

# 30 Second Decision Makers

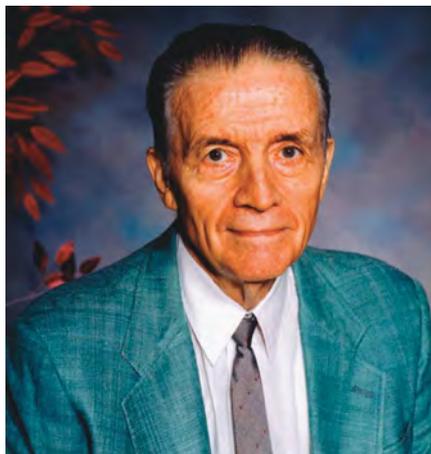
Let's teach leaders to analyze and synthesize

by Capt Jason K. Mahuna

In 1989, Col John Boyd—an Air Force fighter pilot best known for his observation, orientation, decision, action (OODA) Loop—presented his “Discourse on Winning and Losing” brief to a class at Command and Staff College in Quantico, VA. His opening remarks identified “two things that you have to be able to do: analyze and synthesize.”<sup>1</sup> This brief was built through years of study and refinement in order to convey his understanding of war theory. With renewed focus on PME, the Marine Corps must re-evaluate what exactly it wants leaders to learn and how it will be applicable to the ultimate mission: winning wars. Cue John Boyd and his brief from 30 years ago. If we strip away all the buzzwords and the lengthy mission statements, what every successful commander requires is a tactical leader who can analyze and synthesize. The ability to analyze and synthesize in order to maintain orientation is what drives leaders to increase tempo. This ability allows leaders to out-manuever the enemy and win battles, but we must teach this ability. I do not mean to say transfer information from instructor to student; it is not that simple. Students must be able to understand how to conduct analysis and synthesis on their own and know how to employ this skill effectively to make better decisions faster. In other words, students must be able to develop *fingerspitzengefühl* (finger-tip feeling) or “an intuitive ability to look at a given situation, immediately grasp the essentials, and rapidly act.”<sup>2</sup>

The importance of analysis and synthesis to an individual's decision-making process cannot be overstated. Once again, cue Boyd and his OODA loop.

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**Col John Boyd.** (File photo)

Within the OODA loop, orientation is the second phase and encompasses five interrelated categories: cultural tradition, genetic heritage, new information, previous experience, and analysis and synthesis.<sup>3</sup> Individuals enter the Marine Corps with unique genetic heritage which can be utilized to their advantage through strength training, diet, or supplementation. Similarly, individuals also enter with unique cultural traditions, which they can expand upon through viewing situations from a different perspective, such as the regional culture and language familiarization program offers. The previous experience component encompasses life experience prior to the Marine Corps and, more importantly, training conducted within units—the

actual act of doing—which allows one to acquire experience. The category currently being targeted by PME is new information. While new information is a necessity, it should be a prerequisite to formal PME, not the focus of it. New information does not need to be taught, rather, it is freely accessible to any student. One can read a book, watch a movie, or follow an online journal to gain new information. Instead, formal PME should focus on analysis and synthesis: the category that ties all these together. This is a vital ability that must not simply be received, but understood, practiced, and then constantly refined.

If PME continues to primarily consist of dissemination of information, then the Marine Corps will remain rigid. Leaders will not be able to adapt faster than the enemy, and the United States will continue to lose wars. Taking an analogy from Boyd, leaders must be able to build snowmobiles, to deconstruct (analyze) the various components of multiple current realities or “things.” For instance, take a skier, outboard motorboat, bicycle, and tractor/tank, then reconstruct (synthesize) these various components into something entirely new: a snowmobile—using the skis, motor, handle bars, and tracks of the aforementioned “things.” Utilizing the wide array of information provided through Marine Corps University continuing education, the Commandant's Reading List, and independent reading, research, and education, leaders must be able to identify the constants of current reality and create new ideas or new “things” to address an ever-changing future reality. Formal PME should be the means by which this ability is taught to leaders throughout their career. Teach them to

build a snowmobile instead of how to disassemble and reassemble bikes, skis, boats, and tanks.<sup>4</sup> As Boyd explained,

There are two ways in which we can develop and manipulate mental concepts to represent observed reality: We can start from a comprehensive whole and break it down to its particulars or we can start with the particulars and build towards a comprehensive whole.<sup>5</sup>

It is not the intention of this author to argue against the current material taught in formal PME schools. Quite the opposite, without the material, analysis and synthesis are useless. History, theory, doctrine, and the planning process are vital components of formal PME. However, students should be expected to be well-versed in these matters prior to class. Hold leaders accountable for reading from the Commandant's reading list, studying doctrine, and seeking knowledge. By the time they arrive for formal PME, they should be familiar with the topics that will be discussed. They should not wait for an instructor to assign this work; instead, instruction should consist of how to tear apart this material, find the components—which remain under given circumstances—and build new ideas. In doing so, under the supervision of a subject matter expert, students are able to synchronize their thinking habits and create “organizational *fingerspitzengefühl*” or a common finger-tip feeling.<sup>6</sup> This is the organization's ultimate goal in conducting formal PME that allows maneuver warfare to succeed. If leaders at all levels are able to think alike, yet independently, then the organization can truly implement decentralized command, and leaders at all levels will be able to work toward a common objective, or as Boyd terms it *schwerpunkt* (main effort): “orientation is the *schwerpunkt*.”<sup>7</sup>

### Current Strategy

In the 2018 National Defense Strategy, Secretary Mattis listed PME as a subset of “Build a More Lethal Force.” He states, “PME has stagnated, focused more on the accomplishment of mandatory credit at the expense of lethality and ingenuity.”<sup>8</sup> Further, he “emphasize(s) intellectual leadership”

and the “build(ing) of trust,” both of which are nested within Boyd's ideas.<sup>9</sup> Similarly, the Secretary of the Navy, Richard Spencer, stated in his recent memo outlining a Naval university system,

The Navy and Marine Corps will work together to leverage a proactive feedback loop including wargaming, analytical capability, active relationships ... and a lifetime continuum of learning.<sup>10</sup>

While the *Marine Corps Operating Concept* calls for

developing intuitive tacticians through significant repetition ... Marines must be able to understand the battlespace with sufficient clarity to identify the points of advantage and disadvantage ... [all leaders] will need critical thinking skills to continually assess and navigate complex engagements characterized by blurred boundaries between military and civilian concerns.<sup>11</sup>

Finally, the Marine Corps University states, as an introduction to their first strategic goal, “PME is grounded in the development of higher order habits of mind associated with the analytic and creative skills foundational to decision-making.”<sup>12</sup>

From the DOD down to the Marine Corps University, the strategic goals dance around the same concepts. The problem is nobody has taken these buzzwords and concepts and put them into a uniform structure, which simultaneously explains why we are focusing on these concepts and how that helps the leader on the battlefield. That is why we must turn to Boyd and focus on two required abilities: analysis and synthesis.

### The Intended Outcome

From the first introduction of the mission statement, all Marines are taught that in order to get buy-in, leaders must explain the why. PME is no different: if Marines cannot see why it is important to their development, then they will not prioritize learning. The structure to conduct PME is in place, the emphasis on PME has been articulated, and requirements for PME have been enforced. In order to make

it all matter, students must understand what they are doing, and institutions must emphasize what they expect of the student; credit for completion is not the end state—it is the ability to analyze and synthesize.

Conveniently enough, the same man who heavily influenced Marine Corps doctrine also left a depiction of a comprehensive decision-making cycle. PME is nested within this cycle and it is worth depiction as a key component of the whole. So instead of disseminating information with the hopes of students teaching themselves to critically think, why not provide a setting in which students are able to tear apart the very material they covered, find the pieces that really matter, and then combine this into something completely new. This process can be supervised and guided by an instructor who is a subject matter expert, they may even provide a “school solution,” *not* to be confused with *the* “school solution.”

This process will allow students to cover the same material, though they would be expected to receive (read, watch, listen, etc.) this information prior to class while learning and practicing the all-important skills of analysis and synthesis in class. The outcome of this is that students have not only received the new information but they have thought about it, broken it down into individual concepts, and then rebuilt the concepts into their own understanding. In doing so, they will identify the truly important elements within the material, how to apply it, and when it may or may not be discarded.

### Execution

This concept is not new; in 1993, Col Michael Wyly wrote, “Maneuver warfare cannot be taught through methodical teaching.”<sup>13</sup> In “Teaching Maneuver Warfare,” he describes methods of teaching maneuver warfare, but what he is teaching is not so much maneuver warfare but the skills necessary to conduct maneuver warfare. Leaders must be put into situations in which they are forced to make decisions, then their decisions should be challenged in order to test not only their own resolve for defending their decision, but why



**PME is important to their development.** (Photo by LCpl Dylan Hess.)

he made the decision in the first place. What he is describing is a student's ability to analyze and synthesize.

A recent article in *War on the Rocks* by Bruce Gudmundsson argues for an approach to PME which forces students to make their own decisions and come up with their own solutions to "decision-forcing cases." His argument offers a means of teaching analysis and synthesis, though he does not identify it in this way. He states:

Decision-forcing cases require that students approach problems in a way that is, at once, critical and creative, hard-nosed and humane, and rooted in reality while open to innovation. In doing this, it prepares them for the definitive task of the profession of arms: the design of custom tailored solutions to problems that necessarily involve people and machines, politics and violence, the eternal verities of war, and the transient peculiarities of specific situations.<sup>14</sup>

It is not the exact approach to developing these skills that matters, but the effect of the PME on the student. Decision-forcing cases as described by Wyly or Gudmundsson are examples of forcing leaders to be involved not with learning the material but in developing their abilities. Students must not be restricted to the orientation phase of the OODA loop, but forced to cycle

through the entire loop with a focus on developing their ability to analyze and synthesize, thereby increasing their ability to cycle more efficiently and effectively.

### **Formal PME Is *Not* the Endpoint**

In his book, *The Death of Expertise*, Professor Tom Nichols states, "Education ... should aim to make people, no matter how smart or accomplished they are, learners for the rest of their lives."<sup>15</sup> He is addressing a common trend in America, but it is equally applicable to the military. The difference is the military has actually defined the endpoint: Sergeant with Sergeants School; Staff Sergeant with Career School; Captain with Expeditionary Warfare School; Major with Command and Staff; and so-forth. Rarely do leaders even delve into the Commandant's Reading List, though *required*, much less pursue further education on their own.

This is partly because of leaders viewing PME as the only form of professional learning. This is troubling for three reasons. The first is students show up to formal PME with the expectation completion equals development, if they complete PME they have become a better, more qualified leader. The second is once a leader is PME complete, they stop learning. They do not frequent the pages of the *Marine*

*Corps Gazette* or *War on the Rocks*. They most certainly do not venture across the pond to Wavell Room or down under to logistics in war. The third is even if they did explore these resources on their own, they would not have the skills necessary to conduct meaningful analysis and synthesis of the material.

### **The Value of Boyd**

For those who have dabbled in the Commandant's Professional Reading List, the "To Be or To Do" speech may sound familiar. Grant Hammond writes about it in *The Mind of War*, but it is also a staple in any of Boyd's biographies, including both Robert Coram's *Boyd: The Fighter Pilot Who Changed the Art of War* and Ian Brown's *A New Conception of War: John Boyd, The U.S. Marines, and Maneuver Warfare*. This was a speech he gave to officers he employed, urging them to be more concerned with their actions and contributions than their rank and personal progression. Boyd was not interested in theory that produced an efficient bureaucracy. He was interested in theory that produced action-oriented thinkers. This idea is directly applicable to PME, the Marine Corps should be interested in equipping leaders for the real-world challenges they will face, not creating another checklist to be evaluated on promotion boards.

While he produced many briefs on his theories, Boyd only published one in writing, "Destruction and Creation." In order to distance PME from buzzwords and truly define what it is PME should accomplish, the Marine Corps should revisit "Destruction and Creation." Boyd provides a summary on creating concepts:

We can see that: general- to-specific is related to deduction, analysis, and differentiation, while, specific-to-general is related to induction, synthesis, and integration.<sup>18</sup>

This summary and the ideas presented in "Destruction and Creation" encompass the litany of buzzwords offered in the various strategies presented above, so why not consolidate and define these into one definitive theory, which serves

as a baseline for where we ultimately want to end up: Boyd's OODA loop.

*Fingerspitzengefühl*

Preparing for war is no easy task; however, when discussing PME, we must remain cognizant of the fact this is what we are doing. As such, we must evaluate how theory is applicable to a leader's ability on the battlefield. To do so, Boyd has provided us with the OODA loop. The leader who is able to cycle through the OODA loop more efficiently will have an advantage on the battlefield because they will be able to combine perception and reality faster in order to drive their decision making. While Figure 1, the OODA loop, commonly presented as a simple observe, orient, decide, act loop, the full sketch is provided.<sup>17</sup> In terms of PME, this full depiction of the OODA loop allows us to focus in on how PME can fit into this ability.

From the four phase loop, we are able to focus in on orientation. Orientation is where *fingerspitzengefühl* or "finger-tip feeling" is developed and refined. Observation, decision, and action are battlefield inputs that rapidly change; while you can simulate these inputs, it is the orientation phase which ultimately decides how you react to them. As Boyd stated in "Organic Design for Command and Control,"

Orientation shapes the character of present observation-orientation-decision-action loops—while these present loops shape the character of future orientation.<sup>18</sup> (See Figure 2.)

This leaves five components or filters that can be developed before stepping foot on the battlefield. Of these five, Boyd separates out one in particular: analyses/synthesis. This reoccurring focus is what he wanted those who sat through his briefs to understand because it was the base to all his work. As discussed earlier, dissemination of information can develop "new information" and training can develop "previous experience." Therefore, formal PME should focus on developing a leader's ability to analyze and synthesize.

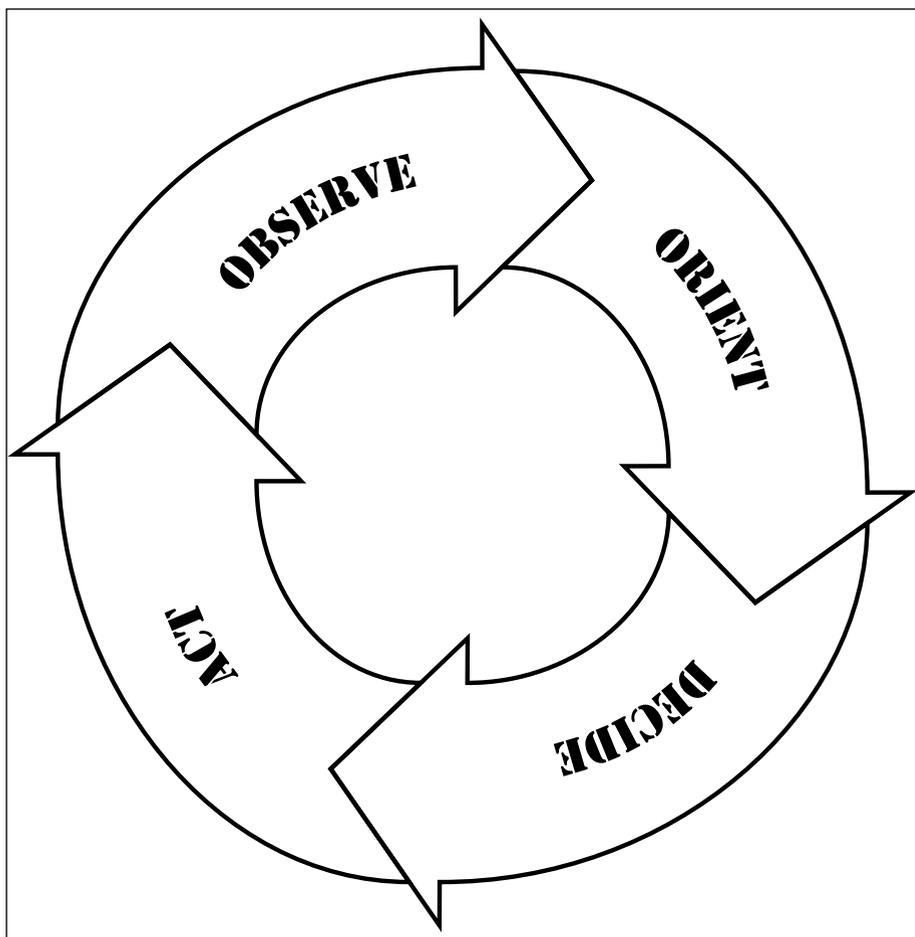


Figure 1. (Figure provided by author.)

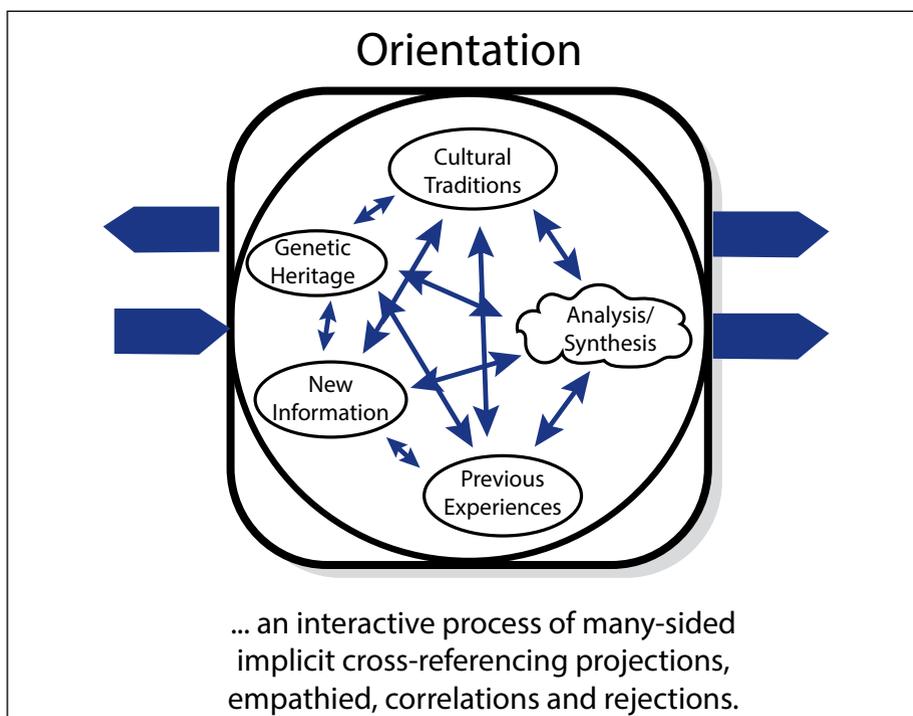


Figure 2. Orientation.<sup>19</sup> (Figure provided by author.)



Marines are expected to read, watch, and listen. (Photo by LCpl Alexandra Amor Santosarambulo.)

### Schwerpunkt

From *Marine Corps Doctrinal Publication 1, Warfighting*, we know “like the commander’s intent, the main effort becomes a harmonizing force for subordinate initiative.”<sup>20</sup> This is in line with Boyd’s idea that individual *fingerspitzengefühl* leads to organizational *fingerspitzengefühl*. Thus, when leaders are operating off the same intuitive decision making, the organization can pursue a common *schwerpunkt* (main effort) while maintaining unit cohesion and focus. It is this idea which allowed the Germans to succeed in blitzkrieg operations during World War II and which will allow the Marine Corps to succeed in maneuver warfare.

This recognition is in line with Boyd’s comments on blitzkrieg in that leaders must be able to make decisions based on specific situations. They must be able to be innovative while remaining rooted in reality. If a group of leaders is able to do so within the same structure and with a basic understanding of how the others think, then they can execute true decentralized command while at the same time pursuing the *schwerpunkt*.

### Decision Makers

In a speech at the United States Naval Academy, Gen Mattis recalled one combat decision he made:

I made the decision in about 30 seconds ... when asked how long I spent considering that decision though, you know what my answer was? About 30 years. I spent 30 years getting ready for that decision that took 30 seconds.

The Marine Corps’ formal PME program cannot start and end at the required school for each grade. PME must be a constant presence in every leader’s career. Knowing much of this will be conducted independently, leaders must be taught how to analyze and synthesize during their formal instruction. This will provide them the ability not only to conduct meaningful self-study, but also to increase their effectiveness and efficiency when cycling through their OODA loop on the battlefield. The faster leaders can orient and make decisions, the more they can drive the tempo, which creates chaos for their adversary and causes them to come undone.

### Notes

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2. Ian T. Brown, *A New Conception of War: John Boyd, The U.S. Marines, and Maneuver Warfare*, (Quantico, VA: Marine Corps University Press, 2018).

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4. Col John Boyd, “The Strategic Game of ? and ?,” edited by Chet Richards and Chuck Spinney, PowerPoint Presentation, (June 2006).
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6. “Discourse on Winning and Losing.”
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8. Secretary of Defense, James N. Mattis, *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military’s Competitive Edge*, (Washington, DC: 2018).
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16. “Destruction and Creation.”
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