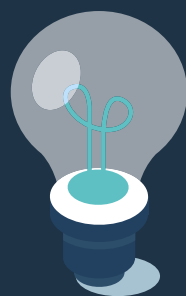


Beyond decision bias: making objective people decisions

How online assessments can give The US Army the information they need to overcome cognitive bias and make the best decisions about their people



Questionmark Viewpoint

March 2021

How can the United States Army avoid cognitive bias in its decision-making?

Tharon,

Thanks for taking the time to read this viewpoint white paper about how the United States Army can use assessments, training and certification to avoid cognitive bias; and thereby ensure fairer, more equal decision-making.

As an organization which makes diversity and inclusion a priority, I know this must be a major consideration for you. Tackling cognitive bias depends on challenging assumptions – and this white paper explains how gathering data through regular testing and assessment is a great way to reveal indications of cognitive bias, which may be blocking the way to a truly equal organization.

Questionmark can help you create the tools you need to assess the skills, attitudes and biases within your organization. Read on to find out:

- **How to spot the warning signs of cognitive bias, the implications it can have on your workforce, and how to avoid it**
- **How skills and attitude assessments of your workforce can give you the real and robust information you need to make good decisions**
- **How gathering this data can be used to weigh existing perceptions across recruitment, onboarding, development, promotions and more**

I hope you find this viewpoint white paper on training and assessment to avoid cognitive bias useful. When you're done, I'd love to hear your thoughts and talk to you about how Questionmark could work with the United States Army.

Kind regards,

Josh Gavin

Business Development Executive at Questionmark

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Introduction

The way that leaders make decisions has been studied and dissected like never before. Some academics argue that good decision making is a skill that can be developed. Others, that good judgment can only come from experience. Most pragmatists recognize that there is an element of both.

Business leaders understand the responsibility that sits on their shoulders. The decisions they make can determine the success and failure of the organizations they lead. This is especially true when it comes to the decisions they make about managing their people.

In the past three decades, a growing body of research has highlighted the dangers of 'cognitive bias' in decision making. Does the human brain cause us to ignore arguments that don't fit our pre-existing story? Are some people naturally inclined to favor the status quo? Does a temptation to 'conform to the tribe' make it difficult to challenge consensus?

Research on cognitive bias has long been discussed by leaders and decision-makers. At times, training has been introduced to combat it. Now more than ever, leaders can rely on a wealth of data sources to challenge assumptions. But inconsistent or unreliable data can lead to the wrong decision, costing time and money. The problem is far from solved.

This report demonstrates that cognitive bias remains a problem, even in a business environment that celebrates making data-driven decisions.

- It explores how this impacts the decisions employers make about the workforce
- It outlines strategies for tackling it
- It details how obtaining new information from online staff tests and assessments can help address the situation

Tackling cognitive bias depends on intentionally gathering information that challenges assumptions. Gathering further information, that causes leaders to question the conclusions of initial data analysis, is also crucial.

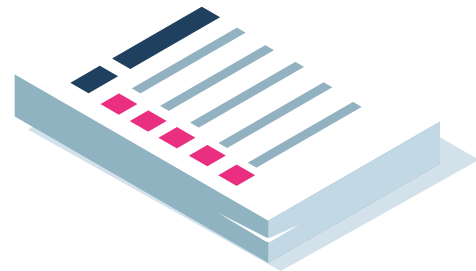
Too often employers lack reliable data on their most important asset, the people they employ.

Skills and attitude assessments of the workforce can give employers the real and robust information they need to make good decisions.

Assumptions can be challenged. Evidence of bias can be confronted. Strategies can be introduced to combat it. Further assessments show whether those strategies are working.

Questionmark Viewpoint

Questionmark Viewpoint is a series of white papers and reports that we produce to explore the challenges that our customers are facing, and which we help them address. These papers are based on what we are hearing from customers, and on research from other experts.



Cognitive bias: how it manifests in decision making

Leaders across different sectors and industries have become increasingly familiar with the concept of 'cognitive bias'. Without being consciously aware, a range of subconscious factors could be influencing decision making and contributing to costly mistakes.

In a series of ground-breaking articles for the Harvard Business Review Magazine, leading experts such as Max H. Bazerman, Amos Tversky and Richard Thaler have explained the forms that cognitive bias can take. They and other experts have set out strategies to help tackle the problem.¹

Cognitive bias has been observed in at least 16 different forms. From 'confirmation bias', whereby people instinctively stick to what they already believe, to 'self-serving bias' which risks decisions being influenced by what is best for the individual making the decision.²

The 16 different forms of cognitive bias

Cognitive Bias	Brief explanation
<i>Confirmation bias</i>	People view information through the filter of what they already believe.
<i>Conformity bias</i>	The inclination to agree with a group of people.
<i>Authority bias</i>	The tendency to agree with a leader or authority figure.
<i>Loss-aversion bias</i>	An aversion to taking risk through fear of losing.
<i>False causality bias</i>	Interpreting sequences as having a causal relationship without the evidence.
<i>Action bias</i>	An inclination to do something over nothing.
<i>Self-serving bias</i>	Favoring decisions that enhance self-esteem.

¹ <https://hbr.org/2011/04/ethical-breakdowns>

² <https://www.boardofinnovation.com/blog/16-cognitive-biases-that-kill-innovative-thinking/>

<i>Framing bias</i>	Being influenced by how information is presented rather than the information itself.
<i>Ambiguity bias</i>	Favoring options where the outcome is more knowable over those where it is not.
<i>Strategic misrepresentation</i>	Knowingly understating the costs and overstating the benefits.
<i>Bandwagon bias</i>	Favoring ideas that are already adopted by others.
<i>Projection bias</i>	Over-predicting that future tastes or preferences will match current tastes or preferences.
<i>Pro-innovation bias</i>	Novelty and 'newness' are seen as inherently good.
<i>Anchoring bias</i>	Being influenced by information that is already known or that is first shown.
<i>Status-quo bias</i>	Favoring the current situation or status quo.
<i>Feature positive effect</i>	Due to limited time or resources, people tend to focus on the 'good' benefits while ignoring the negative effects

Source: <https://www.boardofinnovation.com/blog/16-cognitive-biases-that-kill-innovative-thinking/>

Also, since this research 'found its feet' in the early 2000s, the world of work has undergone a seismic shift. Thanks to a range of digital tools, decision-makers have more access to data than ever before.

These empirical sources should perhaps provide enough information to challenge cognitive bias in whatever form it manifests.

Sadly, the solution is not so simple. Research of external sources and conversations with our customers reveal that, even in a world of data and information, important decisions are still vulnerable to factors that lie below the consciousness of the decision-maker.

Cognitive bias tends to manifest in three scenarios.

1) The belief that more information that is unnecessary

Every leader, at every level of an organization, will constantly rely on previous experiences, familiarity with the subject matter and gut instinct to make decisions. Indeed, very often the strength of their experience is why they are in their jobs.

People need to make countless decisions during a single working day. Is it possible to conclude a formal information-gathering exercise before each one? Even if it were, would it be productive?

Such an approach would cause simple problems to be over-complicated, and analysis paralysis would quickly grind the organization to a halt.

Given the volume of decisions that need attention, leaders will often conclude that they have enough information. They will judge that the tools they typically use to collect and understand data are sufficient.³

But when a decision is significant, greater information may need to be sought and considered. Or it may be that a series of decisions around the same area, such as how to help get the best out of the workforce, need to have a body of data to inform them.

The data that informs a decision should be reviewed and scrutinized. Scenarios should be mapped. Positive and negative consequences must be quantified.

Difficulties can arise when a decision is more significant than it might have initially appeared. In these circumstances, due time and process may not have been allotted to gather and analyze the necessary information and to review the different options. As a result, the decision is vulnerable to cognitive biases that have not been challenged by sufficient arguments and information.

³ <https://hbr.org/2013/11/deciding-how-to-decide>

2) Working to artificial deadlines

Some decisions must be made quickly. External circumstances may simply dictate a time frame that does not allow for seeking new information and arguments. Organizations may need to respond to an immediate crisis. A date for a product or service launch may be set in stone with a client or distribution partner.

But there are too many times when artificial circumstances cause people to make decisions more hastily than they should. For example, an employee may have to give a presentation to a superior and be reluctant to ask for more time.⁴ However, without seeking extra time, crucial information may not be factored in. The final decision could be vulnerable to cognitive biases and these could cause the wrong call to be taken.

While it may cause immediate disappointment and discomfort to ask for an extension, there are times when delay now could prevent failure in the future.

3) Understand the data selectively

'We know we can trust this decision. It's underpinned by robust data.' It's a common claim. But it's also a bold one.

When it comes to data analysis, team members may not be as objective as they believe. Several factors can cause people to emphasize certain aspects of the data or fail to proactively seek out others. These can include:

- **Maintaining the status quo** – human beings find safety in what they know. Many are unconsciously drawn to favor the status quo.⁵ If an aspect of the data confirms that 'carrying on as we are' has value, it may encourage observers to emphasize that point. Similarly, data reviewers may underplay the significance of information which points to the limits of the current approach.

⁴ <https://hbr.org/2013/11/deciding-how-to-decide>

⁵ <https://hbr.org/2006/01/decisions-without-blinders>

- **Follow the leader** – when the leader of a tribe states a view, it is common for people to recalibrate their perspective to match. Social scientists have called this ‘authority bias.’⁶ This is not as simple as people ‘saying the right thing to get ahead.’ It is part of a human tendency to listen to authority figures and align with their approach.
- **Follow the crowd** – when it is clear that a consensus is emerging, it can be difficult to challenge it.⁷ This can be a conscious thought process: ‘I’m going to stand out if I speak up.’ But it is often more subtle than that. Out of a desire to conform to the views of the tribe, people can genuinely convince themselves that they share the perspective of colleagues even when they don’t.
- **Being intimidated or overwhelmed by the data** – the more information that has been gathered, the more overwhelming it can feel. To protect people from that feeling, their brains may shut off their awareness to the parts of the data which do not conform to the story that already exists in their head.⁸

Spotting the warning signs

A range of initiatives can help identify whether cognitive bias is creeping into decision making. These can, and generally should, involve data collection exercises. However, there are early warning signs that indicate a problem is emerging.

Based on conversations across sectors and industries, we have identified five common ‘warning lines’. Phrases used in the workplace that could indicate a vulnerability to cognitive bias. In isolation, none of these means there is necessarily a problem. Each one may be appropriate at times. But regular reliance on such phrases should be scrutinized.

- a) ‘We tried that before. It didn’t work.’** – Everyone must learn from experience. There is little point in entertaining every enthusiastic idea of young colleagues when failure is the most likely outcome. But when this phrase becomes the standard response, alarm bells should ring.

⁶ <https://www.boardofinnovation.com/blog/16-cognitive-biases-that-kill-innovative-thinking/>

⁷ <https://www.boardofinnovation.com/blog/16-cognitive-biases-that-kill-innovative-thinking/>

⁸ <https://www.newyorker.com/magazine/2017/02/27/why-facts-dont-change-our-minds>

- b) ***'If it doesn't come off, we'll look really stupid.'*** – Let's be real. How individuals and teams are perceived internally matters. However, if fear of being shown up among colleagues hinders innovation, huge opportunities for growth could be missed.
- c) ***'It doesn't matter what we do – we just need to do something.'*** – Sometimes any action is better than nothing. However, activity for the sake of it often means that the time has not been taken to make the best decision.
- d) ***'If it worked for them, it'll work for us.'*** – Emulating the success of competitors is desirable. But an assumption that all the variables and circumstances are identical must be challenged.
- e) ***'If it's good enough for the boss, it's good enough for me.'*** – The boss is generally the boss for a reason. Their judgment should be trusted and respected. But that's not the same as following in blind faith. The most effective decision-makers welcome challenge.



Cognitive bias in people making decisions

No team, business process, or job role is immune from cognitive bias. It can have a profound impact on the decisions that employers make around managing the workforce.

- **Recruitment** – a growing body of evidence is revealing the problems of ‘unconscious bias’ in job interviews.⁹ Without realizing it, interviewers could make decisions based on factors other than who is best for the job. This will create problems in a world where intellectual diversity is required to drive innovation.
- **Onboarding** – before even meeting a new starter, colleagues may have formed an impression of them. There is now a growing awareness of assumptions made based on factors such as race and gender.¹⁰ Other factors could be even more subtle. For example, a line manager may assume from a new starter’s previous experience that they will have acquired a skill that has not yet been developed. This can create confusion in the early stages of a new recruit’s time with the employer.
- **Training** – while employers spend \$130 billion on learning and development programs across different industries globally, research shows that only 25% of it is effective.¹¹ Assumptions can be made about what training workers need or what they will already have completed. This can be based on the needs of people who were in similar roles and can be particularly troublesome during times of great change.
- **Promotions** – while there are always challenges to recruiting externally, promoting from within is far from straightforward. There are concerns across sectors that the right people are not being promoted. It could be as simple as a decision-maker not particularly liking a colleague. Or it could be that, without realizing it, they believe their team member is so effective in their current role they are scared to move them.¹² This is an example of ‘status quo bias’.

⁹ <https://www.forbes.com/sites/pragyaagarwaleurope/2019/02/20/how-to-minimize-unconscious-bias-during-recruitment/#7816f16f5fd9>

¹⁰ <https://www.linkedin.com/pulse/unconscious-bias-onboarding-program-must-have-monika-navandar>

¹¹ <https://trainlikeachampion.blog/infographic-why-corporate-training-is-a-colossal-waste-and-what-to-do-about-it/>

¹² <https://www.linkedin.com/pulse/promotion-denied-reason-exceptional-performance-anthony-chaine>

Four strategies for overcoming cognitive bias

Leaders must constantly review how they come to conclusions. No one 'silver bullet' can eliminate the risk of cognitive bias. There is no guaranteed formula for excellent decision making. However, employers can introduce several strategies to address many of the common problems.

These four strategies have proved effective for many of our customers.

1) Diagnose the decision

Not every decision can be subject to a lengthy information gathering process. Leaders must frequently make calls throughout the working week and must rely on their instinct and experience. But how can they discern which decisions require more thought? How can they know whether the knowledge they have is likely to be sufficient?

When making decisions, employers should get into the mindset of quickly quantifying the ramifications of a decision. What are the implications? How does the decision impact the wider strategy? Were there similar occasions when a decision had implications beyond what seemed like its immediate scope? When seen through this prism, it can become easier to detect which dilemmas require more detailed dissection.¹³

By 'diagnosing the decision' and estimating the extent of its impact, leaders can make a realistic call on whether more time should be given to challenge any cognitive bias which could occur in the process.

2) Be intentional about identifying 'critical friends'

Countless errors in decision making arise because, early in the process, teams and individuals form a narrative around the situation based on limited data. Contradictory data is typically not sought. If new information emerges which challenges the prevailing narrative it is too often dismissed.

¹³ <https://hbr.org/2013/11/deciding-how-to-decide>

By intentionally giving people the task of challenging the status quo and the emerging consensus, senior leaders are more likely to be presented with all the alternatives when making big decisions. Critical friends should proactively seek information and arguments that will challenge the consensus.

In many organizational cultures, people are subtly penalized for taking a contradictory approach. But by being intentional about seeking disagreement, a wider pool of data is likely to inform the decision-making process.

Max H Bazerman has called people assigned to this task ‘the devil’s inquisitors’.¹⁴ While this is unlikely to be language employers wish to use, it illustrates the importance of reviewing a decision from different perspectives.

3) *Intentional individualism*

A spontaneous ‘meeting of minds’ is often seen as a successful outcome of a group discussion.

But too often a consensus has emerged too quickly and for reasons of tribal loyalty rather than robust scrutiny of the available information.

When making big decisions, leaders should ask team members to review the information and submit their first thoughts or opinions in advance. This can help secure a greater diversity of opinion.

When more perspectives are presented, it can be easier to determine what information is missing and which aspects of the decision require closer inspection.

4) *Leader speaks last*

When the leader is the first to present a viewpoint, there is a strong chance it will not be robustly challenged. Even when that leader is genuine in wanting debate.

¹⁴ <https://hbr.org/2006/01/decisions-without-blinders>

A leader is more likely to be presented with a range of perspectives on the available information if they have not already stated their opinion. While this will not be possible in all instances, it is often sensible for a leader to listen before they speak.



Tackling cognitive bias with online assessments

Gathering robust information is at the heart of overcoming cognitive bias in decision making. While employers often have access to a rich range of data sources, they too often lack robust information on their most important asset, the people they employ.

By regularly testing the workforce, employers can gain the crucial data they need to make effective people decisions. Such information can be used to weigh existing perceptions, challenge orthodoxies and cast a light over cognitive bias.

- **Detect cognitive biases** – by assessing attitudes across the organization, employers can get a good understanding of where cognitive bias is hampering decision making. It can show which aspects of bias are present in different teams. Interventions can be tailored to help reduce the problem and encourage better decision making.
- **Reduce bias in the recruitment process** – by testing candidates before deciding to hire them, employers can gain robust information on which potential recruit has the skills to hit the ground running and the aptitude to thrive. Impressions gained during interviews can be sense-checked. Subtle or unconscious biases can be challenged.
- **Create a relevant onboarding program** – assessments can pin-point what support a new starter will need to thrive. They make it clear what aspects of knowledge someone already possesses and where additional training and support should be focused. By gaining an objective read of the recruit's starting point the risk of early confusion is reduced.
- **Ensure the right people are promoted** – by assessing existing team members, employers gain an objective read on which employees have the skills to progress to the next level. Where necessary, internal certification programs can be introduced to illustrate which team members are making progress toward a development goal. This empirical data allows decision-makers to sense check any cognitive bias which may be clouding their judgment.
- **Create individual training plans** – due to the growth in online training, employers have an opportunity to facilitate learning and development that is tailored to an individual's needs. But too often, assumptions are made as to what skills they need to develop. Assessments reveal exactly what skills are missing and where an employee's strengths

lie. Employers can create individual training plans. This increases engagement. Wasting money on unnecessary training can be avoided.

- **Data literacy** – sometimes data is not effectively scrutinized simply because it is not understood. This can apply to leaders at every level of the organization. Assessments can reveal the levels of data literacy across teams and business functions. Employers can introduce training to develop better data interpretation skills. Further assessments can show whether the training has worked.



Conclusion

Cognitive bias remains a problem. Anyone looking for a 'silver bullet' solution will be disappointed. The problems created can have a detrimental impact on the decisions leaders make around managing the workforce.

By intentionally addressing the problem, many organizations have improved their decision making. This means seeking information that may challenge assumptions and create healthy disagreement.

Staff assessments are a crucial means for employers to gather this information about the people they employ. Doing so can transform recruitment and onboarding. It can ensure the right people are promoted and that the money invested in training is well spent. It can also reveal where attitudes that may indicate cognitive bias lie within the organization.

We have worked with businesses and organizations around the world, helping them secure the data from assessments that can transform decision making. If you would like to begin a conversation about how we can help, please get in touch.

Can we help?

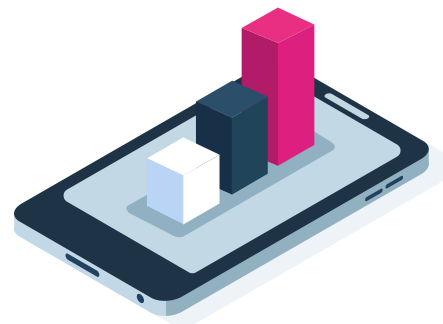
I hope this white paper has been useful and given you some valuable insight about how the United States Army can work towards overcoming cognitive bias. Please do get in touch with me by phone or email to find out more about how we can work together.

Josh Gavin

Business Development Executive at Questionmark

+44 (0)207 561 5307

josh.gavin@questionmark.com



question mark

About Questionmark

We help organizations and their people unlock their potential to deliver better performance.

Questionmark provides a secure enterprise-grade assessment platform and professional services to leading organizations around the world, delivered with care and unequalled expertise. Its full-service online assessment tool and professional services help customers to improve their performance and meet their compliance requirements. Questionmark enables organizations to unlock their potential by delivering assessments which are valid, reliable and fair, which can be defended.

Questionmark offers secure powerful integration with learning management systems (LMS), learning record stores (LRS) and proctoring services making it easy to bring everything together in one place. Questionmark's cloud-based assessment management platform offers rapid deployment, scalability for high-volume test delivery, 24/7 support, and the peace-of-mind of secure, audited U.S., Australian and European-based data centers.

Working with Questionmark

To further explore how Questionmark could work for your organization, or to book a free consultation and demo, please see: <https://www.questionmark.com/request-demo/>

Questionmark

United States

35 Nutmeg Drive
Trumbull, CT 06611

Tel: (800) 863-3950

Fax: (800) 339-3944

info@questionmark.com

Questionmark

United Kingdom

Moor Place, 1 Fore Street
London, EC2Y 9DT

Tel: +44 (0)20 7263 7575

Fax: +44 (0)20 7263 7555

info@questionmark.co.uk

Questionmark GmbH

Germany

Hopfenstr. 8,
80335 Munchen

Tel: + 49 (0) 89 220 61272

info@questionmark.de

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