Cognitive Biases Limiting
Your Contributions to Your Team's Progress

We are taught that leaders and managers should "*learn the psychology of individuals, the psychology of a group, the psychology of society, and the psychology of change*."[i]

Individual cognitive biases can have damaging effects when they surface within the work of a team. Recognizing and moderating your own cognitive biases is crucial. These ten biases are among the many that will significantly impede your effectiveness as a team member by affecting how you make decisions, join in teamwork, and approach the overall work of improvement.

Bias Description	Impact on the team	Mitigation methods
Status Quo Bias The preference for maintaining the current situation or a previous decision and resistance to actions that may lead to change.	• Hinders the adoption of new, more effective practices • Directly contradicts Deming's Point 5: "*Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs.*" • Leads to poor decision-making by favoring stability over exploring new options • Causes teams to miss out on growth opportunities if they are reluctant to take risks that could benefit the organization • Creates resistance to adapting to new processes or procedures, hindering organizational development • Focuses too much on common knowledge or widely understood information, neglecting unique insights held by individual members, leading to suboptimal decisions	• **Promote Awareness of the bias**: The first step in mitigating status quo bias is to recognize its existence and influence on decision-making. Educating team members about this and other cognitive biases can increase awareness and encourage more deliberate, critical thinking when evaluating options that deviate from the current state. • **Encourage Experimentation and pilot programs**: Develop at least seven responses to Q#3 of the Three Basic Questions: *"What moves can we make that will produce improvement?"* • **Establish clear goals and objectives**: As a team, develop answer Q#1 of the Three Basic Questions: *What are we trying to accomplish?* • **Create a culture of continual improvement** *Deming's Point #5: Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs.* • **Use data and evidence to support change** Data collected during PDSA cycle DO phase • **Acknowledge & recognize innovation, risk-taking and learning**

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Confirmation Bias is a cognitive bias where individuals tend to seek out, interpret, favor, and recall information that confirms their pre-existing beliefs or hypotheses.	• Narrows views on issues leading team members to overlook contradictory information or alternative viewpoints that could improve decision-making. • Reinforces existing biases and hinders the exploration of diverse perspectives. • Results in flawed conclusions and poor judgments due to a selective focus on information that aligns with preconceived notions. • Can lead to dismissing valuable feedback, input from teammates or data that could lead to improvement.	• **Implement structured decision-making processes** Use frameworks like the "*Six Thinking Hats*" from Edward de Bono or other structured decision-making processes that have team members consider multiple aspects of a problem, including data and perspectives that may contradict their initial assumptions. • **Encourage team members to challenge their own assumptions** and actively seek out diverse perspectives. • **Promote active listening, open communication** and other practices that value and apply open-mindedness, and constructive debate. • **Use Devil's Advocate or Red Team Exercises** encouraging consideration of alternative viewpoints and information that might not align with initial beliefs • **Conduct Pre-Mortem and Post-Mortem analyses**. Before starting a project, imagine failure and work backwards to foresee what leads to that. After a project, analyze all aspects and interactions to learn from what went well and what didn't.

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Anchoring Bias is a cognitive bias that occurs when individuals rely too heavily on an initial piece of information (the "anchor") when making decisions, even if it's unrelated or irrelevant to the decision at hand.	• Skews judgments. • Limits the exploration of alternative solutions or innovations. • Leads team members to base their decisions on initial information, potentially neglecting important data that emerge later. • Restricts the team's ability to adapt and consider alternative viewpoints or new information. • Results in suboptimal decision-making and strategies due to an undue emphasis on the initial anchor	• **Make team members aware of its existence** and how it can influence their judgments. • **Pre-decision information gathering** Collect data and insights from a variety of sources and perspectives, diminishing the impact of any single anchor. • **Challenge initial assumptions** "How could we know?" "In what world would that be true?" "In what world would that not be true?" Encourage team members to support their reasoning and consider alternatives. • **Use a range of estimates**. Scenarios. Upper and lower process limits with process averages. Teams should not function like financial systems which seek a single value. When making predictions or estimates, encourage team members to think in terms of ranges • Independent analysis: Before group discussions, have team members perform their own independent analyses or estimates. • **Implement deliberative decision-making processes**. Use structured decision-making frameworks such as those outlined in the Nov. 2023 IQI Member Newsletter: - Choosing By Advantages Decisionmaking System (CBA) - Criteria Matrix - Multi-voting (n/3) • **Seek external perspectives and feedback.**
Sunk Cost Fallacy Continuing to invest resources (time, money, effort) into a project or decision based on past investments, even when the current costs outweigh the benefits.	• Cling to failing projects or ideas. • Impedes ability to pivot or abandon ineffective processes • Focus on past commitments rather than present and future considerations • Attached emotionally to prior investments, clouding judgment • Persist with endeavors that are no longer in their best interest • Hinders adaptability and innovation as team members • Creates reluctance to change course even when it is necessary for success. • Increases likelihood of decision-making based on emotional attachment rather than rational assessment	• **Integrate "STUDY" and "ACT"** into all decision cycles, declaring past investments, and "decisions" elements of learning cycles • **Reset and Reflect.** Be willing to recognize when a decision is no longer beneficial and pivot [*ACT-Adopt, Adapt, or Abandon*] accordingly. Focus on updated predictions of future costs/benefits. • **Drive out fear.** Encourage dissent, fostering a culture where dissenters feel safe to speak up. Having formal methods that encourage alternative viewpoints can help avoid falling into the sunk cost trap without becoming overly risk-averse • **Seek Feedback.** Encourage team members to provide feedback, offering fresh perspectives, contributing to more effective decisions

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Groupthink The phenomenon where a group prioritizes consensus and conformity over critical thinking and critical analysis. Charismatic leaders and strong group identity increase susceptibility	• Stifles individual creativity • Inhibits individual dissent • Fails to consider diverse perspectives • Develops collective rationalization and self-censorship • Leads to irrational or suboptimal decisions • Prevents the challenging of processes (necessary for improvement). • Sacrifices independent thinking for group cohesion • Creates an illusion of invulnerability, rationalizing decisions, and an illusion of unanimity • Develops the Illusion of invulnerability, • Neglects alternatives • Biases consideration of information • Creates a low probability of success due ignoring realistic alternatives, choosing illogical approaches and failing to plan for contingencies	• **Define clear decision-making rules and processes,** ensuring they are followed to maintain objectivity • **Encourage full participation** of all group members • **Utilize group processes** to generate a variety of options before sharing with the larger group • **Support debate** and productive conflict • **Examine all alternatives** • **Invite outside perspectives** • **Take time for major decisions**
Dunning-Kruger Effect The phenomenon where individuals with limited knowledge or competence in a domain overestimate their own ability.	• Leads to undervaluing the contributions of teammates • Underestimates the complexities of implementing improvements • Overvalues simplistic solutions • Makes poor decisions errors • Takes on tasks beyond their qualifications • Teams may have blind spots, struggle to foresee events • Discussions are not are not open-minded, nor evidence-based • Stagnation accompanies over-confidence of team members • Failure to recognize their shortcomings contributes to lack of motivation to improve or learn • Blaming prevents team from identifying root causes	• **Foster a culture of continual learning** • **Provide guidance** in how to seek regular, structured, personal feedback, helping individuals gain a clearer understanding of their competencies and areas for improvement. • **Encourage self-reflection** such as that developed through the IQI Academy's daily ***Teach-to-Learn*** practice. • **Promote team diversity and cross-training** helping individuals better understand their own relative strengths and weaknesses. • **Set clear competency standards**, providing guidance for self-evaluation • **Provide mentorship programs, p**airing less experienced team members with mentors, helping bridge knowledge gaps and adjust inaccurate self-assessments.

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Overconfidence Bias (similar to Dunning-Kruger effect) The tendency to hold a too-optimistic assessment of one's own abilities and the feasibility of plans.	• Underestimate the effort required to implement improvements • Overestimate one's skills, talents, or potential. • Leads to: - Conflicts - Faulty decision-making - Unproductive team dynamics • Resists feedback and constructive criticism • Makes risky decisions • Builds an environment contrary to team collaboration and innovation	• **Integrate Edward de Bono's *Six Thinking Hats*** into team discussion processes, encouraging "Black Hat" (Devil's Advocate) thinking at appropriate times • **Implement decision-making protocols** during the "Norming" Stage of Team Development that involve thorough analysis, consideration of alternatives, and risk assessment. • **Utilize available data and evidence**. Do not rely solely on intuition or gut feelings • **Ask**: *"What else do we need to learn?"* • **Encourage diverse perspectives** and the expressions of differing opinions • **Support challenging assumptions** • **Promote critical thinking** and questioning of team member's own beliefs and decisions • **Encourage humility,** supporting team members in acknowledging the limitations of their knowledge and expertise
Not Invented Here (NIH) Syndrome A form of bias that favors internal solutions and ideas over those from the outside, even when those external solutions might be more efficient or innovative.	• Resistance to accepting ideas, solutions, or technologies from external sources. • Presence of pride, fear of change, and a desire for control or ownership of ideas and projects • Underestimation of external expertise • Missed opportunities for growth and collaboration • Hinderance of progress • Limiting innovation • Creation of a closed environment • Restrictions of access to new knowledge and perspectives	• **Encourage teams to take ownership of change** to foster a sense of collaboration • **Ask team members to explain their objections** in detail • **Ask team members to consider different perspectives** • **Verify recognition and incentives** for applying existing solutions are not in place • **Rotate project teams and team members** to introduce fresh perspectives (CAUTION: Team member rotation returns teams to FORMING stage of Team Development)

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Availability Heuristic is a cognitive bias that influences the way people judge the frequency or probability of events based on how easily examples come to mind. Identified by psychologists Amos Tversky and Daniel Kahneman, this heuristic implies that if something can be recalled easily, it must be important or at least more common than alternatives not as readily recalled	• Prioritizing decisions based on issues or tasks from recent experiences or highly memorable events, rather than on a comprehensive analysis of all relevant information. • Overestimating risks associated with rare but memorable events, while underestimating more common risks that haven't occurred recently or as dramatically. • Proposing solutions or ideas due to top-of-mind, recent exposure, limiting idea generation and innovation: potentially overlooking better or more innovative options that are not as immediately recallable. • Evaluating performance or contributions based on the most memorable achievements or failures. Team leaders fail to have balanced view of all relevant performance contributors.	• **Apply an Understanding of Variation**, charting data over time, e.g., Process Behavior Charts. • **Utilize "Effective Record Keeping"** methods from *The Team Handbook*. • **Document predictions**, results and updated theories using PLAN-DO-STUDY-ACT (PDSA) learning and improvement cycles. • **Regular Reviews and Feedback**: Implement regular review sessions where decisions, risks, and opportunities are evaluated based on comprehensive data and feedback, rather than anecdotal evidence. • **Structured Decision-Making**: Use structured decision-making tools and frameworks that require consideration of all relevant factors, not just those that are top of mind. • **Diverse Perspectives**: Encourage the inclusion of diverse viewpoints and experiences to broaden the range of information and examples considered in decision-making processes. • **Encourage critical thinking and questioning** of assumptions • **Educate team members about cognitive biase**s, including the availability heuristic, so they can recognize and mitigate its influence in their own thinking and decision-making.

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Escalation of Commitment Persisting with a decision or course of action, even when it is found to be failing, due to the investment already made.	• Continuing a course of action even when no longer rational. • Missing opportunities and incurring further losses due to making "Not-in-our-best-interest decisions." • Remaining emotionally attached to decisions and courses of action. • Prevents teams from adapting or considering alternative approaches when faced with evidence that current methods are not effective.	• **Set predefined criteria for re-evaluation**. Answers to Q#2 of the 3 Basic Questions, "How will we know that a change is an improvement?" provide such criteria for re-evaluating previous decisions. • **Separate decision makers from previous decisions.** Using written predictions from PLAN of the PDSA cycle allows this separation without necessitating removal of decision makers from the team or rotating in new team members. • **Implement regular review and feedback loops** Use of Q#2 answers as well as PDSA STUDY review questions: *What was predicted? What happened that actually was predicted [documented before making changes]? What happened that was not predicted? How should we update our theory?* • **Encourage open communication and dissenting opinions:** Encourage team members to voice concerns and alternative perspectives without fear of retribution. This can help identify potential flaws or biases in decision-making processes early on. • **Foster an adaptive and learning-oriented culture.** Apply Deming's Point #5. Recall Dr. Deming's statement: "*I make no apologies for learning.*" Changing course is not a sign of failure but an intelligent response to new data. • **Implement a formal decision-making process** Use structured decision-making frameworks such as those outlined in the Nov. 2023 IQI Member Newsletter: - Choosing By Advantages Decisionmaking System (CBA) - Criteria Matrix - Multi-voting (n/3)

[i] W. Edwards Deming. The New Economics for Industry, Government, Education (p. 95). Kindle Edition.