Developing Character at the Frontier of Human Knowledge

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ABSTRACT

The US military service academies have both a mission and a mandate to develop character in the future officers they train and educate. This paper uses a real-world case (in which names, dates and locations have been changed) to re-frame character development in terms of character's function during ethical dilemmas. We propose that the character that will be required in the professional lives of future officers is necessarily a combination of virtue cultivation and ethics education. Further, we propose a novel pedagogical concept for motivating students to pursue the rigors of character education, offering the concept of "awe" as a means of instilling the internal drive necessary to develop character. Ethics education, indeed all forms of education, then are propelled by a sense of "awe" at the frontier of knowledge, the threshold between that which we know and that which we do not. Approaching character in this way is of particular importance for military members because war creates the space in which ethical dilemmas are more frequent, and often more consequential, than in civilian life. It is because military officers are likely to face unscripted ethical circumstances that their character development must include training in navigating frontiers of ethics knowledge.

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Preface

"Say when ready to copy 9-line," the joint terminal attack controller (JTAC) transmitted to the Air Force pilot on a secure frequency.[1] The 9-line attack briefing serves as the contract between the ground force commander and the aircrew for when, where, and how weapons are to be employed (US DoD Joint Publication , 2009, p. V-39). It is not a clearance to release weapons, but if a pilot receives a 9-line, weapons release clearance is often not far behind.

Second Lieutenant Dave Brown watched the video generated by his infrared targeting pod closely. He saw the target, Objective Santa Fe, standing in a field just north of his home. He was a tall man with an even taller shadow in the early morning sun. Lt Brown knew that the person-hours that had gone into finding this al Qaeda leader were too many to count. He and a number of other aircrew, intelligence analysts and ground personnel had been watching him for weeks to confirm his identity and enable a strike. There Santa Fe stood—in the open—90 meters from the nearest building. If the crew was unable to strike this target today they may never get another chance; and Lt Brown knew it.

The 23-year old lieutenant keyed the mic. "Standby 9-line. Standby. There are kids in the field of view. Confirm you copy kids?"

Lt Brown and his crew watched as Objective Santa Fe's children fluttered around him on the silent video monitor. The presence of the children was unmistakable. Aside from the height difference, which was pronounced in the long morning shadows, Afghan adults do not typically run. Children do.

The radio was silent for a few moments while the JTAC undoubtedly conferred with the ground force commander. The JTAC responded, "I copy kids. I see the kids. But when I tell you to shoot, you're gonna shoot."

Introduction

Lt Brown's true story is a reminder that future officers must be equipped not only with the technical training to act proficiently, but with the character to act ethically. The service academies' mandate to develop leaders of character, and certainly the mission of the Air Force Academy's Center for Character and Leadership Development, are derived from the fact that officers will face moral dilemmas like the one Lt Brown faced. What Lt Brown needs, the resource to which officers will turn in situations like these, is character.

This paper offers a framework for developing the character of future Lt Browns, along with a novel pedagogical concept for motivating students to pursue the rigors of character education. A precise definition of character may be difficult to find, and unanimity on such a definition would be nearly impossible. Instead of defining the term, we ask what its function must be in contexts like Lt Brown's. To this end, we consider character to be the combination of virtue cultivation and ethics education. Further, we offer the concept of "awe" as a means of instilling the internal drive necessary for students to develop their character. Ethics education, indeed all forms of education, are propelled by a sense of "awe" at the frontier of knowledge, the threshold between what we know and what we do not know.

This concept of the frontier of knowledge is especially relevant to future officers. War creates the space in which ethical dilemmas are more frequent, and often more severe, than in civilian life. When a military officer is faced with an ethical dilemma, he or she may not be able to fall back on the collective learning of a community of ethicists. Every Lt Brown dilemma is not quite like any that has come before. It is because of the nature of the work of a military officer, and the possibility that such an officer is the first to navigate a particular circumstance in the field of applied military ethics, that character development must include training in navigating frontiers of knowledge.

Character

Though there are a few dissenters, many philosophers divide the history of normative ethical theories into three broad categories (Honderich, Ed., 1995, p. 941). Deontological views, associated most closely with Immanuel Kant, suggest

that the primary concern in ethical thought is duty. One faces moral duties to act in certain ways regardless of the consequences. Teleological views hold that the ends which one pursues are paramount. The most popular of these is utilitarianism, attributed to Jeremy Bentham and John Stuart Mill. It defines the proper end as happiness and suggests that an action is right insofar as it produces the greatest happiness for the greatest number of people.

Many contemporary military ethicists suggest that both of these systems, whatever their merits for the populace at large, are insufficient in the military context precisely because no pre-planned ethical system of acts can anticipate the nuances and difficulties that arise in the contemporary military environment and that therefore a third way, a virtue-centric approach, is best suited to military members. While asking *how ought we to act*, as both deontology and consequentialism demand, may be sufficient for many, those training to be military officers (and military members more broadly) must instead ask *what kind of people ought we to be?* One immediately sees how closely this question posed by virtue ethics is connected with character development. For such a system we must look beyond Kant, Bentham, and Mill, back to Aristotle.

Aristotle builds his system of ethics around excellences of human character—around *virtues*. The virtues are cultivated by the habituation of right action in our desires, emotional reactions, and modes of thinking. The intellectual virtue that governs action most supremely, on Aristotle's account, is a particular kind of wisdom. *Phronēsis* (usually translated 'prudence' or 'practical wisdom', Aristotle, 1999, p. 345) informs the agent's actions such that he or she acts "to the right person, in the right amount, at the right time, for the right end, and in the right way" (Aristotle, 1999, p. 29).

If one cultivates the virtuous states of being courageous, and honest, and kind, and generous, and magnanimous, and wise, Aristotle supposes, then when faced with a troublesome dilemma, one will act well. Aristotle, against his intellectual descendants, Kant, Bentham, and Mill, is primarily concerned, not with whether a person *chooses the right act*, but with whether the person is *of the right character*. These virtues do not necessarily come easily, argues Aristotle, but they are a necessary for a properly functioning human being. Thus, with the proper training, our nature is conducive to character.

Here we return to the service academies' missions. Producing military leaders of character relies on an approach like Aristotle's because war is hell. It is not hell simply because of the physical dangers, the bloody battles, and loss of life—though surely these are terrible corollaries. It is hell because our typical conceptions of ethical behavior are stressed. War generates some circumstances that leave us with no readily available moral determination—no moral out—not unlike Lt Brown's circumstances in the opening paragraphs. Philosopher of war Brian Orend admits that such a circumstance is "a wretched moral tragedy and, no matter what you do, you're wrong" (Orend, 2013, p. 168).

If we, as military members and civilians entrusted with the character development of future officers, could predict the ethical dilemmas that will plague the next war, we could give our students either a rulebook for utilitarian calculations or a means of deconflicting deontic principles. For most of society such guides already exist. One may appeal to the state's laws or to societal norms in order to make ethical decisions; but these standards are insufficient in war. Though the law often conforms to ethical principles, war takes place at the fringes of posited law where what is ethically obligatory may be legally prohibited and where what is legal may nevertheless be unethical. Societal norms that otherwise govern our interpersonal relationships are of little value when two societies, each with its own set of norms, clash in lethal conflict. Such norms are insufficient to guide military personnel—and especially military leaders—to the "right" answer. So instead we cultivate character. We habituate virtue. We do not produce people who know right answers to predetermined questions. Instead we seek to produce the *kinds of people* who will answer well the difficult questions we cannot possibly foresee.

The role of virtue cultivation in military training has

already received significant scholarly attention (Olsthoorn, 2011; Robinson, 2007, pp. 23-26; Robinson, 2007, pp. 259-269; Castro, 1966, pp. 60-78; Aronovitch, 2001; Olsthoorn, 2005, pp. 183-197). What we add here is a conception of character development that requires both virtue cultivation and ethics education. Virtue then, while a necessary condition, is insufficient to develop the character of future officers. Aristotle himself recognizes that if virtues are to produce the "right action," they must be in accord with "correct reason" (Aristotle, 1999, p. 86). What, then, is "correct reason" and how can our future officers come to possess it? To address this requirement we turn to the second component of character development: ethics education; in particular, an ethics education that emphasizes struggling with ethical dilemmas rather than merely achieving a "textbook" answer. This two-fold representation of character is recognizable in Lt Brown's story. If Lt Brown is to act well in the deeply troubling circumstance with which he is presented, he needs not only the virtues of courage, honor, *phronēsis*, etc., but also the capacity to work through difficult ethical dilemmas that comes only from practice and forethought. Before addressing ethics education itself, we must spend some time discussing the proper motivation for such education.

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Awe

We recommend that a sense of awe should motivate ethics education. Our challenge in preparing future military officers is to instill in them the drive to continually seek the unknown in the domain of ethics, both now as cadets and on their own after commissioning. If our students are motivated, not merely by external sanctions, but by an internal desire for greater understanding, they will be more likely to wrestle with difficult ethical problems in training, which will better prepare them for the difficult ethical problems they will face as officers.

We define awe as the sensation that fills the human mind when it is confronted with a rare and vast unknown. This sense of vastness provokes a desire to accommodate the unknown (Keltner & Haidt, 2003, pp. 297-314). Research into the effects of awe has shown that students who were primed to feel awe felt less of a need for "mental closure," and were more open to concepts that were "bigger than themselves" (Shiota & Kelter, 2007, p. 944). In other words, the desire to accommodate the vast unknown is the root of an internal motivation to continue learning more, to seek more and more vastness. Each time the student reaches some new "known," he or she better appreciates how much is left unknown. The internal motivation of awe, not the external sanctions of grades, professional success, or graduation, ought to motivate us and our students to investigate ethics. And the success or failure of this motivation, that is, the degree to which our students practice working through the most difficult of ethical dilemmas, will determine whether they are prepared for the ethical dilemmas like Lt Brown's that await them as military officers.

Ethics Education – The Universal Frontier

It is because learning takes place between what is known and what is unknown that we have characterized learning as a process of interacting with a frontier. The learning to which we refer is not merely the act of hearing and remembering bits of data. We instead have in mind a genuine learning during which the subject adopts as *truth* what may have been previously known only as *fact*. There is a difference between being able to mimic the math teacher's movements on a particular problem and understanding the principles well enough to operate on other problems. It is

this kind of understanding that is achieved at the frontier. Properly framed, to learn something new—that is, to try to understand something previously not understood—is to face at once both the intrepid aspiration to venture out and the paralyzing fear of the immense vastness of our own ignorance.

Learning understood as confronting the frontier is most recognizable in the natural sciences. Researchers devote their professional lives to discovering the unknown, motivated by awe and wonder at the vastness, not of what we know about the universe, but of what we do not (Firestein, 2012, p. 2 & 7). A physicist is not initially inspired by the promise of wealth or rank, but by the sense of wonder drawn from observing the night sky. This frontier is easily recognized in the physical sciences, but the vastness of the material universe is only one frontier among many. A similar—and equally compelling—frontier is found in the study of ethics. After all, "philosophy, according to its three greatest inventors, Socrates, Plato, and Aristotle, begins in wonder and ends in wisdom" (Kreeft, 2015, p. 9). As such, the history of ethical thought has been a pursuit of the unknown every bit as much as the history of science has been—and neither has been without its missteps and mistakes.

For example, no one holds Democritus's view on the structure of atoms anymore; but how right he was close to 400 B.C. to claim that the whole perceptible world is made up of imperceptibly small particles of various sizes and shapes (Curd, 1996, p. 79). The theory was not much altered for 2,200 years until John Dalton added that atoms can only combine in whole number ratios (Rex, 2002, p. 14). Albert Einstein predicted the mass and sizes of atoms and molecules and J. J. Thompson added electrons (Rex, 2002, pp. 16 & 18). Niels Bohr added electron orbits, though he put them in the wrong places and Werner Heisenberg discovered the limits of our knowledge of such small elements (Rex, 2002, pp. 137 & 181). Each iteration was a venture into the frontier of that which is unknown. Each development was right about some things and wrong about others. Renowned physicist Marie Curie captured this iterative progression of science further into the frontier of ignorance when she said, "one never notices what has been done; one can only see what remains to be done" (Chiu & Wang, 2011, pp. 9-40). Kant too recognized the iterative nature of scientific study when he said that "every answer given on principles of experience begets a fresh question, which likewise requires its answer" (Kant, 2001, p. 86).

Each time the student reaches some new "known," he or she better appreciates how much is left unknown. The internal motivation of awe, not the external sanctions of grades, professional success, or graduation, ought to motivate us and our students to investigate ethics.

Though the history of ethical study is not identical to the history of scientific study, it has also been a search for truth. Socrates and Plato introduced the study of virtue (Kreeft, 2015, p. 80) and justice (Kreeft, 2015, p. 89) in the Fourth and Fifth Centuries BC, but it was Aristotle, a generation later, who proposed the first system of ethics (Deigh, 1995, p. 245). In the 13th Century AD, Thomas Aquinas undertook to reconcile Aristotle's system with the Christian one (Foot, 1978, p. 1), producing a system of ethics that acknowledged the value of humans as image-bearers of God (Auguas, 2009, p. 55). It was not until the enlightenment period when philosophy distanced itself both from theology and from science that Immanuel Kant produced a system of ethics centered on human dignity and grounded in secular terms, and specifically, in the will (Kant, 1993, p. 35). But where Kant grounded the whole of human morality in the will, in the Eighteenth and Nineteenth Centuries, Jeremy Bentham and John Stuart Mill grounded the will in happiness (Mill, 1993, p. 140), producing a seismic shift in ethical thought that one can still feel in popular contemporary conceptions

of "the greater good."

Some will say that the fact that these philosophers disagree with one another is evidence that there can be no right answers to the spurious questions philosophy asks (or at our institution, that philosophy is "too fuzzy" to produce any legitimate truth claims). But this criticism can just as easily be leveled against the physical sciences. Why are we willing to accept that a new principle about the universe in the physical sciences that is only partially right is a step toward truth, but in ethics is an indication of the absence of truth? Einstein's discoveries did not prove Newton's *wrong*, his discoveries retained Newton and made the whole of science, inclusive of both Newton and Einstein, "applicable to a wider range of phenomena" (Rosenberg, 2005, p. 99). The same is true of Socrates, Aristotle, Aquinas, Kant, Mill, and the rest. The most robust picture of the workings of the universe is only available if we take Newton and Einstein together as answering two different questions. Likewise, the fullest picture of ethical truths is only available to us when we accept the discrete truths produced from each ethical system.

Just as the history of science has led us to the knowledge we now possess about the material universe, though it has made mistakes along the way, the collected work of these ethicists has brought us to a world in which we take for granted certain ethical truths. Though it may seem obvious to us that humans have inherent dignity and rights simply because they are human, it only seems so because we stand on the shoulders of such giants as Immanuel Kant. Likewise, though it may seem obvious to us that military strikes must be proportionate, the ethical principle that an act must produce more good than harm is only obvious to us because we have inherited the work of Bentham and Mill. In this way the history of ethical thought has been a venture into, and an investigation of, the frontier of human thought every bit as much as the study of science has been.

Ethics Education – The Individual Frontier

To this point, we have described the frontier of human knowledge—the "universal" frontier—between what we as collective humanity know and what we do not. There is another kind of frontier, though, that is more relevant to undergraduate students. This second frontier is between that which *the individual* knows and that which she does not. When introduced to a field of study for the first time, students live, for the moment at least, at this individual frontier. We have seen the sense of awe that such a frontier generates in our students. One student will find it when she discovers Kant's compelling claims about the limits of reason. Another will find it when he sees how compelling Plato's account of recollection really is. Students find it when they confront Aristotle's assertion that man is a political animal; or when they read Madison's and Tocqueville's claims that man is by nature ambitious, yet at the same time deeply desiring of equality with others.

There may be an impulse to ignore this individual frontier entirely. In teaching undergraduates, one who has worked at the universal frontier of human understanding as an expert in the field may be tempted to say that there once was a frontier in this area, but experts in the field have traversed it, collected data, and written down the results. The frontier is now closed. The student's task is to memorize the discoveries those experts have made. The result is neither awe nor understanding, but passive receptivity.

The alternative, more motivational method, is quite different. Rather than describing the universal frontier that has already been traversed, the teacher invites students to discover their own individual frontier; the boundary between that which they know as individuals, and that which they do not. Students engage in their own journey into ignorance. This is not an invitation to ethical relativism, rather it is an acknowledgement that when the frontier is explored, there is, in fact, something out there to be discovered, though different students will approach the frontier from different angles. The role of the teacher is not to tell them that it has already been discovered, but to set the conditions under which students may themselves discover it.

Our claims in this section conform to the education

literature. One study found that the best teachers "don't think of [learning] as just getting students to 'absorb some knowledge.' … Because they believe that students must use their existing mental models to interpret what they encounter, they think about what they do as stimulating construction, not 'transmitting knowledge'" (Bain, 2004, p. 27). Though the metaphoric language is different, the fundamental assertion is the same. In the act of genuine learning, the teacher creates an environment in which students are self-motivated, not merely to retain data, but to construct understanding on the one metaphor, or to explore the frontier on the other.

To use a different picture, in the first method, the teacher walks a path she has walked many times before. She says to her students "here, walk behind me. I will point out to you the things that we (the experts) have determined are important." In the second method, the teacher walks the same familiar path, but instead she says to the students "you lead the way. Every twist and turn is an adventure. Point out to me what you discover and what you find important, and if you get too far off course, I will help to correct you."

This, too, is present in the literature. Ken Bain quotes one educator who says, "when we can successfully stimulate our students to ask their own questions, we are laying the foundation for learning." Another says, "we define the questions that our course will help them to answer, … but we want [our students], along the way, to develop their own set of rich and important questions about our discipline and our subject matter" (Bain, 2004, p. 31).

In ethical study, each student brings his or her conceptions, or preconceptions, to the question at hand. Philosophical inquiry—discovery at the frontier of their own personal threshold of new knowledge—challenges some of these conceptions and affirms others. In either case, we are working at the individual, personal frontier between what an individual person knows about moral facts and what she does not know. This is an exciting journey into the unknown—it is every bit as exciting (and can be every bit as terrifying) as its scientific counterparts.

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Frontiers and The Military Officer

Up to this point we have described the act of learning as the confrontation with a frontier, and we have described the role of awe in motivating the student to venture into that frontier. So far, though, the discussion has been equally applicable to all disciplines and to all students. In this section we will show why approaching ethics education as a contact with the frontier is particularly important in the character development of military officers.

If the sense of awe at the frontier is that by which students are spurred into a lifelong love of learning, then we should expect to find such a result regardless of the field of study; and so we do (Shiota & Kelter, 2007, p. 944). Students who are overwhelmed with the vastness of space may go on to push that frontier forward by discovering a new heavenly body. Students who are overtaken by the depths of the sea may go on to discover the migratory patterns of the great white shark. But most of our students will not. Though the service academies place a heavy emphasis on science, technology, engineering, and mathematics (STEM) courses, few of our graduates will go on to work at the frontier of human knowledge in these fields. Some will make careers in the Defense Advanced Research Projects Agency or in the Jet Propulsion Laboratory, but most service academy graduates with STEM degrees will not spend their lives doing STEM work. They will spend their lives doing *officer* work. And military officers, regardless of

their academic upbringing, will likely spend some time at the frontier of human knowledge in *ethics*.

It is not merely the case that we cannot tell our students *which* moral dilemmas they will face. The ethical demands war places on its practitioners are so numerous, vast, and unpredictable that we cannot even know *what kinds* of moral dilemmas they will face. In order to train like we fight and fight like we train we must teach our students to venture out into the frontier of *individual* ignorance now because when they find themselves in the fight, facing moral dilemmas whose nuances have never been covered in any ethics textbook, they will be asked to take the journey into the frontier of *universal* ignorance. For these future officers, the distinction between individual ignorance and human ignorance in the field of applied ethics will collapse.

Recall Lieutenant Brown's story from the opening paragraphs. As an Air Force second lieutenant, he had less than two years of military experience.[2] Nevertheless, this junior officer was faced with a terrible choice. In the short pause that followed the JTAC's radio call, Lieutenant Brown asked himself one of the most difficult questions of his life. Does he have an unrestricted duty to defend the lives of innocent children, no matter the consequences? Or does he have the responsibility to measure the consequences of firing against those of not firing? Objective Santa Fe has killed before, and would kill again. He had orchestrated multiple complex attacks against the US Marines in Southern Afghanistan, and Brown knew that unless he and his crew prosecuted the attack, Santa Fe would kill more Americans and more Afghans tomorrow.

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In that brief moment, Lieutenant Brown grappled with hundreds of years' worth of normative ethical theory. The deepest split in ethics since the Middle Ages has been between consequentialism, in which important ends can justify any means, and Kantian deontology, in which the primacy of one's moral duty stands fast against even the most severe of contingent circumstances. The philosophic debate between Kant, Bentham, Mill, and all the others came to rest on that mid-June night, in that cockpit, on the gold bar-laden shoulders of an Air Force Second Lieutenant.

Brown's voice broke the brief silence on the aircrew's intercom. "What do you think, guys? You OK with this?" After a brief discussion among the crewmembers, Brown made a plan. In the end, Lieutenant Brown told the JTAC that he would wait a few more minutes, hoping that the children would depart the local area. A few minutes later they did, yielding a clean shot against Santa Fe alone in the field. The JTAC called "cleared hot," and the crew released the weapon. Objective Santa Fe was killed and there was no collateral damage.

Lieutenant Brown, with less than 24 months of Air Force service, handled that situation with the poise, responsibility, and command presence of a far more experienced officer. In this case, what was at stake was nothing less than the taking of innocent life. International Humanitarian Law (IHL) and the Just War Tradition upon which that law is based assert that any collateral damage, and especially civilian casualties, are permissible only if the military value of the target exceeds the magnitude of collateral damage. Both the philosophical and legal normative standards available, however, offer no more precision than this (Orend, 2013, pp. 125-126).

When conducting close air support (CAS) operations with a joint terminal attack controller (JTAC), joint US military doctrine directs that the "target priority, effects, and timing of CAS fires within an operational area" are the

purview of the ground force commander, not the aircrew (US DoD Joint Publication , 2009, p. I-3). Thus, it is the ground force commander who best knows the situation on the ground, the enemy, and the expected collateral damage from a given strike. In Lieutenant Brown's case, when the JTAC and the ground force commander deliberated, the subject matter of their conversation was undoubtedly the proportionality demanded by the laws of war. When the JTAC returned to the aircrew and directed them to continue the attack, he was acknowledging that the ground force commander had weighed and considered all the salient variables—some of which were simply beyond the scope of the aircrew's situational awareness—and decided that the attack, even with the presence of the children, was proportional.

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It is for this reason that Lieutenant Brown's story is so illustrative of the claims in this paper. War is so challenging a venue precisely because in wartime contexts the law often fails to adequately capture the ethical principles involved. The attack, if prosecuted as the JTAC requested, *would have been legal*. And yet, would it have been *right*? In spite of the legality, many of us are left with a deeply troubling intuition that such things ought not be done, that children ought not be killed, even collaterally, simply for standing in the wrong place at the wrong time.

Further, Lieutenant Brown's internal struggle to determine whether he faces an inalienable duty to defend innocent children, or whether that duty can be overcome when such significant ends justify terrible means, is precisely the historical conversation that students encounter when they study the history of normative ethics. Deontology, on the one hand, suggests that we have moral duties that stand against the heaviest of consequences. Utilitarianism, on the other hand, suggests that if the ends are extreme, any means are admissible, even those that appear to violate our other duties. This paper does not intend to settle the centuries-long dispute. The presence of the dispute, and the illustration Lieutenant Brown's story has offered, point us back to the previous discussion of virtue. It is, in part, because deontology and utilitarianism come into unexpected and seemingly insoluble conflict with one another in military life that we must train our warriors to be virtuous. This is what it is to be a leader of character. Though Lieutenant Brown could not have properly labeled utilitarianism and deontology in his analysis of his mission, he had nevertheless spent his life cultivating the virtue of *phronēsis*, or practical wisdom, such that he could, despite the terrible circumstances, act "to the right person, in the right amount, at the right time, for the right end, and in the right way" (Aristotle, 1999, p. 29).

Character cultivation, as demonstrated in Lieutenant Brown's story, is a combination of virtue cultivation and ethics education. He had the capacity to work through the difficult dilemma set before him; a capacity that comes only from practice. He also had the virtue of practical wisdom, cultivated in part during his military training, to act well. We must teach our students to take journeys into the frontiers of both ethics education and virtue cultivation now so that they are practiced, trained, and equipped to navigate unforeseeable frontiers when they are sitting in Lieutenant Brown's chair in just a few short years.

Conclusion, Examples, and Questions for Further Discussion

Developing the character of future Lieutenant Browns is a mission that encompasses all aspects of the service academies. The framework that we have provided here, namely that virtue cultivation and ethics education are equal parts of character development, can apply (in varying degrees) to academic, military, and physical training. At

our first encounter with these terms, our intuition may suggest that virtue cultivation ought to take place in the cadets' leadership and physical training and that ethics education ought to take place in the academic environment. In practice, this is the case at the Air Force Academy, where virtue cultivation falls under the Commandant of Cadets' military training, and ethics education falls under the Dean of Faculty's Philosophy Department. We suggest, instead, that the line between virtue cultivation and ethics education is too blurry to allow for a clean distinction between who "owns" one or the other. The ideal of dual ownership of virtue cultivation and ethics education points out a pair of shortfalls in our current approach. First, a virtue training seminar cannot adequately build character without the motivation to pursue the frontier that is ethics education. Second, a single core philosophy course, as is currently required at the Air Force Academy, while necessary, is insufficient exposure to the ethics frontier.

Regardless of the "mission element," we should embrace a sense of awe as a pedagogical tool for motivating cadets to make the difficult journey toward the ethical frontier. In practice, this means showing students the vastness of knowledge that remains to be explored—challenging their sense of mastery of a subject—and then giving them tools to start accommodating that vastness. This is an iterative process: each attempt at accommodation yields new questions that inspire awe, propelling the journey onward. This kind of learning can (and should) take place in any academic discipline. As we have shown, though, there is a special role in character development for the exploration of the frontier in ethics.

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A pair of examples from the Air Force Academy—the Cadet Honor System and Character Education programs—can serve as case studies for how to instill a sense of awe at the frontier of the unknown.

A distinguishing factor of the Air Force Academy's Cadet Honor System is that it is operated by cadets themselves. Its decisions, the most severe of which result from Honor Board hearings, can be the difference between expulsion and commissioning as an officer. These stakes are among the highest possible in a training environment. The Honor System provides an example of a mentor pointing out an ethical frontier and giving cadets the freedom to investigate it without a predetermined destination. The frontier in this case is applied justice, the nuance of which implies that the frontier will never be completely mastered; the freedom to investigate comes from the responsibility that the cadets alone have to make a decision. Those familiar with the program will recognize that each board has an active duty officer mentor. This officer holds the same role as the teacher in the classroom. His or her function is not to tell the cadets how to vote, or to tell the cadets what the answer is, but to facilitate the cadet board's journey into the frontier. It is possible that the circumstances of the case are new and different, that the cadets who must decide the fate of the accused have never grappled with these kinds of questions in quite this way before. The officer, then, stands off to one side, both inviting the cadet board to investigate the frontier for themselves, and making him- or herself available in any cases of concern or confusion. For the cadet who stops to consider the situation, the result is awe and a yearning to learn more. From personal experience, one of the authors can attest that serving on a Cadet Wing Honor Board is a profoundly formative experience.

Though the Cadet Honor System provides an example of the Academy teaching ethics as a frontier even outside academic classes, there are negative examples as well. In their first year of commissioning education, for example, cadets are presented with a list of nine virtues.[3] The virtues are defined by the Air Force, and no ethical reasoning is given for why these nine virtues were chosen. There is no

sense of a frontier remaining to be explored, much less any discussion about why it should be explored. As presented, this is information not to be understood as truth, but merely retained as fact.

In this case, we recommend a slight change to the order of this education: character education should point out an ethical frontier by asking "why are these virtues important in the first place?" Or even by asking cadets "which virtues are important and why?" In our experience, much of ethics training in the Air Force begins with a scripted training module in which the proctor holds the instructor sheet containing "the right answers." When students, or military members, are brought into this kind of training environment, they are offered, not a frontier, but courses already charted. All one has to do in such environments is recite the right answer. This work is easy when the ethical questions at stake are about My Lai, Haditha, or Abu Ghraib. But, as we have shown with Lieutenant Brown's story, not all scenarios in the real world include such obvious ethical lapses.

One improvement to character development, then, may be to begin the character training by presenting extraordinarily difficult ethical dilemmas, followed by a discussion during which the moderator is not pre-loaded with the "right" answer. The moderators, like the honor board officer mentor, like the teacher in the classroom, would only point out a frontier, inviting cadets to engage in the difficult work of investigation. The group may, indeed, come to an answer, and it may indeed be the right one. But character cultivation takes place, not in the rote memorization of right answers, but in this act of discovery.

Rather than closing with a fixed set of proposals for the way forward, we instead propose that readers within and across service academies consider viewing character development through the lens we have presented. Some questions open for discussion are these: How can those responsible for military training contribute to the ethics education of the cadets? How can academies better incorporate virtue cultivation in the classroom? How can those of us responsible for cadet training and education increase the cadets' exposure to moral dilemmas given the time restraints that are already in place? How can we better identify and propagate to cadets the real-world moral dilemmas officers are facing in the fight right now?

In a very short time, our graduates will be the ones caught up in those moral dilemmas. Whether they navigate them "for the right end, and in the right way" will depend on the challenges we ask them to face in their time of preparation, and whether those challenges imbue them with a sense of awe at what remains to be discovered at the ethical frontier.

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Notes

1 This account is a true story that took place in the recent past. The names and operational details have been changed to protect anonymity and operational security.

2 Lieutenant Brown was not prior enlisted.

3 The virtues are honesty, courage, accountability, duty, loyalty, respect, mission, discipline, and teamwork.