The arts and humanities—whether cognitive science, philosophy, or countless other disciplines—provide a wealth of knowledge that inform the way we think and behave as Marines. They enable us to be warrior scholars, Marines who study their profession and employ their knowledge in practice. Without question, these disciplines have had profound effects on our warfighting principles and the ways in which we practice them.

Col John Boyd, USAF(Ret), an innovative and decidedly multi-disciplinary thinker, is well-known among Marines for his so-called OODA loop, a concept which rests squarely on cognitive scientific, interdisciplinary foundations. At the most general level, the concept is simple: it is the notion that we constantly engage in a decision-making cycle in which we observe, orient, decide, act (hence OODA). According to this model, we receive and analyze input on our surroundings before using it to formulate and ultimately act upon decisions. As actors within a world teeming with sensory inputs, different cognitive modalities must absorb then filter relevant information with speed and accuracy in order to provide us an optimal decision-making calculus with which to act. Some of these inputs include the anticipated actions of other actors and thereby reflect a game theoretic approach to decision making, one in which the actors can mutually affect one another’s decision-making process.

The Marines’ moral ethos can also be located in the humanities. There is a strong and likely intentional sense in which it originates from the ancient wisdom of Aristotle. By his lights, our core values are simply virtues learned through good habit. For Marines, they specify the characteristics necessary to achieve professional and personal excellence, ones that are constantly actualized—that is, by “being a Marine 24/7”—and thoughtfully nurtured by unit leaders. But why study Aristotle if his doctrines and concepts are already enshrined in our core philosophy? Why study cognitive science or any other discipline for that matter?

The examples of Col Boyd and Aristotle are just two that remind us that interdisciplinary study can exert a profound and positive influence on our legacy as Marines. At the same time, it also reminds us that our institution may not fully value interdisciplinary study. Currently, the mandate for professional learning beyond strict warfighting exists for a privileged few. For all others, the opportunities to expand their foundational knowledge are scant; as such, their capabilities as thinking warfighters are limited. In this discussion, I illustrate the value of interdisciplinary thinking, evaluate our current commit-
ments to education, and raise the notion that we should rethink our institutional commitment to broad-based learning for all Marines.

New PME, New Marine Corps

Imagine a Marine Corps in which professional military education (PME) includes mandatory study of economics, psychology, and history, all from a decidedly non-military perspective. In this world, we might have a NCO who, because of his studies, knows the moral hazard, a concept I explain shortly, of developing bulkier gear to counter improvised explosive device (IED) threats. Former Marine Sgt Michael Hanson describes how the Marine Corps, rather than deciding the terms of engagement with its enemy, instead developed Mine-Resistant Ambush Protected (MRAP) vehicles to allow Marines to survive the threat of roadside IEDs. It is not hard to see how Marines allowed themselves to adapt to enemy tactics unwittingly or not. Our perceived sense of security left us willing to bear risks we would otherwise avoid. This is the very essence of moral hazard. It is the notion—an economic one—that an individual will adopt actions that assume greater risks simply because they believe themselves to be protected from their consequences.

Perhaps if we knew that technology emboldens us to act with moral hazard, we might have developed less expensive and possibly more effective means of countering the IED threat. More importantly, we may have used such knowledge to gain initiative against our enemies, to push him back and maintain an operational space favorable to our terms. In his Twenty-Eight Articles, counterinsurgency scholar David Kilcullen stresses the importance of keeping the initiative rather than adapting to our enemies. He argues, 

[whatever else you do, keep the initiative. In counterinsurgency, the initiative is everything. If the enemy is reacting to you, you control the environment ... build your own solution, further your game plan and fight the enemy only when he gets in the way. This gains and keeps the initiative.]

Indeed, we should build our own solution. (Or better yet, we should create problems for our foes.) But the success of this effort depends partly on the breadth of the foundational knowledge from which we can draw the elements of effective solutions.

Let us return to the hypothetical world in which there is a professional mandate for studying the arts and humanities. Cognitive psychology, like economics, can also change the bounds within which we observe, negotiate, and act within our environment. To an extent, existing training already incorporates key lessons learned through psychology. In the most rudimentary classes on tactics, Marines learn about scanning techniques used to observe objects of interest within their field of vision. Look right to left rather than left to right, to take one example. Force your brain to break habit and become proficient in identifying visual anomalies. These are tricks learned not simply by happenstance but by the study and application of perceptual psychology. What if our Marines also knew that carrying heavy loads and experiencing fatigue can significantly alter our perception of the steepness of hills and the apparent distance of objects from observers? It could mean the difference between an accurate call for fire and an inaccurate one. It could also mean choosing one patrol route over another more canalizing and potentially deadly one. Perceptual psychology teaches us that the human visual system provides a changing yardstick with which we form decisions. Knowing this and the wisdom gained through interdisciplinary study can potentially improve the decision-making capabilities of all Marines.

Reevaluating Our Commitments to Education

If we wholeheartedly desire to become warrior scholars, it is critical that we reap the knowledge of art and science beyond simply the art of war. This is certainly not a new imperative; it is etched into our warfighting doctrine. Marine Corps doctrine “demands professional competence among its leaders.” We, as Marines, “must be individuals both of actions and of intellect.” For, in truth, “the military profession is a thinking profession.” We are fighters and thinkers, so our doctrine makes it clear: the full expression of our fighting spirit stems from the depth of our studies. The reality, however, is that we have yet to match our lofty doctrine.

For one, the Marine Corps narrowly prescribes its commitment to education by way of order. The structure of the Enlisted PME, for example, is specified primarily in MCO P1553.4B, Professional Military Education. Language promoting interdisciplinary growth simply does not exist in this document. PME “focuses on developing military judgment and decision-making” for each grade. The building blocks ar-

Marines—officer and enlisted—would have classes in economics. (Photo by Sgt Antonio Rubio.)
ranged to support this development—rank-specific courses that range from MarineNet leadership primers to resident courses—arguably do not embrace the spirit of broad-based learning. Perhaps it is time that the Marine Corps conducts an external review of enlisted PME as it has with officer PME. *8*

The Commandant’s Reading List is another means by which we can affirm our commitment to well-rounded education. Yet as it stands, it reflects a preference for literature on heritage (*e.g.* *With the Old Breed*) for lieutenants while reserving more thought-provoking works (*e.g.* *Outliers* by Malcolm Gladwell) for chief warrant officers and captains. This is not conducive to developing critical thinkers. We need to eschew this sort of thinking in favor of a broad-based educational requirement in which a lance corporal has every reason to read the works of Galula or Fukuyama during his free time as much as a major general. To borrow again from Kilcullen, “*r*ank is nothing, talent is everything.” *9* Indeed, if talent truly is that important, let us cultivate it at every opportunity.

Finally, our warfighting doctrine even requires that all Marines think as much tactically as they do strategically. *10* A SNCO may think twice about issuing clumsy guidance like “shoot first, ask questions later” as did SSgt Frank Wuterich in the 2005 Haditha killings. Exposure to a full range of readings may encourage the SNCO to carefully consider the impacts of a seemingly tactical decision on sensitive political relationships. *11* If this is an excessive expectation, Marines should at least understand why they fight. This is made explicit in the very readings which articulate national political and military strategy. These readings should not be sidelined for future learning.

**Training to a New Standard**

From the highest level, there needs to be a call for open education that seriously explores interdisciplinary study. In reality, there is no explicit prohibition against this, but efforts to promote it are few. This article merely initiates a larger discussion about the importance of interdisciplinary learning and the evolution of the warrior scholar. Broadening the scope of professional learning while affording Marines the opportunity to choose subjects of interest according to their preferences and intellectual curiosities can ultimately build a deep wellspring of knowledge that maximizes the Marine Corps’ combat power in new and innovative ways. There is no question that our Marines have always trained to be the finest warriors. Now let them train to be the finest thinkers too.

**Notes**


8. The Wilhelm Study (2006) and the HASC Report (2010) were both undertaken to evaluate the state of officer professional military education and to recommend comprehensive improvements.


10. *MCDP 1*.