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Unit 5

The Analysis Phase

Introduction to Structured Analytic Techniques

MASSIVE OPEN ONLINE COURSE (MOOC)

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ANALYST - A New Advanced Level for Your Specialised Training

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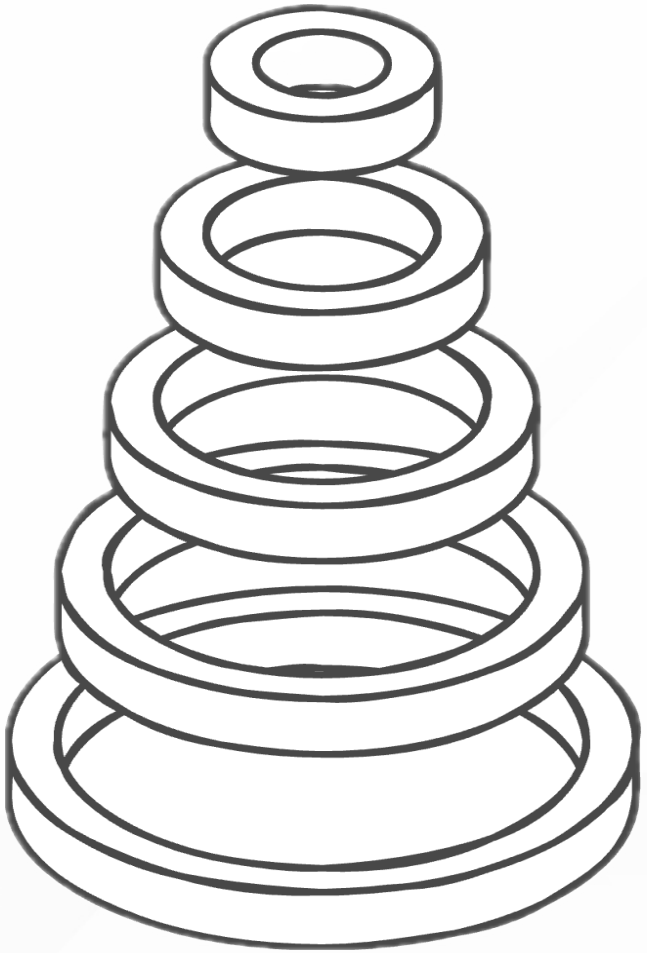
Learning objectives

- Understand the role of analysis in the corporate intelligence cycle.
- Recognize and mitigate common cognitive biases.
- Apply Structured Analytic Techniques (SATs) to improve clarity and rigor.
- Assess evidence quality and challenge assumptions effectively.
- Use tools like ACH and indicators for structured, forward-looking analysis.
- Integrate SATs with visual tools and quantitative models.
- Practice SAT workflows to detect risks and support strategic decisions.



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Why Analysis?

➡️ From Facts to Foresight

Business intelligence is only as powerful as the analysis that stitches isolated facts into a forward-looking narrative.
Without it, leaders face an avalanche of data and a drought of insight.
Structured analysis filters noise, highlights what truly matters, and turns ambiguity into actionable foresight.
Skipping this step means hidden risks, missed inflection points, and strategy dictated by guesswork.

Good analysis transforms data overload into confident decisions.

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Cycle in context

🔄 Analysis in the Corporate Intelligence Loop

The corporate intelligence cycle mirrors the classic four-phase model (Direction, Collection, Analysis, Dissemination) but timelines are compressed and outcomes tied to ROI.

Analysis becomes the engine that converts raw feeds (OSINT, CRM numbers, HUMINT from suppliers) into concise guidance for marketing, risk, and C-suite teams.

Fail here, and the entire loop stalls.

Structured analysis keeps intelligence output synced with real business priorities.

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Mind traps

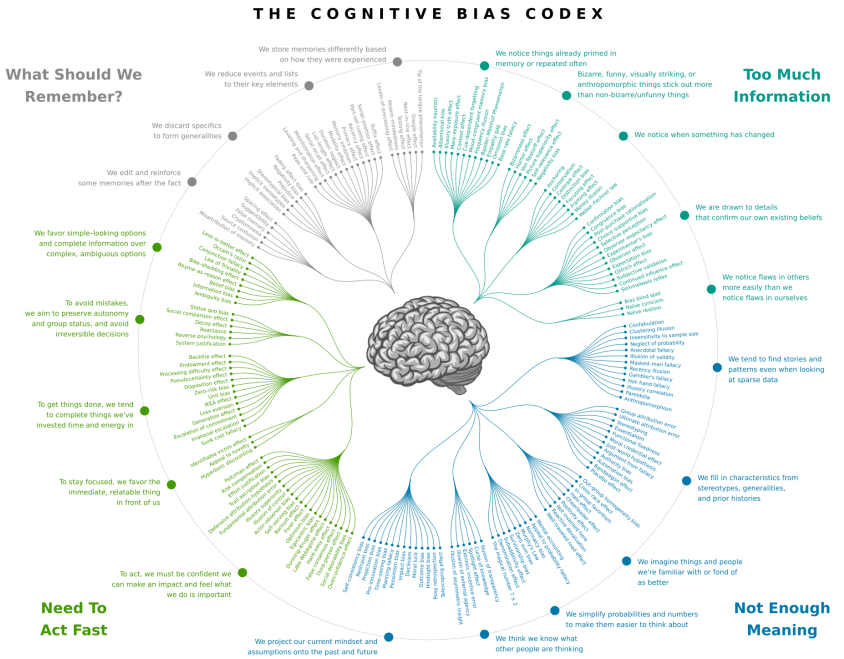
Cognitive Biases: The Invisible Saboteurs

Confirmation, anchoring, availability, sunk-cost.

These shortcuts creep into analysts' reasoning, especially under time pressure.

They silently narrow perspective and inflate certainty.

Unchecked, they steer findings toward the comfortable answer instead of the correct one.



https://en.wikipedia.org/wiki/Cognitive_bias#/media/File:Cognitive_bias_codex_en.svg

Manage bias proactively, or bias will manage your conclusions.

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Critical lens

🧠 Critical Thinking = Meta-Thinking

Critical thinking combines a disciplined process with a meta-process: it not only analyzes a problem but also reflects on how that analysis is being carried out.

The meta-process involves systematically applying standards like clarity, accuracy, and depth to every step of reasoning.

When practiced rigorously, this approach helps uncover weak logic and hidden assumptions, before they solidify into perceived "truths."

Quality of reasoning determines quality of intelligence.

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Toolbox view

🛠️ Structured Analytic Techniques

Structured Analytic Techniques (SATs) are documented, repeatable methods that help reduce cognitive bias and add structure and transparency to the analytical process. They support clearer thinking and more defensible judgments, especially under conditions of uncertainty.

There are more than 50 recognized SATs, grouped into four main families: Basic, Diagnostic, Contrarian, and Imaginative. Each category responds to different analytical needs—from organizing fragmented evidence, to testing assumptions, challenging prevailing views, or imagining alternative outcomes.

SATs don't replace experience or expertise, but they provide a framework that helps analysts think more critically and communicate more effectively.

> The right SAT turns a vague hunch into a defensible assessment.

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Evidence audit

✓ Quality-of-Information Check

Before modelling the future, it's crucial to validate the present. Analysts must assess how reliable the sources are, how credible the evidence is, and how relevant it is to the intelligence question.

The QIC matrix (standing for Quality, Integrity, and Credibility) offers a practical way to visualize and evaluate these factors. It helps identify weak evidence, information gaps, and potential risks in the reasoning chain.

In an era of deepfakes and widespread misinformation, this step protects the integrity of the analysis and ensures that forward-looking assessments rest on a solid, verified foundation.

Strong conclusions need strong evidence. Grade it before you use it.

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Assumption scan

🔍 Key Assumption Check

Listing, testing, and scoring each underlying assumption is a crucial step in preventing strategic surprises. By examining how valid each assumption is (and how much it influences the final judgment) analysts can uncover hidden weaknesses in their reasoning.

This process forces a confrontation with foundational beliefs that often go unquestioned. Some assumptions may no longer hold true due to changes in the environment, technology, or competitive landscape. Identifying and challenging these outdated premises can lead to more accurate assessments and even inspire innovative strategic thinking.

In intelligence work, especially when stakes are high, regularly stress-testing assumptions is not just good practice, it's a safeguard against blind spots.

Challenge your bedrock beliefs before the market does.

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Hypothesis duel

⚔️ Analysis of Competing Hypotheses (ACH)

Analysis of Competing Hypotheses (ACH) turns traditional thinking on its head. Instead of looking for evidence that confirms a favored explanation, analysts deliberately search for disconfirming evidence across a range of mutually exclusive hypotheses.

Each piece of evidence is tested against every hypothesis, and the goal is to identify inconsistencies, where the evidence does not fit. By focusing on contradictions rather than confirmations, ACH reduces the risk of bias and premature conclusions.

In the end, the hypothesis that withstands the most scrutiny (the one with the fewest contradictions) is considered the most robust. This structured approach promotes objectivity, especially in complex or high-stakes scenarios.

Let evidence compete - crowning a winner too early is self-sabotage.

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Indicator mindset

🚦 Early-Warning Indicators

Turning analytical judgments into observable, measurable signals is a key step toward actionable intelligence. By identifying concrete indicators (such as sudden hiring spikes, changes in supply chains, or new regulatory filings) analysts create a system for real-time monitoring of future developments.

These indicators are defined during the analysis phase and linked directly to specific scenarios or hypotheses. Once identified, they can be tracked using dashboards or automated tools, offering early warnings when key trends begin to shift.

This approach transforms static analysis into dynamic foresight, giving decision-makers precious lead time to respond before risks materialize or opportunities are lost.

Insight ages fast; indicators keep it alive and actionable.

Devil's Advocacy & Red Teams

Contrarian techniques are designed to create structured dissent within the analytical process. Rather than avoiding disagreement, they deliberately introduce it to challenge prevailing views and uncover hidden weaknesses.

A Devil's Advocate critically examines the favored judgment, actively looking for flaws, inconsistencies, or overlooked alternatives. A Red Team, on the other hand, steps into the mindset of a competitor or adversary, viewing the situation from an entirely different angle.

This kind of controlled friction (managed and purposeful) helps reveal blind spots, question groupthink, and pressure-test assumptions. It's a cost-effective way to surface risks and alternatives before decisions are made, and far less expensive than learning through real-world failure.

Invite dissent early-corrections later cost magnitudes more.

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Creative leap

Imaginative Techniques for Disruption

Techniques like Brainstorming, Scenario Planning, Morphological Analysis, and Cross-Impact Matrix are designed to stretch analytical thinking beyond the obvious, exploring a wider range of plausible futures. Their goal isn't to predict the future, but to prepare for uncertainty by imagining how different variables could interact.

What sets these imaginative techniques apart is their structure. They guide creativity in a disciplined way, preventing it from drifting into speculation or fantasy. Each method provides a framework that links alternative futures back to the intelligence needs of decision-makers.

By expanding the space of possibilities while staying grounded in relevance, these tools help organizations become more adaptive, resilient, and forward-looking.

Creativity plus discipline = strategic foresight, not day-dreaming.

↔ Issue Redefinition – Better Questions

Issue Redefinition is a technique that sharpens the focus of an intelligence task by reframing the original request. Rather than taking the question at face value, analysts paraphrase it, explore it from multiple perspectives, and apply successive rounds of "Why?" to uncover the core issue behind the demand.

This process often reveals hidden assumptions, vague wording, or underlying concerns that were not initially obvious. By clarifying what truly needs to be understood, Issue Redefinition ensures that collection efforts are more targeted and efficient.

It also helps analysts choose the most appropriate Structured Analytic Techniques for the task at hand, aligning methods with the real analytical challenge - not just the one that was first asked.

Well-shaped questions halve the work and double the insight.

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Visual logic

Pattern & Link Analysis

Tools like chronologies, activity matrices, and link charts help transform messy, unstructured data into clear visual narratives. They organize complex information, such as timelines, interactions, and relationships, into formats that make patterns easier to see and interpret.

A chronology maps events over time, an activity matrix captures actions across actors and dates, and a link chart reveals who interacted with whom, when, and for what purpose. When used together, they provide a visual foundation that brings order to chaos.

These visuals don't just summarize data, they spark insights. Patterns, gaps, and anomalies often emerge that would remain hidden in text, guiding analysts toward new hypotheses and areas that deserve deeper investigation.

A picture can reveal the hidden structure in a thousand data points.

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Quant meets qual

Integrating Quantitative Models

Structured Analytic Techniques (SATs) are not a substitute for data science, they are a complement. While forecasting models provide quantitative, probabilistic baselines, SATs introduce the qualitative depth needed to interpret those outputs within real-world complexity.

Techniques like Analysis of Competing Hypotheses (ACH) or the use of Indicators bring in structured reasoning, critical thinking, and scenario stress-testing. They help analysts question model assumptions, consider alternative explanations, and assess what signals would confirm or challenge a given forecast.

By combining statistical rigor with analytical creativity, this hybrid approach offers a more complete, 360-degree view, blending data-driven insights with human judgment to better support strategic decision-making.

Blend numbers with structured judgment for comprehensive insight.

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Live case

🚀 Spotting a Market Disruptor

A powerful way to apply Structured Analytic Techniques (SATs) is through a simple five-step blend. First, redefine the issue to ensure the intelligence question is clear and focused. Second, collect diverse and high-quality data from multiple sources. Third, check and challenge key assumptions to surface hidden biases. Fourth, run an Analysis of Competing Hypotheses (ACH) to rigorously test alternative explanations. Finally, set observable indicators to monitor how the situation evolves in real time.

Using this structured approach, an analyst could, for example, detect early signs of a low-cost SaaS entrant gearing up to undercut current market pricing—giving leadership valuable time to adjust strategy before the disruption hits.

Combining techniques turns analysis into strategic early warning.

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Wrap-up

✅ Process-Driven Insight

Structured Analytic Techniques (SATs) are designed to channel expert judgment through a series of disciplined steps. They guide analysts in grading the strength of evidence, surfacing and testing hidden assumptions, challenging consensus views, envisioning plausible alternatives, and linking insights to observable indicators.

Rather than replacing intuition or domain knowledge, SATs structure it, making the reasoning behind judgments more transparent, repeatable, and accountable. When embedded into daily analytical workflows, they not only improve clarity and rigor but also strengthen the overall defensibility of intelligence products.

In complex and fast-moving environments, this structure becomes a strategic advantage.

Method beats intuition, structure makes smart people consistently smart.