member, voicing objections or concerns to a superior can be very intimidating, especially if they have a strong opinion.

How can you avoid this?

Leaders often forget that their role isn't always to be the "decision maker" but to facilitate their team to make the right decision. A good leader is someone who actively listens to their team's opinions and concerns. As a leader encouraging decisions to be made by the team as a whole can go a long way in preventing Groupthink.

At Pownoodle we strive to combat Groupthink and other cognitive biases in decision-making. By eliminating time, distance and cultural barriers we ensure you can capture diverse perspectives from all the right people. Through anonymity we provide an environment where each team member feels safe participating. We give everyone the ability to make better decisions!

References:

1. Moorhead et al (1991). Group decision fiascoes continue: Space shuttle Challenger and a revised Groupthink framework. *Human Relations*, 44: 539-550.
2. Janis, I. L. (1972). *Victims of groupthink*. Boston: Houghton Mifflin.



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