Analysis Lessons Learned the Hard Way

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The nation that will insist upon drawing a broad line of demarcation between the fighting [person] and the thinking [person] is liable to find its fighting done by fools and its thinking by cowards.

—Lieutenant General Sir William Francis Butler, 1838–1910
Irish, British Army officer, and historian

Introduction

The "so what" of this quarter's column is to share lessons learned from successful intelligence professionals to help inform you of some pitfalls to avoid and some best practice techniques to consider when performing intelligence analysis. The wording of the lessons may differ from U.S. Army doctrinal descriptions and be less elegant than in a host of cognitive psychology publications. The frank section headings are intentional to support long-term retention of the information and its application. These lessons and best practices come from successful operations or intelligence leaders and staff personnel. The sources of these lessons include an Army specialist operating an intelligence terminal in a joint operations center during "the surge" in Afghanistan, a brigade commander mentoring an S-2 during a combat training center rotation, and a general officer mentoring future military intelligence (MI) personnel receiving professional military education.

Read

MI professionals graduate their respective training courses possessing a baseline of knowledge and skills. Successful analysts build upon their initial knowledge, skills, and abilities through continuous self-development to improve the speed, accuracy, and reliability of their analytical conclusions. To become a good analyst, you have to read and be conversant in Army, and often joint, doctrine. It is okay to admit that we do not read as much doctrine as we should. I often begin lessons learned discussions with large groups of MI professionals by asking for a show of hands from those who have read the Army's foundational doctrine for operations, fires, and intelligence. While more hands are raised at the mention of *intelligence* doctrine, it is *operations* that most depends upon our analysis. Intelligence support to operations remains our paramount focus at the tactical level. Doctrine provides the foundation upon which we form and provide the results of intelligence analysis to the commander, regardless of operational level or echelon. For those serving as analysts in specialty or functional organizations (aviation, artillery, air defense, cyber/signal, sustainment, military police, etc.), you should understand the doctrine of the warfighting functions you support. A general officer exemplified the importance of this lesson by challenging a room full of MI field grade officers to understand operations doctrine better than the operations officer. Doctrine also provides the key to understanding the Army's universal language codified in its operational terms and military symbols. At the next lessons learned engagement, I hope to see an oasis of raised palms when I ask who has read ATP 2-33.4, *Intelligence Analysis,* dated 10 January 2020.

Doctrine is Just a Start

The preface of ATP 2-33.4 advises readers to understand the content of several additional doctrinal publications. The recommendation is only a foundation on which to build. Just as one cannot expect to score the maximum on the Army Combat Fitness Test by relying only on unit physical training, superior analytical performance requires additional individual effort. Reading is a form of cognitive training. Intelligence analysts at varying echelons recommend reading *Psychology of Intelligence Analysis* by Richards J. Heuer, Jr.[1] Your peers also recommend reading the quarterly *Military Intelligence Professional Bulletin* (MIPB) to learn from the experiences of others. MIPB provides a platform in which the practitioners of our craft share their insights, lessons, and best practices. If you are disinclined to read or are saddled with a long daily commute, there's always the option of listening to doctrine from a selection of Training and Doctrine Command audiobooks or video books available online through the multimedia resources of the Combined Arms Center.

Don't Believe Everything You Read

This does not contradict the analysis lesson learned encouraging you to read. This lesson is only to remind you to evaluate the myriad of information sources you will integrate into your analysis. I direct you to the intelligence analysis process described in Chapter 2 of ATP 2-33.4. The concise description of the intelligence process phases and the table, which presents source reliability and information accuracy ratings, support multiple lessons and best practices leaders and Soldiers report to us. Intelligence analysis doctrine describes an effective and efficient procedure to associate a degree of confidence with a piece of information.

The tactical operations corollary to "Don't believe everything you read" is the axiom that the first report in contact (with an enemy) is always wrong (inaccurate). The following lesson is from a counterinsurgency veteran who decried the Army's use of the (abandoned) term *low intensity conflict*. The officer, serving as an infantry division G-2 at the time, was firm in the belief that a conflict was no longer low intensity the instant a single bullet was fired in your direction. His point, and lesson for us, is that one's perspective changes with the conditions one experiences. Some suggest that the more potentially lethal the environment, the more likely the effect on initial contact reports. The former G-2 once had to react to a report from a usually reliable reconnaissance element of an enemy self-propelled artillery battery position located much closer to friendly positions than originally thought probable. The artillery battery not only moved an extensive distance from its last reported position, but it also crossed a major river undetected. No reports identified the presence or movement of bridging or watercraft. The G-2 was able to clarify the situation through additional collection and analysis. The vehicles that were reported as tracked self-propelled artillery were actually lightly armored amphibious tanks with their main guns stowed in the traveling configuration.

Headlines, titles, section headings, and other identifiers often serve as clickbait to spur a purchase or make an intelligence product stand out in a sea of other intelligence products. Should we believe these attention-getting labels? As intelligence professionals, we must also consider the motivation behind the producer of the information we use in analysis. What is the originator's intent? Why is this information available to us? What is the perspective of the collector or reporter? Why is this information important? Accepting information at face value, even from government sources, may lead to analytical errors. Are we able to determine the source's past performance in terms of reliability and accuracy? Does past performance indicate current conditions? Are classified sources of information more credible than unclassified sources? This is a lot of information to consider when evaluating tactical intelligence reports, but we have to do it. Following the process in ATP 2-33.4 will helps us evaluate intelligence reporting at the fast pace expected in large-scale ground combat operations.

U.S. Army photo by Dan LaFontaine, PEO C3T

Assistant product managers for Project Manager Mission Command review the common map for the Command Post Computing Environment, or CPCE. The CPCE will help facilitate the military decision-making process for commanders and staff.

Avoiding Confirmation Bias

Confirmation bias is an occupational hazard that S-2s and intelligence analysts must consciously avoid. We put so much time, effort, and intellectual energy into performing analysis that we often forget the enemy gets a vote. We can avoid confirmation bias by recommending reconnaissance and surveillance tasks to identify an absence of evidence relevant to, or indicators supportive of, the developed enemy courses of action. We must rely on self-discipline to combat confirmation bias when screening intelligence reports. A former division all-source intelligence analysis section leader reported falling victim to confirmation bias during a warfighter exercise. The analyst attributed reports of enemy armored forces marshaling in an urban area to faulty reporting. Several things blinded him from seeing the accuracy of contradictory intelligence reports: his focus on supporting the subordinate brigades' close fight, previous command post exercises conducted in preparation for the warfighter exercise, and the firm belief the enemy's only potential courses of action were limited to those identified

during intelligence preparation of the battlefield (IPB). The reporting he had discounted comprised the initial reports of what would become the division's deep fight. The analyst was alerted to the analytical pitfall only through the mentoring of the warfighter exercise cadre. As a result, when he was scheduled to be sleeping, the analyst reviewed and integrated into the division's analysis process each of the disregarded reports in the manner he should have done initially. The revised analytical conclusions led to a time-compressed military decision-making process (MDMP) to address the emerging threat.

All great [leaders] are gifted with intuition. They know, without reasoning or analysis, what they need to know.

—Alexis Carrel, 1873–1944
Nobel laureate in Physiology or Medicine

We must remain vigilant to confirmation bias in everything we use in our analysis (print, broadcast, chat, tweets, etc.). Please review Alexis Carrel's quote above. Do you agree with his conclusion? I did when I first read it. It aligns with a Project Warrior[2] officer describing how a brigade commander defeated the opposing force (OPFOR) at a national training center rotation. The national training center OPFOR has garnered the reputation of being undefeatable, at times believed to be able to dominate the rotational training unit (RTU) at will. It is a significant achievement for an RTU commander to prevail against the OPFOR. The Project Warrior officer attributed the RTU brigade commander's success to his forcing the OPFOR to react to his actions, preempting his force from having to react to the OPFOR. The speed at which the RTU commander directed the tactical operations resulted in the brigade operating inside the OPFOR commander's decision cycle, as John Boyd instructs (observe-orient-decide-act).[3] The brigade commander directly consumed intelligence reports and directed his forces through a series of mission orders unencumbered by waiting for his staff to provide the iterative results of IPB and MDMP.

The commander received and processed information and then reached an analytical conclusion alone more quickly than the subordinate staff elements were able to achieve collectively given the same sources of information. Did the commander rely only on intuition as Carrel states? I think not. Let's change Carrel's quote to something I think is more accurate by removing the phrase between the commas and merging two sentences into one: "Good commanders know what they need to know." Commanders identifying what they need to know become the commander's critical information requirements. The overall intelligence effort is charged with answering the priority intelligence requirement component of the commander's critical information requirements. IPB and MDMP provide the reasoning and analytical conclusions to determine what leaders and staff personnel need to know. It is not what we ***feel*** that is most important as Carrel attributes to intuition. It is what we ***think,*** estimate, anticipate, confirm, deny, seek, refute, conclude, and apply that is the key to success. The most important verb in this list is the last one**—*apply*.** We must apply what we think to drive action.

"What Do You Think, S-2?"

The most simple yet strongest demonstration of a battalion or brigade commander's trust in the unit's intelligence officer is when personnel in the command post pause to hear the response to, "What do you think, S-2?" Every intelligence professional regardless of rank, component, or position should be prepared to answer the question, "What do you think (fill in the blank)?" When leaders and staff personnel at the tactical level seek and incorporate your analysis of the enemy, terrain, and weather into the unit's plans and operations, you are doing a great job. You know you are a member of the commander's "circle of trust"[4] when asked to comment on the full range of the unit's mission or operational variables.

Multiple sources credit retired GEN Colin Powell with issuing the following guidance, which numerous commanders

Photo by Mr. Brian Hill (Leonard Wood)

Officers of Fort Leonard Wood's Maneuver Support Battle Lab discuss their creation of the Analytics User Interface Model, an Excel-based platform that provides commanders with descriptive, predictive, and prescriptive analytics.

have repeated to their respective intelligence officers: "'As an intelligence officer, your responsibility is to tell me what you know. Tell me what you don't know. Then you're allowed to tell me what you think. But you always keep those three separated."[5] I cannot think of a better example demonstrating the importance of clarifying the results of analysis into what we know to be true, what we think may be true, and what we estimate might happen. The full responsibility of assessing and weighing the risks associated with decision making rests solely on the commander's shoulders. Our analysis helps the commander assess and determine the amount of risk to accept. Remembering GEN Powell's guidance helps us separate the results of our analysis to facilitate the commander's decision making.

The Duck Test

Multiple intelligence professionals report the Duck Test being drilled into them throughout their careers. It's a nod to Ockham's razor. (The spelling of *Ockham* appears in various forms should you choose to take the Google route to enlightenment.) I remember Ockham's razor as the simplest explanation is often the most likely to be correct. I also remember the frequent retort of an infantry division G-2 when receiving multiple reports indicating—but not yet confirming—an anticipated enemy action, "If it looks like a duck, swims like a duck, and quacks like a duck, then it's probably a duck."

The other side of the Duck Test and the potential to be swayed by confirmation bias is the healthy dose of skepticism most intelligence analysts possess. Each of the previous analysis lessons learned comes with an inherent intellectual friction. Can determining what the enemy is doing, or will do, be so readily available to us as the Duck Test suggests? Intelligence analysis is never binary. The answer is never black or white; there will always be a shade of gray. Even the nascent aspects of artificial intelligence conducted in the domain of zeroes and ones are only capable of informing what happens in the gray area. The most important gray, however, is the gray matter between our ears. We operate in this gray-tinted cognitive friction zone. When does the continuous consideration of questions become counterproductive? Is the threat force so emboldened or unsophisticated that we can accept at face value the indicators being reported? No, analysis is never this easy. The threat must be hiding something from us. What are we missing? These are reasonable doubts that if left unchecked could lead to the destructive cognitive malfunction of analysis paralysis.

Paralysis by Analysis[6]

Personal observation, reading, and experience allow me to declare that the intelligence resources available to the current force have increased tremendously, as has the complexity of performing intelligence analysis. Collecting and analyzing information on an enemy who seeks to hide their true intentions and capabilities has been, and will remain, a challenge for the intelligence warfighting function and the MI Corps. Analysis was difficult to perform in the legacy force because we did not have enough information. We had fewer intelligence collection capabilities, resulting in scarce critical information to analyze.

By applying legacy force lessons to current and future force operations, we can take steps to avoid paralysis by analysis. We can expect, and therefore plan, to mitigate the effects of being overwhelmed by information. Sometimes so much information is available to us that we lose focus of what is most important. This can lead to believing every intelligence product is important. We believe the "golden nugget" holding the key to the enemy's plan is sure to be embedded within a single report. We might miss the report if we do not personally review each message, product, or radio transmission. We fail to triage information and resort to scouring every report with equal intensity and focus. This approach wastes time and effort and takes us away from other tasks of equal or more importance. A senior intelligence observer coach/trainer (OC/T) recommends establishing, training, rehearsing, and managing the analytical effort and process by delegating roles, tasks, and functions to differing elements or positions. Notice the absence of delegating tasks to individuals by name. Talent management is important when building your analytical team, but you cannot rely on the personalities to be in the appointed positions during operations or training for the duration of an operation. Codifying the actions and responsibilities by position and sections, teams, or elements enables the system to continue operating should any personnel be unavailable.

The OC/T knows the S-2/G-2 has established and is managing an effective intelligence operation when observing the senior intelligence officer walking around the command post or intelligence support element with one hand in a pocket and the other grasping a coffee cup. It is clear to the OC/T that the officer is not attempting to do every intelligence task; rather, the officer is overseeing and guiding the intelligence complement. They are leading the subordinate leaders who are leading their respective teams. The violation of AR 670-1, *Wear and Appearance of Army Uniforms and Insignia,* notwithstanding, the officer is also leading by example in empowering subordinates while remaining fully involved in managing the intelligence effort. The decentralization of roles, responsibilities, and tasks is more likely to prevent the occurrence of paralysis by analysis.

Steps for preventing and overcoming paralysis by analysis

Paralysis by analysis is more likely to occur when an individual takes on the responsibility for the entire analytical effort. Multiple OC/T personnel from the differing combat training centers report this phenomenon usually affects an S-2, an MI captain, or a warrant officer. These professionals will drive themselves to exhaustion attempting to analyze the overwhelming amount of information received. When these MI professionals reach their cognitive culminating point, it provides the perfect opportunity to mentor the unit on the importance of sleep plans, standard operating procedures, delegation, and teamwork. The mentorship also establishes the importance of preparing at home station by training for the speed, volume, complexity, and ambiguity of reporting expected to occur in the multiple domains of large-scale combat operations.

Don't Fear the Black Swan[7]

Stuff happens. As discussed in avoiding confirmation bias, the enemy gets a vote. We may find that while our procedures and processes are sufficient, the enemy may do something unexpected. Sometimes a black swan appears. Our analysis that results from performing every step in IPB, MDMP, targeting, and intelligence analysis processes may turn out to be wrong. Former OC/Ts and brigade combat team S-2 leaders offer that the first and most important lesson from making the wrong call is to continue the mission. Don't obsess over a (mis)perceived failure. Revise the appropriate aspects of the intelligence operation and drive on. You may have to recommend changes to the information collection plan, revise the estimated enemy courses of action, recommend new priority intelligence requirements, etc. Identify the potential impact of changes to intelligence synchronization. Correct errors in the intelligence processes, roles, responsibilities, or functions as soon as time is available without compromising intelligence support to the current operation or phase. A comprehensive standard operating procedure reference enables leaders to make changes on the fly to provide a working aid for those adjusting to the changes.

Conclusion

The commanders we support are skilled, knowledgeable, and capable. They are imbued with the wisdom attained through study and experience. They are proficient in IPB and are familiar with a variety of intelligence sources, methods, and capabilities. Commanders will place their trust and confidence in you and the MI professionals you lead to provide timely, accurate, and relevant analysis. Maneuver and MI leaders share these final pieces of advice when the inevitable analytical mistake occurs: 1) shake it off and drive on and 2) don't let it become a habit.

Epigraph

Colonel [later Lieutenant General] Sir William F. Butler, *Charles George Gordon* (London: Macmillan, 1891), 85.

Endnotes

1. Richards J. Heuer, Jr., *Psychology of Intelligence Analysis* (Center for the Study of Intelligence, Central Intelligence Agency, 1999).

2. Project Warrior is a program in which company grade officers serve as observer coach/trainers at combat training centers. They then instruct professional military education at the U.S. Army centers of excellence, primarily at captains career courses.

3. Robert Coram, *Boyd: The Fighter Pilot Who Changed the Art of War* (New York: Little, Brown, 2002).

4. *Meet the Parents,* directed by Jay Roach (2000; Universal City, CA: Universal Pictures).

5. Tim Weiner, "The Long View, Pssst: Some Hope for Spycraft," *New York Times*, December 9, 2007, https://www.nytimes.com/2007/12/09/weekinreview/09weiner.html?_r=2&oref=slogin&pagewanted=all&oref=slogin.

6. Wikipedia, s.v. "analysis paralysis," https://en.wikipedia.org/wiki/Analysis_paralysis.

7. Nassim Nicholas Taleb, *The Black Swan, The Impact of the Highly Improbable,* 2nd ed. (New York: Random House, 2010).