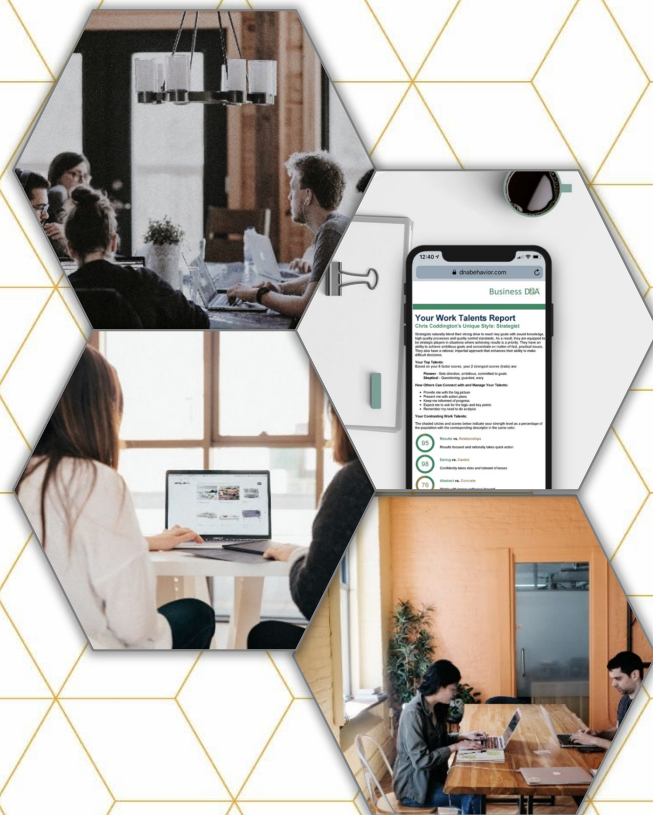


# Conducting a Behavioral Variability Study



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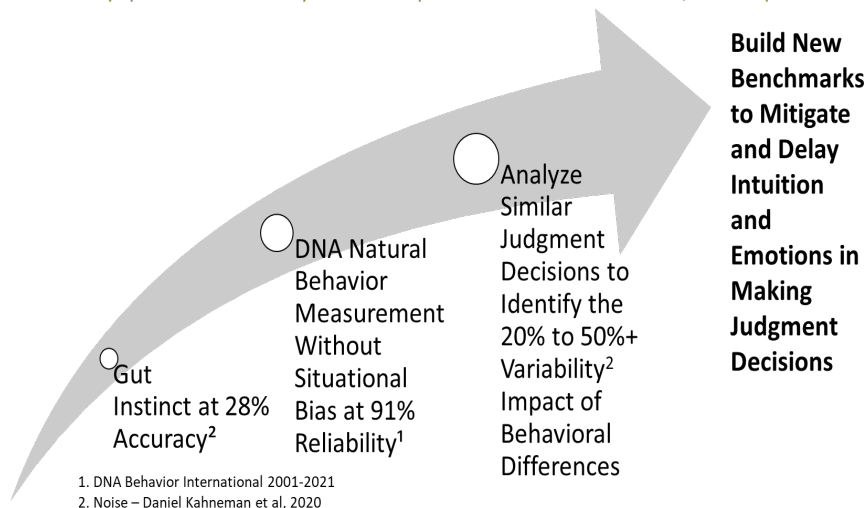
1. The focus of a Behavioral Variability Study (which can be more harshly termed as a Noise Audit) is to identify and statistically measure the prevalence of Bias and Noise in your organization. In essence, the business unit should be told that the intent is "the organization is interested in how decision-makers reach their conclusions."
2. The Behavioral Variability Study will involve having multiple judges or decision observers assess the same fictitious problems, and/or performing a review of past decisions to observe and measure the Variability in assessments which constitute variable errors.
3. A formalized study will provide valuable insights about biases, blind spots and specific deficiencies in processes and the training of employees and how they are supervised. A successful study should stimulate operational changes in your organization.
4. The resistance to a Behavioral Variability Study will be that it is potentially embarrassing to question the judgments of experts and given their own confidence the experts will have you believe they are infallible.
5. Further, the leaders of the organization must be prepared to accept the results and act on them. This is where leaders will get a shock that the decisions of their best professionals may differ in a range of 30% to 70% with an average somewhere between 45% to 50%. This is against the known expectation leaders have that the variance would be 10% to 15%.

A Behavioral Variability Study is intended to uncover and measure the variability in decisions within your organization, estimate the cost and provide strategies for improving decision-making processes.

The behavioral variability can be 5 times greater than what your leaders think it is.

## Transactional Study of Judgment Decisions

Using the DNA Discovery Systems and Data Analytics to Identify What Intuition Cannot Measure, See or Explain



## The Behavioral Variability Study Team

6. The people on the Behavioral Variability Study team should be the following:
  - a) The internal or external consultant leading the program.
  - b) Project team – made up of external consultants and internal people, so there is internal project ownership. The team should have data collectors, analysts and subject matter experts (SME) who construct the cases for Judges to assess. Everyone should have high professional credibility.
  - c) Leadership must be involved early with a high degree of buy-in, but they need to be open-minded about Noise, curious about the results, and commit to remedy the situation.
  - d) Judges – there needs to be an expert panel of "judges" who make similar decisions for the business division, which is being reviewed
  - e) Project manager - who is high level enough to overcome administrative hurdles and blockages – someone who facilitates making it happen.

## Study Design and Management

7. Construction of case materials by the SME's is critical. The "input" to the study drives the output which will be heavily scrutinized. Given the high cost of doing a Behavioral Variability Study, it is key that management be prepared to reduce the Noise if it is at a high enough level.
8. Real cases can be used by simplifying them to the key issues and then making judgments.
9. Provide a questionnaire for each case to provide a deeper understanding of the reasoning:
  - a) Include open questions about the key factors that led the participant to their response.
  - b) A list of the facts of the case, allowing importance to be rated.
  - c) Call for an outside view by having the participants rate how much above or below the case is compared to all valuations for the same category.
10. Schedule a pre-launch meeting to brief company execs on the process and ensure there is engagement, and to get their expectations about the results, including:
  - a) What level of disagreement do you expect between a randomly selected pair of answers to each case?
  - b) What is the maximum level of disagreement that would be acceptable from a business perspective?
  - c) What is the estimated cost of a wrong judgment in either direction?
11. Confidentiality of individual answers is important and should not be known to anyone. Data should be kept anonymous.
12. The judge's should complete the exercise simultaneously and independently – no communication with each other.

13. The project team manages the statistical analysis – analyzing the level of Noise and also biases. Then looking at the factors which influenced the judge's decisions, particularly focusing on extreme responses.

## Organizational Re-Design

14. The next step is for the project team to build the processes and procedures for:
  - a) Implementing decision hygiene and
  - b) De-biasing to improve judgment and decisions made in the business unit.

15. The right level of Noise is Zero – but to achieve that balance, could be costly.

16. The cost-benefit of reducing Noise needs to be weighed up, followed by careful consideration to the issue of an objective approach versus individualized consideration.

17. There is also the risk and limitations of algorithms versus that of a human decision.

Algorithms can potentially be programmed with biases (intentionally or unintentionally due to design or based on incorrect or sub-optimal data. This is where a digital twin (or decision-making clone or cobot) offers the benefit of comparing an algorithm based on the benchmark (average) of the best judges versus human judgment.

18. Humans value their judgment because it is more discerning, nuanced, and relies on values people want to heed. For instance, mercy is a human quality no one wants to replace or eliminate. Further, no one wants to de-humanize an organization and squash creativity.

19. However, if the Noise leads to irredeemable unfairness, then it is best to implement noise reduction methods even if there is no total reliance on algorithms.

The right level of Noise is zero. However, to achieve that could be costly and risk de-humanizing an organization. However, finding the right balance between algorithms and human judgment is important.

## The Opportunities from Reducing Noise

1. Algorithms would replace or supplement human judgment.
2. People would breakdown complex judgments into simpler mediating assessments.
3. There would be decision hygiene.
4. Independent judgments would be elicited and aggregated.
5. Meetings would be more structured.
6. An outside view would be more systematically integrated into the decision process.
7. Overt disagreements would be more frequent and more constructively resolved.
8. The capability to formulate decisions that are more broadly accepted and actionable (an organizational culture with increased buy-in).

# DNA Behavior®

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