



**SCHAEFFLER**

# Positive Leadership: Mindset & Echipa

10 mai 2024  
Octavian Pantiș

**QUALIANS**  
Change how you learn.  
Learn how to change.

© Qualians

1

# Carter Racing

**Decideți ce e de făcut:**

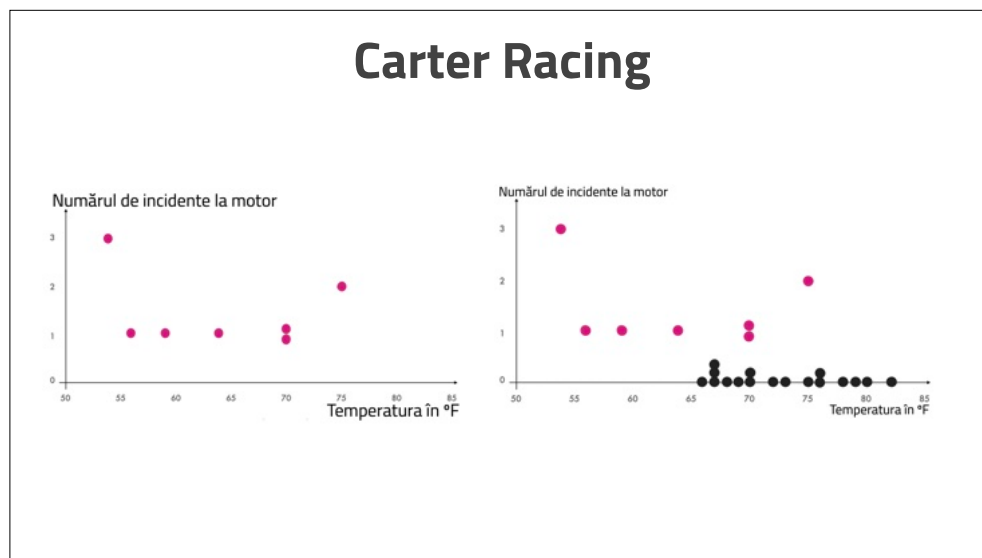
1. NU, fără îndoială nu concurăm
2. Nu concurăm
3. Tentant, dar nu concurăm
4. Concurăm, decizie la limită
5. Da, concurăm
6. DA în mod cert, concurăm

Pregătiți răspunsul echipei și deciziile individuale.

**Teme de discuție**

- Care au fost punctele de cotitură în decizia voastră?
- Ce știți și ce ați presupus?
- Ce date ați luat în calcul și ce date ați ignorat?
- În ce fel ați luat în calcul aspectele emoționale ale deciziilor?
- Cum ați gestionat diferențele de opinie?
- Ați lua aceeași decizie încă o dată?

2



3



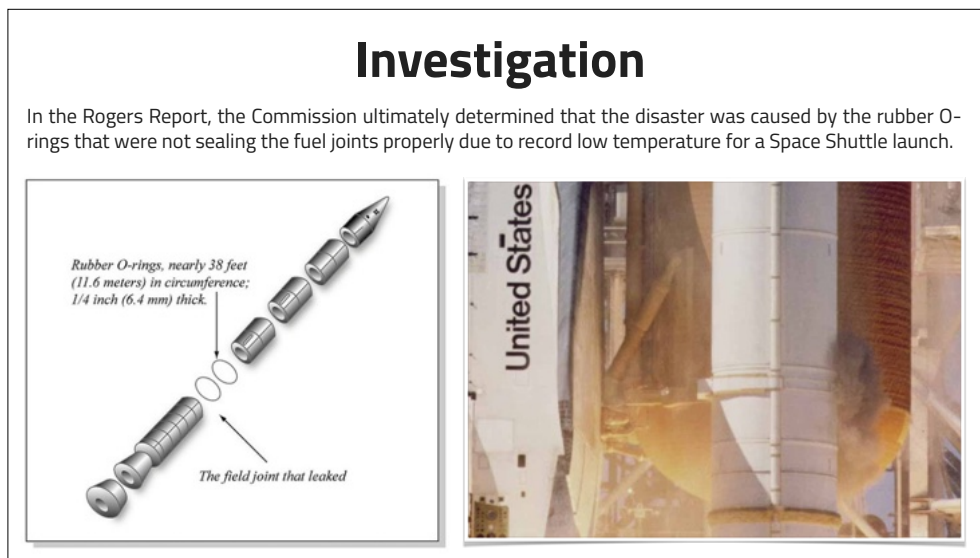
4



5



6



7



8





9

## Meeting on the night before the launch

18°F (-8°C) outside at the time of meeting. Later, temperature dropped to 8°F (-13°C)

NASA Kennedy  
Space Center  
Florida

Morton  
THIOL  
Operations  
Utah

NASA Marshall  
Space Center  
Alabama

Others

10

## Who said what

- Thiokol engineer Boisjoly presents 13 charts with findings on the instability of O-rings. Due to low temperature overnight, he recommends against launching;
- Thiokol VP of Engineering Bob Lund said temperature must be above 53°F (12°C) for launch and recommends against launch on January 28;
- Larry Mulloy, NASA Booster Project Manager, ignores Lund and asks Kilminster - Thiokol VP of Space Booster Program - for his take. Kilminster supports his engineers and recommends against launch below 53°F;
- Mulloy: "My God, Thiokol, when do you want me to launch, next April?"... "We get a little cold nip and they want to shut the shuttle system down?";
- NASA's Deputy Science & Engineering Director Hardy "appalled" at Thiokol's recommendation, but would not launch over their objection;
- NASA leaders had made it known, that "under no circumstances, is the Marshall Centre to be the cause for delaying a launch";
- Thiokol management was told its exclusive contract with NASA was in jeopardy and that NASA was seeking bids from "a second source" on the lucrative (\$1 billion) Solid Rocket Motor contract;
- Kilminster requests a 5-minute break.

11

### RECOMMENDATIONS :

° O-RING TEMP MUST BE  $\geq 53^{\circ}\text{F}$  AT LAUNCH

DEVELOPMENT MOTORS AT  $47^{\circ}\text{F}$  TO  $52^{\circ}\text{F}$  WITH  
PUTTY PACKING HAD NO BLOW-BY  
SRM 15 (THE BEST SIMULATION) WORKED AT  $53^{\circ}\text{F}$

° PROJECT AMBIENT CONDITIONS (TEMP & WIND)  
TO DETERMINE LAUNCH TIME



12

## Internal THIOKOL meeting

- Jerry Mason, Senior VP Operations: "A management decision is necessary";
- The engineers' instincts tell them that an attempt to reverse the no-launch decision is coming. They again go over charts and data to reconvince executives of the danger;
- The room is silent;
- Mason: "Am I the only one who wants to fly?"
- Mason to Lund (who was quiet and torn): "it's time to take off your engineering hat and put on your management hat";
- Feeling the pressure, Lund and Kilminster ultimately concede. The 4 THIOKOL leaders vote unanimously to recommend Challenger's launch.

13

## Back to the big meeting

- Kilminster: "Even though the low temperatures are concerning, we have reassessed the data and have concluded that it is inconclusive";
- NASA fully accepts the reassessment. They ask Kilminster to put it in writing, sign it and fax it to Kennedy Space Center.

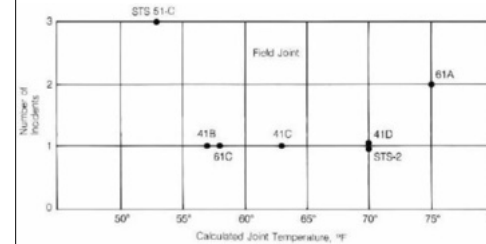


Fig. 6. Plot of flights with incidents of O-ring thermal distress as function of temperature

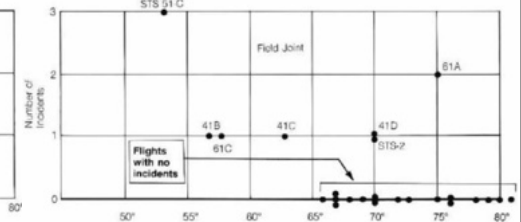


Fig. 7. Plot of flights with and without incidents of O-ring thermal distress

14

## Later

- Engineer Brian Russel recalls: "I knew how to run the fax machine and I'm the one who sent it down. That's the time that I wish, I wish so badly that I'd have just said 'There's a dissenting view here'";
- Larry Mulloy: "Given the information I had at the time, I can't say that anything different would have been done. I do regret that it wasn't." Retired July 1986.

### Information Sources

- Dr. Chris Moos (2023) Lecture at Saïd Business School, University of Oxford
- Litwak, J. (2020) The Toxic Triangle: Chronicle of a fatal teleconference. PennState Leadership blog
- (1986) Presidential Commission on Space Shuttle Challenger and Rogers, W. P. Report of the presidential commission on the space shuttle challenger accident
- Bell, T.E. and Esch, K. (1987) The fatal flaw in flight 51-L: Events leading up to the ill-fated challenger launch proved more of a surprise than the disaster itself for what they revealed of NASA's inability to correct obvious design errors. IEEE Spectrum 24(2).
- Vaughan, D. (1986) Structural secrecy and organizational misconduct: NASA and the space shuttle Challenger. In *meeting of the Academy of Management*, Chicago.

15

## Which biases were at work here?

Bias: inclination or prejudice for or against someone or something.

### Action bias

People favour action over inaction, even when there is no indication that doing so would point towards better results.

### Anchoring

The tendency to overweigh an initial piece of information.

### Affect heuristic

The emotionally preferred decision crowds out the rational one.

### Availability heuristic

The tendency to overweigh available information.

### Confirmation bias

The tendency to use information in a way that confirms prior beliefs.

### Escalation of commitment

Maintaining consistency with previous decisions, even in face of increasingly negative outcomes.

### Groupthink

The tendency of groups to minimise conflict by converging on a decision because it appears to be gathering support.

### Optimism bias

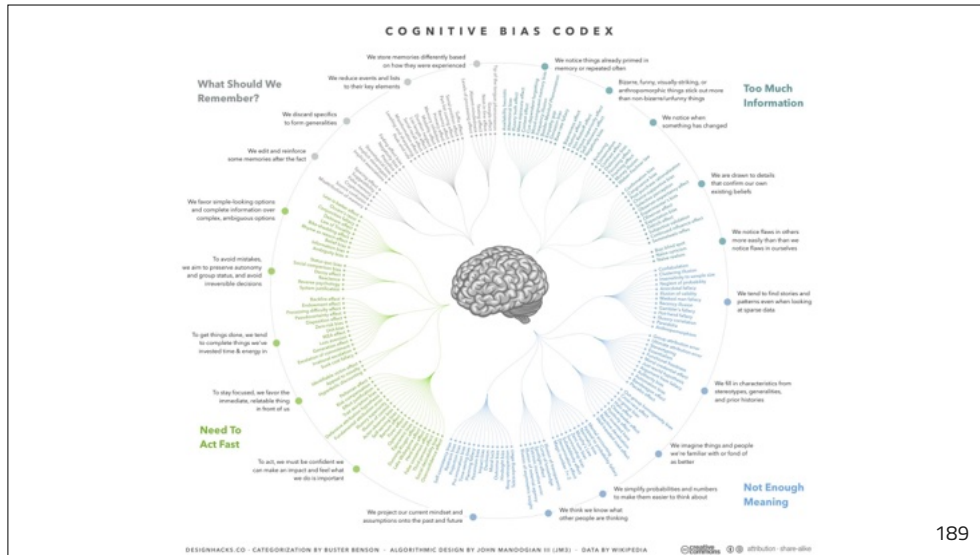
Overestimation of positive outcomes and underestimation of negative outcomes.

### Overconfidence bias

Subjective confidence in judgments is reliably greater than the objective accuracy of those judgments.

16





17

## Can sunshine affect the decisions of investors?

**Incidental contextual factors can significantly affect investor moods (affect heuristic) and subsequent decisions**

- Start-ups pitches to investors; investors decide if they want to invest
- An increase of sunshine by 4.2 hours on the day of the investment decision was associated with a significant increase of 3.6% in the likelihood of receiving funding
- This effect is stronger under intense uncertainty, where
  - (a) start-ups are nascent
  - (b) founders have limited human capital

Source: Dushnitsky, G. and Sarkar, S., 2022. Here comes the sun: the impact of incidental contextual factors on entrepreneurial resource acquisition. *Academy of Management Journal*, 65(1), pp.66-92.

© Dr Chris Moos 41

18

## Can hunger affect the decisions of judges?

**Timing and moods (e.g., hunger, thirst, pain) trigger emotional states (affect heuristic) that influence decisions**

- Researchers examined 1,112 judicial rulings in a parole court over a 10-month period
- At the beginning of the day, a judge was likely to give a favourable ruling ~65% of the time
- Irrespective of crime — murder, rape, theft — a criminal was more likely to get a favourable response if their parole hearing was scheduled in the morning or immediately after a food break

Fig. 1. Proportion of rulings in favor of the prisoners by ordinal position. Circled points indicate the first decision in each of the three decision sessions; tick marks on x axis denote every third case; dotted line denotes food break. Because unequal session lengths resulted in a low number of cases for some of the later ordinal positions, the graph is based on the first 95% of the data from each session.

Source: Danziger, S., Levav, J. and Avnaim-Pesso, L., (2011). Extraneous factors in judicial decisions. *Proceedings of the National Academy of Sciences*, 108(17), pp.6889-6892.

© Dr Chris Moos 42

19

# Before You Make That Big Decision

By Daniel Kahneman, Dan Lovallo, and Oliver Sibony, HBR June 2011.

"Awareness of the effects of biases has done little to improve the quality of business decisions."

"Knowing you have biases is not enough to help you overcome them."

"Executives can't do much about their own biases."

20

## Ask yourself

# 1

### CHECK FOR SELF-INTERESTED BIASES

Is there any reason to suspect the team making the recommendation of errors motivated by self-interest?

**Review the proposal with extra care, especially for overoptimism.**

# 2

### CHECK FOR THE AFFECT HEURISTIC

Has the team fallen in love with its proposal?

**Rigorously apply all the quality controls on the checklist.**

# 3

### CHECK FOR GROUPTHINK

Were there dissenting opinions within the team?  
Were they explored adequately?

**Solicit dissenting views, discreetly if necessary.**

21

## CHALLENGE QUESTIONS

## Ask the recommenders

# 4

### CHECK FOR SALIENCY BIAS

Could the diagnosis be overly influenced by an analogy to a memorable success?

**Ask for more analogies, and rigorously analyze their similarity to the current situation.**

# 5

### CHECK FOR CONFIRMATION BIAS

Are credible alternatives included along with the recommendation?

**Request additional options.**

# 6

### CHECK FOR AVAILABILITY BIAS

If you had to make this decision again in a year's time, what information would you want, and can you get more of it now?

**Use checklists of the data needed for each kind of decision.**

# 7

### CHECK FOR ANCHORING BIAS

Do you know where the numbers came from? Can there be ...unsubstantiated numbers? ...extrapolation from history?

**...a motivation to use a certain anchor? Reanchor with figures generated by other models or benchmarks, and request new analysis.**

# 8

### CHECK FOR HALO EFFECT

Is the team assuming that a person, organization, or approach that is successful in one area will be just as successful in another?

**Eliminate false inferences, and ask the team to seek additional comparable examples.**

# 9

### CHECK FOR SUNK-COST FALLACY, ENDOWMENT EFFECT

Are the recommenders overly attached to a history of past decisions?

**Consider the issue as if you were a new CEO.**

22

## Ask about the proposal

# 10 11 12

### CHECK FOR OVERCONFIDENCE, PLANNING FALLACY, OPTIMISTIC BIASES, COMPETITOR NEGLECT

Is the base case overly optimistic?

**Have the team build a case taking an outside view; use war games.**

### CHECK FOR DISASTER NEGLECT

Is the worst case bad enough?

**Have the team conduct a pre-mortem: Imagine that the worst has happened, and develop a story about the causes.**

### CHECK FOR LOSS AVERSION

Is the recommending team overly cautious?

**Realign incentives to share responsibility for the risk or to remove risk.**

23

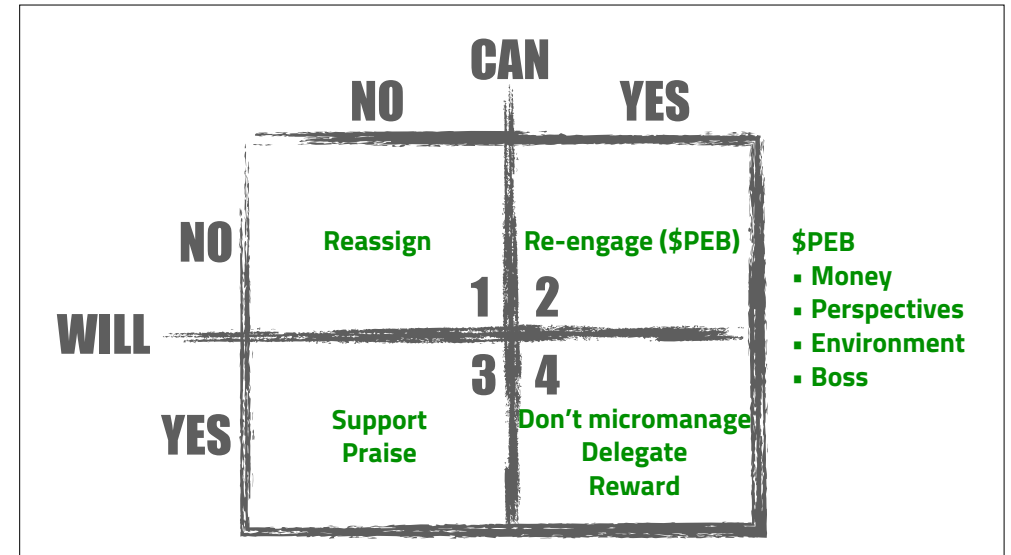


24

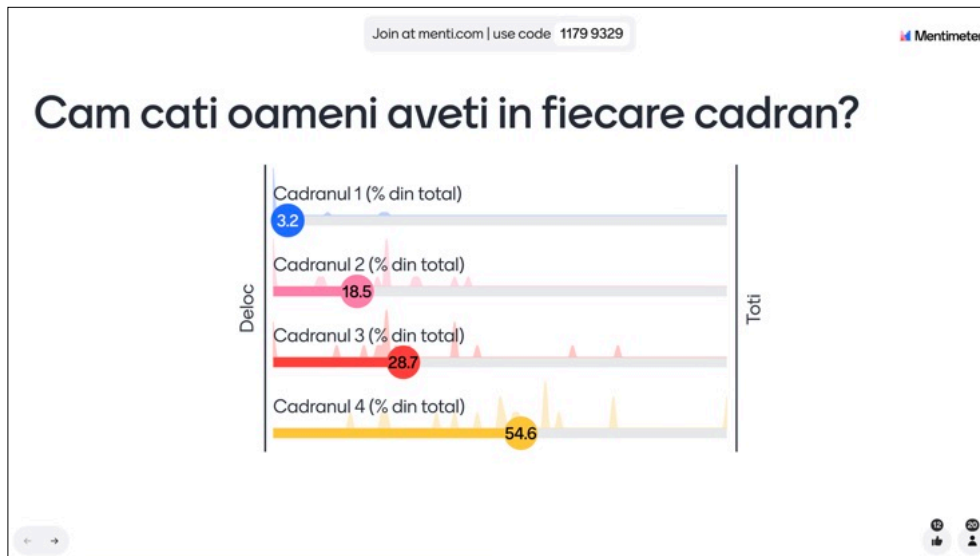




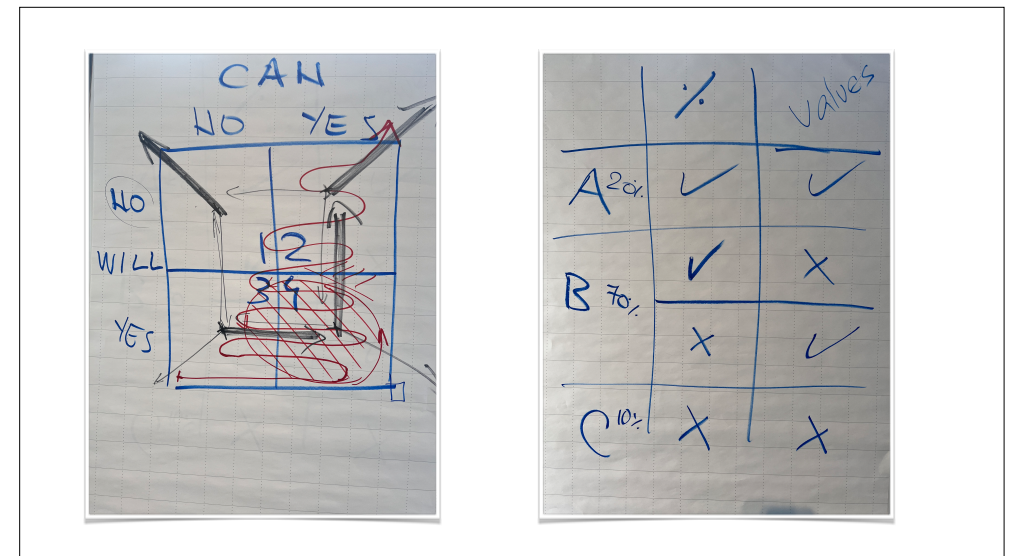
25



26



27

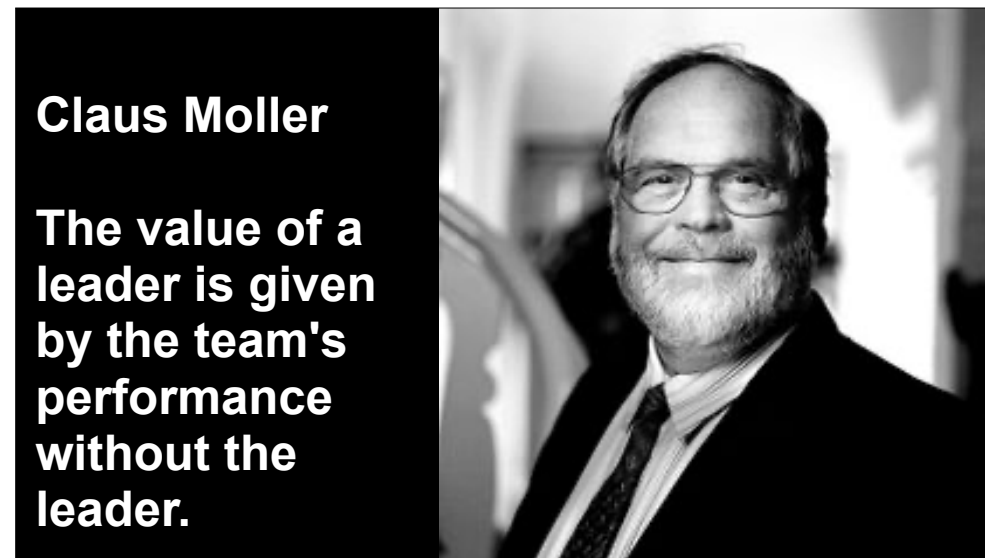


28





29



30

Join at menti.com | use code 1179 9329

Mentimeter

**1 Insight / 1 Action**  
24 responses

|                               |                                 |   |   |
|-------------------------------|---------------------------------|---|---|
| 3 lung 4 means 4 forever2 out | Can/Will                        | Insights: BIAS + CAN/WILL   | De confirmat cu membrii din echipa evaluarea can-will         |
| Praise Nr3                    | Team evaluation                 | Curba evolutiei do-will   | Reward nr4  |
| Focus pe cadran 2. Re-engage  | Cadranul Can/ will              | Analiza can-will cu câțiva din colegi                             | No one ai ever fired was surprisedAction: CAN/WILL discussion |
| 10%                           | Reward vs praise                | Jack Welch's quote: No one I ever fired was surprised.Discutie cu | No surprise when fired.                                       |
|                               | Transparentizare bias in echina |   |   |

31

Join at menti.com | use code 1179 9329

Open Mentimeter

**1 Insight / 1 Action**  
24 responses

|   |   |   |  |
|---|---|---|--|
| 10%   | Transparentizare bias in echipa   | Jack Welch's quote: No one I ever fired was surprised.Discutie cu persoana din cadranul 1 | No surprise when fired.  |
| Cadranul can-will BIAS  | Diagrama Can/Will - drumul din 3 in 4 și 4 in 3. Apreciera rezultatelor din 3 | Feedback transparent in baza "No one I let go was surprised"                              | Sa fiu mai atenta la reactiile oamenilor cand avem decizia "finala" pentru o tema si sa intreb daca mai sunt si alte aspecte de care sa trebui sa tinem cont, astfel incat sa fie cea mai buna decizie |
| Actively check the evolution of employees from 3 to have defined the right direction to 4, and to avoid those in 4 to get in 2. | Leadership=rezultate+comportament   | Citesc cartea lui JWCitesc despre Bias vs Leadership Transfer din 2 in 4                  |  |

32