



# Overcoming Analytic Mindsets: Five Simple Techniques

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Postmortems of virtually every major intelligence failure over the past two decades have identified ingrained analytic mindsets as a key contributing cause. This should not be surprising because past experience (as well as extensive research in the field of cognitive psychology) has demonstrated that analytic mindsets are easy to form and extraordinarily difficult to overcome. If the analyst is lucky and has happened on the correct mental mindset, the result will be a speedy and accurate outcome. It is far more often the case, however, that the initial analysis is based on first impressions, partial information, and sometimes faulty assumptions. This weak foundation then gradually gains credence as analysts encounter more data that reinforces their mindset. In some cases, analysts will actively mold the new data to make it consistent with their emerging conceptual framework. When such key assumptions and critical data are not challenged, the result at best is poor analysis; at worst, it becomes the explanation for why we have stumbled into another major intelligence failure.

Given time pressures, it is easy for an analyst to jump to conclusions and not even realize that he or she is headed down the wrong path until it is too late. In fact, as more information becomes available, the analyst is increasingly inclined to select that which supports his or her lead hypothesis (or theory of the case) and to ignore or reject information that is inconsistent with the lead hypothesis. Contradictory information quickly becomes lost in the noise only to be rediscovered at the time of the postmortem. Usually the more important or politically significant an issue becomes, the greater the pressure to generate a finished product. In such an environment, it is the rare supervisor who argues that one must take the extra hour, day, or even week to challenge key assumptions and review the quality of the data to ensure that “we got it right.”

Past experience shows that it is exceedingly difficult to overcome the tendency to reach premature closure and embrace “groupthink” unless the analyst employs a specific tool or technique. Simply sensitizing analysts to the variety of analytic traps they are most likely to encounter rarely prevents them from falling into analytic traps. Analysts need to employ specific tools that help them:

- Challenge key assumptions.
- Identify and overcome mental mindsets.
- Structure substantive uncertainties.
- Generate alternatives.
- Reduce the chance of surprise.

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Techniques that help analysts challenge their assumptions and think critically about their evidence and conclusions have been around for a long time, but generally have not been integrated into the basic analytic process. This paper asserts that if five techniques in particular had been employed, most of the most major intelligence and policy failures experienced over the past two decades could have been avoided. The five techniques are:

- Key Assumptions Check
- Devil's Advocacy
- Quadrant Crunching
- Analysis of Competing Hypotheses
- Deception Detection

A **Key Assumptions Check** is rarely done, but is easily accomplished. All that it requires is that the analyst writes down the key assumptions that underlie his or her analysis. Most analysts complain that the exercise is feckless because everyone knows what is being assumed. The counter argument is that the process of literally writing down one's Key Assumptions (or listing them on a whiteboard) forces analysts to think critically about each assumption. Most assumptions will stand up to such scrutiny. Invariably, however, a few start to fall apart, transforming themselves from Key Assumptions to Key Uncertainties. Another advantage of this technique is that while some assumptions are mostly correct, the process forces the analyst to consider under what circumstances they might not hold up, thereby sensitizing them to data they otherwise might have ignored.

**Devil's Advocacy** is best done as an internal, in-house process that provides a sanity check just before the analyst is ready to go "prime time." In the law enforcement community, the cost of not doing a solid Devil's Advocacy can quickly become evident when the Defense Attorney mounts his or her case. In the intelligence analysis business, a Congressional committee or a Blue Ribbon Commission is certain to conduct Devil's Advocacy if the analyst fails at this task and a major intelligence failure occurs. One of the greatest obstacles to doing Devil's Advocacy is that an analyst cannot conduct Devil's Advocacy on himself. A fresh set of eyes is needed to challenge an assumption, question groupthink, or notice inconsistent data. Devil's Advocacy is essential in those cases when "we can't afford to get it wrong."

With the emergence of the Global War on Terrorism as our nation's preeminent security concern, one of the greatest challenges analysts face is anticipating the unanticipated. **Quadrant Crunching** has proved to be a highly efficient and effective technique for generating an extremely broad set of alternatives when faced with very little data and high degrees of uncertainty. The technique is adapted from Alternative Scenarios forecasting

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and is extremely useful for discovering “unknown unknowns.” The primary benefit of the technique is that it helps analysts, policymakers, and military decision makers set priorities and generate specific sets of field requirements in response to highly ambiguous threats. The technique helps analysts think through how such an attack would be launched, what the most likely targets would be, and what signposts or indicators would suggest that a specific attack is in the early stages of implementation.

The **Analysis of Competing Hypotheses** (ACH) technique initially was developed to support counterintelligence investigations, but over time it has proved to be a highly effective analytic tool, especially when there is a robust flow of data to absorb and to evaluate. It is well-suited for dealing with technical issues in the chemical, biological, radiological, and nuclear (CBRN) arena. ACH is particularly helpful when an analyst should consider the potential for denial and deception. The technique’s most distinguishing characteristic is that it focuses attention on critical evidence that tends to weaken rather than to confirm a stated hypothesis. Instead of building a case for the most likely hypothesis, the analyst uses the tool to eliminate hypotheses until only the most likely explanation is left standing. The ACH software can be obtained for free at [www.pherson.org](http://www.pherson.org).

Most analysts know not to assume that everything that arrives in their in-box is valid, but few know how to factor such concerns effectively into their daily work practices. The **Deception Detection** checklists provide analysts with a ready framework for determining whether deception should be a concern and whether deception may actually be present. The key is not to ask oneself “the deception question” for every item of information that crosses one’s desk but for those reports that drive the analysis and would dramatically change the conclusions should the reports prove inaccurate. With such checklists in hand, analysts are able to address deception issues with a higher degree of confidence.

For more information on how to use these techniques, please email one of the Pherson Associates at [publications@pherson.org](mailto:publications@pherson.org).