

US Army War College  
**USAWC Press**

---

Monographs

---

10-10-2017

## A Typology of Arguments about Drone Ethics

Mary Manjikian Dr.

Follow this and additional works at: <https://press.armywarcollege.edu/monographs>

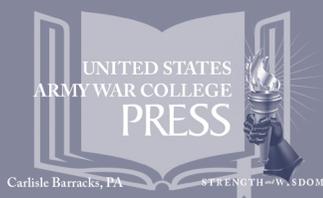
---

### Recommended Citation

Manjikian, Mary Dr., "A Typology of Arguments about Drone Ethics" (2017). *Monographs*. 288.  
<https://press.armywarcollege.edu/monographs/288>

This Book is brought to you for free and open access by USAWC Press. It has been accepted for inclusion in Monographs by an authorized administrator of USAWC Press.

*The*  
**Letort**  
*Papers*



# A TYPOLOGY OF ARGUMENTS ABOUT DRONE ETHICS

Mary Manjikian

Strategic Studies Institute  
U.S. Army War College, Carlisle, PA





# The United States Army War College

---

The United States Army War College educates and develops leaders for service at the strategic level while advancing knowledge in the global application of Landpower.

The purpose of the United States Army War College is to produce graduates who are skilled critical thinkers and complex problem solvers. Concurrently, it is our duty to the U.S. Army to also act as a “think factory” for commanders and civilian leaders at the strategic level worldwide and routinely engage in discourse and debate concerning the role of ground forces in achieving national security objectives.



The Strategic Studies Institute publishes national security and strategic research and analysis to influence policy debate and bridge the gap between military and academia.



The Center for Strategic Leadership contributes to the education of world class senior leaders, develops expert knowledge, and provides solutions to strategic Army issues affecting the national security community.



The Peacekeeping and Stability Operations Institute provides subject matter expertise, technical review, and writing expertise to agencies that develop stability operations concepts and doctrines.



The School of Strategic Landpower develops strategic leaders by providing a strong foundation of wisdom grounded in mastery of the profession of arms, and by serving as a crucible for educating future leaders in the analysis, evaluation, and refinement of professional expertise in war, strategy, operations, national security, resource management, and responsible command.



The U.S. Army Heritage and Education Center acquires, conserves, and exhibits historical materials for use to support the U.S. Army, educate an international audience, and honor Soldiers—past and present.



# STRATEGIC STUDIES INSTITUTE



The Strategic Studies Institute (SSI) is part of the U.S. Army War College and is the strategic-level study agent for issues related to national security and military strategy with emphasis on geostrategic analysis.

The mission of SSI is to use independent analysis to conduct strategic studies that develop policy recommendations on:

- Strategy, planning, and policy for joint and combined employment of military forces;
- Regional strategic appraisals;
- The nature of land warfare;
- Matters affecting the Army's future;
- The concepts, philosophy, and theory of strategy; and,
- Other issues of importance to the leadership of the Army.

Studies produced by civilian and military analysts concern topics having strategic implications for the Army, the Department of Defense, and the larger national security community.

In addition to its studies, SSI publishes special reports on topics of special or immediate interest. These include edited proceedings of conferences and topically oriented roundtables, expanded trip reports, and quick-reaction responses to senior Army leaders.

The Institute provides a valuable analytical capability within the Army to address strategic and other issues in support of Army participation in national security policy formulation.



**Strategic Studies Institute**  
**and**  
**U.S. Army War College Press**

**A TYPOLOGY OF ARGUMENTS  
ABOUT DRONE ETHICS**

**Mary Manjikian**

**October 2017**

The views expressed in this report are those of the author and do not necessarily reflect the official policy or position of the Department of the Army, the Department of Defense, or the U.S. Government. Authors of Strategic Studies Institute (SSI) and U.S. Army War College (USAWC) Press publications enjoy full academic freedom, provided they do not disclose classified information, jeopardize operations security, or misrepresent official U.S. policy. Such academic freedom empowers them to offer new and sometimes controversial perspectives in the interest of furthering debate on key issues. This report is cleared for public release; distribution is unlimited.

\*\*\*\*\*

This publication is subject to Title 17, United States Code, Sections 101 and 105. It is in the public domain and may not be copyrighted.

\*\*\*\*\*

Comments pertaining to this report are invited and should be forwarded to: Director, Strategic Studies Institute and U.S. Army War College Press, U.S. Army War College, 47 Ashburn Drive, Carlisle, PA 17013-5010.

\*\*\*\*\*

This manuscript was funded by the U.S. Army War College External Research Associates Program. Information on this program is available on our website, *ssi.armywarcollege.edu*, at the Opportunities tab.

\*\*\*\*\*

All Strategic Studies Institute (SSI) and U.S. Army War College (USAWC) Press publications may be downloaded free of charge from the SSI website. Hard copies of certain reports may also be obtained free of charge while supplies last by placing an order on the SSI website. Check the website for availability. SSI publications may be quoted or reprinted in part or in full with permission and appropriate credit given to the U.S. Army Strategic Studies Institute and U.S. Army War College Press, U.S. Army War College, Carlisle, PA. Contact SSI by visiting our website at the following address: *ssi.armywarcollege.edu*.

\*\*\*\*\*

The Strategic Studies Institute and U.S. Army War College Press publishes a quarterly email newsletter to update the national security community on the research of our analysts, recent and forthcoming publications, and upcoming conferences sponsored by the Institute. Each newsletter also provides a strategic commentary by one of our research analysts. If you are interested in receiving this newsletter, please subscribe on the SSI website at the following address: *ssi.armywarcollege.edu /newsletter/*.

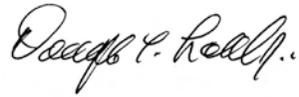
ISBN 1-58487-768-5

## FOREWORD

In recent years, international nongovernmental organizations (NGOs) like Human Rights Watch and Amnesty International have described U.S.-led drone strikes in Pakistan, Syria, Afghanistan, and elsewhere as atrocities and even war crimes. Both the International Committee of the Red Cross and Human Rights Watch have asked whether the United States is violating the Law of Armed Conflict (LOAC), with Human Rights Watch suggesting that the United States should be prosecuted for its actions. At the same time, the International Committee for Robot Arms Control (ICRAC) has called for greater regulation of what they term “killer robots.”

How might military leaders best respond to these allegations? In this insightful analysis, Dr. Mary Manjikian offers a framework for understanding the different types of anti-drone arguments made by policymakers, NGOs, academics, and other states. As she points out, the arguments vary—some opponents are concerned that too much power is given to algorithms and technologies in making decisions about human life. Others are concerned about factors such as executive overreach or the ways in which policymakers might become overly dependent on a military option, which is relatively cheap and easily deployable. In order to respond, we need to know what the critic is really asking. What are their concerns, and how might these concerns best be addressed? Dr. Manjikian provides a framework to distinguish between ethics arguments concerned with technology, those concerned with policy, and those concerned with strategy. She then provides specific guidance as to how policymakers and leaders might respond to each specific concern.

As we confront rapidly changing technologies and learn to operate and maneuver in a new technological environment, this analysis helps to provide a road map and a set of responses to the ethical and normative challenges that we may encounter.

A handwritten signature in cursive script, reading "Douglas C. Lovelace, Jr.".

DOUGLAS C. LOVELACE, JR.  
Director  
Strategic Studies Institute and  
U.S. Army War College Press

## ABOUT THE AUTHOR

MARY MANJIKIAN is Associate Dean of the Robertson School of Government at Regent University. She previously served as a U.S. Foreign Service Officer in the Netherlands, Russia, and Bulgaria, and as a Fulbright Scholar at Durham University's Institute of Advanced Study. Dr. Manjikian's publications include *Apocalypse and Post-Politics: The Romance of the End* (Lanham, MD: Lexington Books, Rowman and Littlefield, 2012); *Threat Talk: Comparative Politics of Internet Addiction in China and the US* (New York: Ashgate, Taylor & Francis, 2012); and *Securitization of Property Squatting in Western Europe* (New York: Routledge, Taylor & Francis, 2013). She is also the author of the textbook *Cybersecurity Ethics: An Introduction* (New York: Routledge, Taylor & Francis, 2017). Her articles have also appeared in such journals as the *International Studies Quarterly*, *International Journal of Intelligence and Counterintelligence*, *Intelligence and National Security*, and the *International Feminist Journal of Politics*. Dr. Manjikian holds an M.Phil. from Oxford University and a Ph.D. from the University of Michigan.



## SUMMARY

While there is widespread opposition to the acquisition and deployment of drones for both surveillance and combat units at the mass and elite levels, individuals and groups differ in the specifics of their arguments. Among domestic and international opponents of unmanned aerial vehicle (UAV) technologies, we can identify arguments that take issue with: specific aspects of the weapons themselves (such as their ability to target precisely); the character of an individual or society that uses these weapons; the ways in which these weapons can change the relationship between a combatant and his adversary; or the way that this technology creates new international norms or doctrines for the conduct of warfare. Thus, anti-drone arguments come in different variants, rely on differing assumptions, and lead to differing policy recommendations—from an absolute ban on their existence to a more nuanced set of guidelines for their creation and deployment. For a commander or planner who wishes to respond to ethical arguments being raised about drones, this Letort Paper can serve as a type of field guide, helping the decision-maker to identify the type of argument being made and the specific concerns which undergird this type of ethical thinking. Knowing this information, decision-makers are better equipped with specific responses to address these concerns.



## A TYPOLOGY OF ARGUMENTS ABOUT DRONE ETHICS

Today, drone use is commonplace; and yet, it is not without controversy. Data from the International Institute for Strategic Studies in Washington, DC, notes that at least 11 countries are using 56 different types of unmanned aerial vehicles (UAVs).<sup>1</sup> Despite the widespread use of drones worldwide both for combat and surveillance purposes, the ethics of their use is still highly contested, and opposition to their acquisition and deployment is widespread. A Pew Research Center Study in 2012 indicated that 52 percent of Germans, 76 percent of Spaniards, 63 percent of the French, and 90 percent of Greeks are opposed to the use of drones.<sup>2</sup> Arguments made at national and international levels and anti-drone initiatives have been presented to the European Commission and the United Nations (UN).

However, not all anti-drone arguments are alike. In formulating a response to these arguments, U.S. policymakers need to understand the varied sources of opposition to drones and the variety of ethical and policy arguments on which this opposition rests. Individuals and groups may oppose drones and their use for a variety of different reasons based on different underlying principles, values, and worldviews. Thus, as American policymakers seek to convince our allies of the importance of these weapons and as we speak to the international community about the utility of these weapons, we need to understand what these ethical concerns are, and why opponents have them.

As this Letort Paper discusses, the term “anti-drone” can be seen as a sort of umbrella under which a variety of different types of arguments and concerns can be located. Some anti-drone activists are concerned with

the harms done to the international system through reliance on these new weapons (such as the erosion of traditional norms governing combat); others, however, focus in on a much more intimate level, speaking of the emotions of attack victims or the emotional lives and well-being of the warfighters themselves. Some analyses focus on individual morality and the ethics of the drone operator himself, while others consider the national values of an actor deploying drones. Still others consider how drone use changes relationships between the warfighter and his adversary. Some analysts and activists treat the advent of drone warfare as a wholly new phenomenon that cannot be compared to previous technological developments, while others disagree. Analysts also distinguish between problems caused by the existence of the technology—those caused by the acts carried out by drones and those created by the activities of their human operators or the machines themselves.

In addition, some opponents describe UAV technologies as dangerous because they lead to the adoption of certain doctrines or strategies, while others worry that they lead to certain policy outcomes. Thus, some opponents state that drones make it easier for a leader to declare war without congressional approval (a policy problem), while others are concerned about the fact that they make covert activity in general a more feasible option (a doctrine problem). Those who worry about the policy problem are concerned that drones could potentially change the character and shape of our political system (including the relations between the President, the Congress, and citizens). Those concerned about the ways in which UAV availability will cause us to adopt different doctrines worry about a different outcome, namely the ways in which such

weapons might end up changing many of the norms and understandings that contribute to the stability of the international system.

All arguments about the ethics of drones are normative because they suggest what should be done regarding drones. However, the solutions put forth exist along a spectrum—with some arguing for limited drone use, provided that certain conditions are met; and others arguing for a total ban on drone use, since they see the weapon's very existence as an ethical problem. Finally, arguments differ in the timeframes used. Some analysts worry how drone warfare might change the conduct of a particular battle (i.e., whether one side had an unfair advantage). Others argue that increased drone use could affect a nation's long-term strategy, including how it thinks about its own vulnerabilities and what is possible (i.e., it might make the nation more belligerent or increase the likelihood of events escalating to a military level).

As discussed earlier, the term "ethics of drones" actually refers to many different phenomena. This Letort Paper presents a typology of anti-drone arguments. It will help military leaders respond to questions about the ethics of drones by helping them understand the underlying assumptions and concerns that motivate such questions. The leader can identify and label the arguments encountered; understand the philosophical, cultural, and ethical assumptions underlying that argument; and then frame a response that responds to those concerns.<sup>3</sup>

There are five specific types of questions and approaches that we can identify in today's anti-drone discourse, both those occurring on elite levels among policymakers and those occurring on a popular level that might be demonstrated through protests, petitions,

or critical articles in newspapers and magazines. These five variants are: (1) arguments about technological specifications; (2) arguments about identity; (3) arguments about relationships between the warfighter and his or her adversary; (4) arguments about effects on the international community; and, (5) arguments about specific doctrines and tactics related to the use of drones (see Table 1).

<b>Argument</b>	<b>Academic Framework</b>	<b>Proponents</b>	<b>Key Questions</b>
<b>Technological Specifications</b>	Utilitarianism, Consequentialism	Pacifists: Society of Friends Mennonite Church USA United Brethren  Human Rights Watch  Harvard Law School's International Human Rights Clinic (IHRC)	Do the new and unique aspects of these weapons (i.e., increased precision; ability to discriminate; speed) make them more or less moral/ethical than previous generations of weapons?  Do these weapons save lives, and if so, whose?
<b>Identity Arguments</b>	Virtue Ethics	Campaign to Stop Killer Robots	Would an honorable warrior (or nation) use these weapons?  What kind of a person or nation does so?
<b>Relationship with Adversary</b>	Levinasian Ethics Ontology	UN Convention on Certain Conventional Weapons  Amnesty International	Is using this weapon an appropriate way to treat my enemies?

**Table 1. Five Types of Ethical Arguments Against Drones.**

Argument	Academic Framework	Proponents	Key Questions
<b>Effects on International Community</b>	Norms Legitimacy	European Parliament  Independent and Peaceful Australia Network	What sort of an example are we (the United States) setting in the international community?  Are we changing the norms/laws of war?
<b>Relationship to Specific Doctrines, Strategies, Tactics</b>	Just War Situational Ethics	Stephen Hawking, Elon Musk, and Steve Wozniak (Apple co-founder)  Electronic Frontier Foundation  Project on Government Secrecy at Federation of American Scientists	How does the use of these weapons affect our ability to fight a just war?  Will having these weapons make us more likely to adopt certain policies and doctrines?  What are the effects of surveillance drones in particular on rights of citizens?

**Table 1. Five Types of Ethical Arguments Against Drones. (cont.)**

First, some activists worry about the weapons' technical capabilities. These activists draw on writings from the fields of robotics, legal studies, and moral philosophy including machine ethics to advance concerns about the new and novel facets of autonomous weapons—as well as their inherent limitations. They ask not “How should we use drones or under what circumstances?” but rather “What specific facets of the evolving technology of unmanned or robotic combat weapons are likely to create new or ongoing ethical dilemmas?” Autonomous weapons are thus viewed

not simply as a new stage of technological advancement—like other types of technological advances that have occurred before—but rather as something revolutionary that will lead to a reconceptualization of the conduct of warfare and the notion of the warrior.<sup>4</sup> These arguments focus on two aspects: how some aspects of new technologies will change the playing field and the conduct of war; and whether new technologies can ever substitute for or behave in a similar moral, ethical, and legal way as that of a human.

In considering technological capabilities, opponents have focused on four specific facets of this technology. First, they consider ethical quandaries arising from its ability to target precisely (that is, viewing it as a new type of precision-guided munition). They have asked whether resultant actions truly are those of national self-defense, or whether they are, in fact, extrajudicial killings or assassinations. Second, they have considered its ability to establish a combat environment in which the adversary is unable to respond or reciprocate with violence (thus raising questions of cruelty and disproportionality). Third, they have looked at the fact that these weapons are faster and less obtrusive to use than conventional military deployments, thus increasing the likelihood that they would be used in covert activity-type scenarios. Finally, analysts have considered whether such weapons actually are more moral because they can easily discriminate between civilians and armed military personnel. These facets of the technology have led legal analysts to ask whether technical specifications of the weapons themselves make them incompatible with existing ethical and legal frameworks, including: the Law of War and the Law of Armed Conflict (LOAC), UN treaties and

conventions, and the beliefs of those in the field of human rights (see Table 2).

Technological aspects of drones	Related ethical questions
<p style="text-align: center;"><b>PRECISE</b></p>	<p><b>Ability to easily target an adversary raises issues of:</b></p> <ul style="list-style-type: none"> <li>• targeted killing, assassination</li> <li>• extra-judicial killing vs. self-defense</li> <li>• preemptive killing</li> </ul> <p><b>However, may also prevent a conflict from escalating to conventional war.</b></p>
<p style="text-align: center;"><b>SAFE</b></p>	<p><b>Enemy cannot immediately retaliate:</b></p> <ul style="list-style-type: none"> <li>• Raises Issue of Cruelty</li> <li>• Issue of Disproportionality</li> </ul>
<p style="text-align: center;"><b>CHEAP, FAST</b></p>	<p><b>Do not require large-scale conventional mobilization:</b></p> <ul style="list-style-type: none"> <li>• Facilitates use of covert options</li> <li>• May create increasing “conditions short of war” (<i>jus ad vim</i>)</li> </ul>
<p style="text-align: center;"><b>ABLE TO DISCRIMINATE</b></p>	<p><b>IF you believe this exists, drones are an ethical advance.</b></p> <p><b>IF you dispute this claim, they are more dangerous.</b></p>

**Table 2. Technological Aspects of Drones and Related Ethical Issues.**

These technological arguments about drones actually rest on two different philosophical stances. The utilitarian stance assumes that an ethical problem can be solved in the same way as a math problem. One can add up the costs and benefits of various policies in order to arrive at the solution that creates the least harm while providing the greatest benefit. Analysts ask, “What are the specific costs associated with

deployment/existence of these technologies? Do these technologies make the overall human costs of war higher or lower?"

However, other analysts (and activists) advance a "difference argument."<sup>5</sup> This stance assumes that there is something fundamentally different about UAVs that distinguishes them from previous categories of weapons. The assumption is that these new weapons alter the nature of conflict itself in such a way that it no longer can be carried out within norms and constraints that serve to limit it or render it humane. Thus, it is impossible to argue for its ethicality. Difference arguments were previously made by those who advocated outlawing nuclear weapons and biological and/or chemical weapons.<sup>6</sup> In each case, proponents argued that facets of these weapons – the sheer amount of damage and world-ending potential of a nuclear weapon<sup>7</sup> or the sheer amount of human suffering produced by a biological weapon – rendered it fundamentally different from all other weapons. In both the biological and the nuclear examples, the phrase "uncivilized" was used to describe why no reasonable or ethical individual would choose to utilize such a weapon.

Difference argument proponents find drones unethical, even if they are never used, since it is their existence rather than a specific activity carried out which is problematic. This argument is absolute and one cannot identify any good situations or good scenarios in which such a weapon ethically could still be used. The only possible resolution in such a situation is the banning of this class of weapons such that they should no longer be developed, held, or deployed. This is the argument that Jonathan Granoff makes currently,<sup>8</sup> and the argument in Reinhold Niebuhr's writing about the atom bomb.<sup>9</sup> Pacifist arguments about drones, including the

arguments of Mennonite groups in England and the United States, also fit into this category of argument.

The second group of arguments focuses not on specific technical facets of the weapons themselves, but rather on the identity questions posed by the existence and deployment of such weapons. Activists using this framework pose questions such as: “What sort of a person, warrior, or society uses these weapons?” and “Does using autonomous or unmanned weapons conflict with the warrior ethos?” Key concepts include: the warrior code, honor, agency, bravery, heroism, risk, guilt, remorse, and emotions. This stance is derived from the writings of Patrick Lin, Peter Olsthoorn, and Jessica Wolfendale—academicians concerned with medicine, psychology, and the ethics of technology.<sup>10</sup> Identity arguments lead to policy prescriptions that are absolutist; one either is or is not the kind of person or society that uses drones, regardless of the circumstances or the type of conflict. In this framework, the decision to use drones is said to reflect one’s character and values, and the decision thus is based not on the specifics of a set of circumstances. At base, these arguments derive from the philosophical school known as Virtue Ethics, and from Aristotle’s writing on the ethics of virtue.<sup>11</sup>

Identity arguments focus on three questions: first, analysts and activists ask, “What are the qualities of an honorable warrior, and are those reconcilable with the the use of drones?” Next, they ask, “What are the qualities of a dishonorable warrior, and does the use of drones somehow convey or create dishonor?” Proponents believe that the decision to use these weapons could taint the character of the warrior, the organization, or the nation that does so. Thus, these weapons have been described as “the symbol of an arrogant

reprobate superpower dating back to the days of the Ugly American.” Kenneth Anderson notes they may be regarded as illegitimate weapons used by those who know that their cause is illegitimate.<sup>12</sup> For activists adopting this framework, the drone primarily is a symbol that conveys a certain meaning. Thus, they ask, “What does it say about me and my nation that I would choose to use an autonomous weapon in an asymmetric fashion, and what is the moral/ethical meaning attached to that action? Is using a weapon that puts my opponent at great risk while lessening my own a cowardly action or could it be perceived as such? How does the use of these weapons impact my personal reputation, the reputation of America’s armed services, or the reputation of the United States?”

Finally, those concerned with identity raise a third issue referred to as the humane/humanity issue: The question is, “Who is doing the killing?” Proponents thus suggest that, if UAVs are not manned by humans, then their use can never be described as honorable or humane since those are qualities attached only to human beings. Analysts concerned with this question have disagreed about whether one could, in theory, create a “virtuous drone” that could behave according to a warrior code through making programming decisions which would allow artificial intelligence (AI) to make moral decisions – or whether a “virtuous drone” is an oxymoron.

Table 3 describes the various ethical queries related to the problem of identity.

Identity Aspects	Related Ethical Questions
<b>The Virtuous Warrior</b>	Can the use of drones be reconciled with the notion of an honorable warrior?
<b>The Dishonorable Warrior</b>	Is there something specific about using an UAV that creates dishonor or an impression of dishonor?
<b>Human/Humane Argument</b>	In what ways is the ability to inflict damage without creating a relationship between the warrior and his adversary ethically problematic?

**Table 3. Identity Aspects of Drones and Related Ethical Queries.**

The next set of activists is concerned primarily with **the relationship that one creates with one’s adversary (either an individual or a nation or group) through choosing to fight using this type of weaponry.** This set of arguments draws upon the philosophical subfield of ontology defined as the “study or concern about what kinds of things exist.”<sup>13</sup> Many of the concerns regarding the autonomy aspect of unmanned weapons and the ways in which autonomy relies on AI are ontological concerns, since analysts are asking: “Can we make a computer which is fully human?” or “Can we make a computer which is close enough to a human that it could be substituted for a human and in what ways?” These questions range from quite mundane to quite profound. The simplest question is whether a robot could learn to calculate things like proportionality or assess independently the legality of an action or order. More profound questions include what it means to be autonomous, and what the inherent limits are of a robot in terms of its ability to think and act morally and ethically in combat. Can a computer really ever

substitute for a human on the battlefield in terms of its ability to behave as a moral agent?

Activists using this line of argumentation draw upon the work of ethicists who have asked, “How does my use of a nonhuman drone change my relationship with my adversaries?” and “Is it ‘disrespectful’ to kill someone with a drone?” Analysts whose work deals primarily with these questions include Peter Asaro, Robert Sparrow, and Albert Bandura, as well as Deborah G. Johnson and Merel Noorman.<sup>14</sup> The key concepts are human rights, the philosophical concept of respect, mutual vulnerability, practices of responsibility, and the principle of attribution. Analysts also consider issues such as mourning, humiliation, humanity, and distance, as well as the potential to dehumanize one’s enemy (see Table 4). These arguments often draw upon David Grossman’s seminal work, *On Killing*, which examines the relationship created between soldiers when they battle one another in conflict, as well as the emotional consequences of that relationship.<sup>15</sup> Arguments about the relationships created through UAVs rest on older arguments. Anthony C. Grayling (author of *Among the Dead Cities*) meditates on the ways in which new technologies enabled the Allies to carry out large-scale aerial bombardment campaigns during World War II and the ethical questions that these campaigns raised.<sup>16</sup>

<b>Relationship Aspects</b>	<b>Related Ethical Questions</b>
<b>Witness, Mourning</b>	Can a drone witness a death in the same way that a soldier can?
<b>Remorse, Guilt, Anguish</b>	Can a drone feel remorse in the same way that a soldier might?
<b>Responsibility</b>	Can a drone take responsibility; or be held responsible for a death?
<b>Limits of Machine Learning</b>	Can a drone be taught to think ethically?

**Table 4. Relationship Aspects of Drones and Related Ethical Queries.**

A fourth set of arguments asks how UAV technologies **will affect the international system as a whole in the long-term**. Analysts ask, “Will states go to war more often if the risks are lowered?” In addition, they consider how technologies develop and the ways in which using drones for surveillance affects society in the long term. Key ideas that analysts rely upon in this ethical framework include conventions and norms, as well as facets of international law.

Finally, analysts have considered how developments in the field of unmanned warfare make organizations and nations more likely to adopt certain types of tactics that can be seen as unethical. The major concepts invoked are the LOAC and principles such as national sovereignty. Analysts argue that the availability of weapons like unmanned aerial drones serve to facilitate the conduct of covert warfare or increase the likelihood that a state could prosecute a conflict without ever declaring war. Military strategists and legal analysts describe these types of arguments.

We will now consider each of these types of arguments in turn.

## TECHNOLOGICAL ARGUMENTS ABOUT DRONES

Drones are really only good at targeted killings and that is something that German soldiers will not engage with.<sup>17</sup>

A preemptive prohibition on the development and use of these weapons is needed.<sup>18</sup>

The first set of ethical arguments about drones focuses on technology. Activists who highlight the technological aspects of drone warfare do so based on the assumption that technological specifications – such as the ability to fire very precisely – go on to affect what the planners see as possible or desirable in warfare. That is, they argue that specifications can force planners and decision-makers to adopt some strategies or tactics over others. In this way, these anti-drone activists resemble gun control activists in the United States because they believe that there is something particular about **this weapon** that is dangerous. Therefore, they argue, such weapons should be banned because they do not accept the claim that it is possible to modify or regulate these weapons (or the behavior of their users) in such a way as to make the weapons less dangerous. These advocates reject the argument that states or international organizations can create rules for the ethical use of these weapons through, for example, adopting international conventions and national laws. They do not believe that regulatory policies ultimately will be successful in modifying what they see as the ideology or the technological mission of this equipment.

So what technological specifications can be seen as driving military decision-making? First, analysts are

concerned about the fact that drones allow for greater specificity and precision in targeting – and they argue that the ability to engage in targeting with greater precision will lead to an erosion of the distinction between the civilian sphere and the battlefield, a situation which may place civilians at greater risk in the future.<sup>19</sup> Both Human Rights Watch and Harvard Law School’s International Human Rights Clinic (IHRC) argue that such weapons would increase the risk of death or injury to civilians during armed conflict.<sup>20</sup>

Next, analysts raise concerns about proportionality. Traditional Just War thinking declares that a state’s response to an attack on itself must be proportionate, rather than punitive. That is, the state must use only enough force to stop the aggressor’s actions and must not seek to inflict damage beyond that point. However, when one state has a new technological advantage, at least initially, its response seems disproportionate in relation to its adversaries who may not have access to similar technology. Therefore, Granoff suggests that the real ethical issue is not proportionality, but reciprocity, since it is inequitable for one power to have expensive technologies that others do not. In talking both about nuclear weapons and drones, he argues that such weapons are immoral, even if never used, since it is their existence, even in a deterrent capacity, which is problematic. He argues that since states with nuclear weapons can threaten others by creating a power imbalance, these nuclear-armed states can then use the power of that threat to compel other states to act in the interest of the nuclear-armed state. Everyone who is subject to a possible use of these weapons in the future, in a sense, lives under a kind of suspended sentence. Granoff also argues that it is immoral to ask others to live under a nuclear or a drone umbrella when

the citizens of the well-armed country do not have to live under the same threat.<sup>21</sup> Thus, the UAV becomes a type of terrorist.

A related problem is that of **cruelty**. In Britain, this argument has found resonance. Consider the statement made by British Lord Bingham in 2009, in which he noted:

From time to time in the history of international law various weapons have been thought to be so cruel as to be beyond the pale of human tolerance. I think cluster bombs and landmines are the most recent examples. It may be . . . . That unmanned drones that fall on a house full of civilians [are] a weapon the international community should decide should not be used.<sup>22</sup>

Bingham identifies drones as belonging to a category of weapons that has been prohibited in the conduct of warfare – first through customary international law and later through the 1977 Additional Protocol to the Geneva Convention of 1949. The protocol specifically limits the use of weapons and methods of warfare “of a nature to cause superfluous injury and unnecessary suffering.”<sup>23</sup> Weapons in this category include poison, explosive bullets, chemical weapons, and landmines. A member of the Quaker faith expresses similar sentiments in a letter to the editor of *The Friend*, noting, “The pressing of a button to send a drone to destroy a target, killing innocent people, too, including children, is as barbaric, to me, as the cruel beheading of hostages.”<sup>24</sup>

The next technological facet of drone technology that is seen as ethically problematic is its **cheapness and ease of use**. Pacifist groups, including religious ones, argue that technologies that make war faster, cheaper, and safer will lessen the moral imperative to

avoid war. Instead, such groups point to the danger of an arms race where each side will attempt to amass a larger number of weapons than its opponents. They argue that, since defense spending always “robs” social spending and, thus, has opportunity costs associated with it, and since amassing a large stockpile of weapons eventually may make the temptation to go to war greater, the most logical solution is to ban all weapons. We can identify similar thinking in the current Campaign to Stop Killer Robots. This group points to the problem of proliferation and the possibility of a future robotic arms race that particularly would be difficult for developing nations to engage in without increasing defense spending at the expense of other societal sectors.<sup>25</sup>

Like older pacifist groups that campaigned against conventional weapons in World War I, the present-day Campaign to Stop Killer Robots notes that “replacing human troops with machines could make the decisions to go to war easier, which would shift the burden of armed conflict further onto civilians.”<sup>26</sup> The **precision strikes** and **relative safety in which drone operators carry out their missions** are seen as problematic, since it is easy for both warfighters and the public to forget about the actual costs of war. In addition, Anderson notes that the ability to carry out a discrete drone strike facilitates decision-making in which the warfighter sees a particular decision only in its own specific context without being aware of a larger context, such as the surrounding area, the larger political conflict, or the values that the conflict is meant to be upholding. He notes, in particular, that the individual who launches a drone strike asks only a very specific battery of questions, such as “Is it a civilian? Is it holding a gun?”<sup>27</sup> Again, these questions may be understood as virtue

ethics questions since they are really questions about the characters of the states and warfighters themselves, who may choose to think differently about conflicts in which they do not physically participate, including a decision to dehumanize one's opponents or to treat the conflict as a sort of joystick-video game interaction.

Finally, analysts have raised questions about the fact that drone strikes **can be carried out without a high level of public involvement or transparency**. For example, Richard Adams and Chris Barrie argue that the ease in which a drone may be deployed, not as part of a larger effort but rather on an individual basis, fundamentally changes the nature of warfare. It increasingly is likely that drone strikes will take place as part of a planned covert activity that does not require transparency or the involvement of the public. They also worry about the establishment of a system in which killings become routine.<sup>28</sup> Daniel Bell notes as well that the ability to act quickly may lead inevitably to a system where nations are more likely to act swiftly and preemptively, and the ability to carry out discrete activities, such as a single killing, inevitably may lead to a great amount of covert activity and less transparency.<sup>29</sup> Finally, Noel Sharkey has pointed to a 2010 report to the UN General Assembly, which states that drone strikes violate international law and human rights conventions, noting, "a lack of disclosure gives states a virtual and impermissible license to kill."<sup>30</sup>

Table 5 presents the various types of technological arguments that have been made against drones and their implications.

<b>Technological Facet</b>	<b>Argument</b>	<b>Implications</b>
<b>Discretion/Precision</b>	Technology is/is not sufficiently able to distinguish civilians from combatants	Violates Just War Tenets, International Law, Human Rights Norms on not targeting civilians
<b>Precision</b>	Technology allows us to erase the distinction between what is and is not the battlefield—thus increasing risk to civilians	Violates Laws of War which define the battlefield as the place where war occurs
<b>Proportionality</b>	Technology is disproportionate/punitive in relation to the act itself	Violates Just War Tenets, International Law
<b>Proportionality/Cruelty</b>	Some weapons/technologies are uncivilized, “beyond the pale”	Violates International Humanitarian Law
<b>Cheapness</b>	Drones reduce both absolute monetary and human costs of war, thus paradoxically making it more likely	Violates “last resort” condition of Just War
<b>Cheap/Fast</b>	Drones allow for strikes to be conducted secretly and covertly—as opposed to a mass military action which would be public in nature/banality, bureaucratization of warfare	Violates Hague Convention International Protocol for Declaring War

**Table 5. Technological Arguments against Drones.**

### **Responding to These Arguments**

How should U.S. military planners respond to specific ethical arguments that seem to point to recommendations for a ban on UAVs? It is clear that these arguments are well thought-out, coherent, and based

on sound logic. However, this does not mean that one cannot advance a counterargument.

The starting point for a counterargument should be to **challenge the assumption that technology has an ideology or that it necessarily means a specific thing.** Here one might refer to the arguments of Maine et al., who note that, when new technologies are introduced into the conduct of warfare, it is common for policymakers and others to disagree about the ethical issues that arise. However, they argue that over time, international communities and military communities often are able to come to a new understanding regarding the specific ethical challenges posed by a new technology and are able to come up with legal and normative understandings that serve to mitigate or solve these ethical dilemmas. (They point to the development of aerial combat as well as the development of nuclear technologies.)

Policymakers might also cite James Jay Carafano, who argues that:

Technology does not win wars. It does not lose wars. It does not even fight wars. People do. . . . New technologies pose far fewer new ethical challenges to warfare than is often supposed.<sup>31</sup>

In this work, Carafano suggests that what look like ethical discussions actually are military-strategical technical discussions about the capabilities of various weapons. Thus, based on his arguments, military decision-makers could and should challenge the assumption that technology makes people do things or choose things, such as compelling decision-makers to reach a certain conclusion about how to deploy these weapons. Instead, decision-makers need to point out that individuals and states have the ability to choose how to use technologies.

Similarly, David Fischler wrote the following about nuclear weapons:

Possession of nuclear weapons, then, is not inherently immoral. Possession may facilitate the demonstration of the user's immorality, but in and of themselves nuclear weapons are nothing more than mechanisms for the expression of human ideas and emotions. To say that there is nothing inherently immoral about nuclear weapons does not, however, establish that we are justified in having them. One does not keep dynamite in the house in order to ward off burglars when a pistol would do as well. One is, after all, as likely to blow up the house as protect it when the weapon is out of proportion to any conceivable threat.<sup>32</sup>

Thus, we can draw a parallel between his argument and that of Maine et al., who suggest that the question of whether a technologically advanced state should inflict a disproportionate response (such as deploying a "swarm" of drones) is really a question of virtue ethics. The individual needs to ask himself or herself, "What would the right thing be to do in this situation?"<sup>33</sup> Thus, the proportionality question becomes not a matter of technological specifications, but rather of identity ethics, since the ethics question revolves not around the specifications of the weapons, but rather about "What sort of a person or state would choose to develop, hold, or utilize these weapons, given what we know about proportionality and reciprocity?" This identity question is discussed later in this Letort Paper.

In responding to criticisms about the immorality of a particular technology, policymakers might also consider Peter Singer's work, since he famously has argued that humans ultimately decide what a technology means and how it will be used. He argues that no weapon inherently is immoral, and that, indeed, a

designer has the unique ability to shape what a technology becomes, in some instances even assuring that it will be more, rather than less, moral. He notes designers can make decisions that guide the ways in which these technologies are deployed, including the ability to make some kinds of deployment more likely and other types impossible. He argues that designers can ask ethical questions, such as “What attributes should one design into a new technology, such as its weaponization, autonomy, or intelligence? What attributes should be limited or avoided?”<sup>34</sup>

Figure 1 presents some specific guidance for creating a response to these types of anti-drone arguments.

- Response Guidance
1. Challenge the assumption that technology has an ideology. (i.e., The internet represents democracy; drones represent offensive aggression.)
  2. Challenge the assumption that technology makes people do things or choose things. Instead, point out that individuals and states have agency to choose how to use technologies.
  3. Interrogate the assumption that the only way to prevent certain outcomes is to ban certain technologies.
  4. Engage with the difference between weapons, which are indiscriminate and which are cruel (i.e., engendering needless suffering), pointing out that drones are neither indiscriminate nor cruel.
  5. However, acknowledge that some technologies make some types of activities (strategies, tactics) more or less likely.
  6. Be willing to discuss the sorts of national or international standards or safeguards that will affect how these weapons are used and articulate the U.S. commitment to pursuing regulations.

**Figure 1. Suggestions for Military Decision-Makers in Responding to Arguments about Technological Facets of Drone Technology.**

## IDENTITY ARGUMENTS ABOUT DRONES

At one stroke, the drone has destroyed any positive image of the United States in the countries over which it operates. It has contributed to the destruction of the tribal codes of honor, such as Pukhtunwali among the Pukhtun tribes of Afghanistan and Pakistan. And this immorality and destructive nature reflects back on those who use it, harming the warrior ethic of the American military so critical to battlefield bonding among soldiers in combat.<sup>35</sup>

The second set of ethical arguments comes from the philosophical tradition of virtue ethics. Ethicists and activists taking this stance do not seek a mere solution set to the problem of drones that would reduce casualties and costs; instead, they ask “What choices regarding the creation or deployment of UAVs would be in keeping with my values and the values of my organization?”

Olsthoorn describes a virtue as “a trait of character worth having, not to be understood as an inherited or God-given quality, but as something that can be acquired, mainly through training and practice.”<sup>36</sup> Within the U.S. military, as Shannon French points out in Lin et al., warfighters acquire certain values such as duty and honor through socialization, education, and practice. Warfighters grow to understand and accept the moral significance of their actions and integrate that knowledge into their own self-concepts. As stated in Lin et al.:

Warriors exercise the power to take or save lives, order others to take or save lives and lead or send others to their deaths. If they take this awesome responsibility too lightly—if they lose sight of the moral significance of their actions—they risk losing their humanity and the ability to flourish in human society.<sup>37</sup>

Similarly, Thomas McDonnell introduces the notion of chivalry,<sup>38</sup> defined as a principle based on “mutual respect and reciprocity between adversaries sharing the same or similar traditions and subjected to the same dangers on the battlefield.”<sup>39</sup> McDonnell suggests that both individual warriors and states can inflict damage without themselves being subject to damage through conducting drone strikes, which represents a violation of the warrior code’s emphasis on chivalry. Thus, someone or some nation using drones can be described as cowardly or as constructing a situation in which the strong are taking advantage of the weak.

In this framework, then, actions are associated with values, and the assumption is that, ideally, individuals and states would create situations in which their actions and their values are aligned. For this reason, soldiers are trained in processes such as the LOAC and legally may be held liable if they violate these laws during a conflict. Jessica Wolfendale suggests, “The ideal of the good war fighter involves not only technical skills but also moral virtues.”<sup>40</sup>

Thus, questions about virtue ethics give rise to three separate but interrelated queries:

1. How does the use of drones affect the individual warfighter and his identity?
2. How does the use of drones affect the nation and its identity?
3. Is it possible to separate individual moral thinking from “thinking” by a weapon? That is, if we envision a situation someday in which drones can act as fully autonomous agents in making decisions about the conduct of warfare without human influence, can one ever speak of a drone acting autonomously as a “warrior” or as “one

who possesses warrior ethics"? Can a machine be taught to think morally or virtuously, according to a warrior code?<sup>41</sup>

Thus, the first query asks whether drones help create situations where individual soldiers and states act in ways which are not aligned with their professional or historic values, or where the disconnect between their values and their activities is great enough that it threatens their legitimacy and integrity. In its most stark form, the argument (as put forth by the Australian academic Natalie Dalziel) is that drone strikes are a form of terrorism defined as sudden and disproportionate symbolic violence deployed to intimidate those who would witness it, and that those who engage in it are terrorists.<sup>42</sup> A statement like this calls into question the whole U.S. military enterprise, since the military virtues of honor and integrity are what create the difference between socially and ethically sanctioned killing in war, versus murder.

Arguments at the interstate level ask how the U.S. decision to engage in drone strike activity could undermine its claims regarding its role as a democratic leader in the international system. Many of those who have opposed U.S. drone strikes have accused the United States of knowingly engaging in behavior regarded as illegitimate, unlawful, or immoral. As a result, some analysts suggest that the nation's image can become tainted within the international community through being associated with unsavory practices.<sup>43</sup> Consider how America's national image may have been marred due to accusations related to its drone practices—specifically, accusations that the United States has engaged in lying, has acted like a bully, and has engaged in assassinations. In the recent past, the United States has been accused of lying or exaggerating its claim that it is lawful to engage in targeted drone strikes in Pakistan,

for example, because of a need for self-defense against terrorists and insurgents.<sup>44</sup> That is, legally a nation is allowed to engage in preemptive strikes against a target for means of self-defense, but the claim is disputed that the United States actually felt it to be in imminent danger from the individuals whom it targeted. The United States also has been accused of lying when it claimed that those killed in drone attacks have been specific insurgents and rebels, and not merely innocent bystanders.<sup>45</sup> Others have implied that the United States has acted as a bully, killing defenseless civilians<sup>46</sup> and invading the sovereignty of other nations though carrying out airstrikes in their airspace.

Finally, some analysts have constructed virtue ethics arguments specifically related to the quality of autonomy. Here scientists ask whether one could create in an artificially intelligent weapon that could stand in for a human as a moral agent, making a moral decision regarding whether to engage in a specific behavior. In her work, Jamie Allinson speaks of the “sovereign’s right both to command death and to assign grievable meaning to the dead,” and suggests that there may come a time in the future when a state might arrogate those rights to a piece of technology instead.<sup>47</sup> Others have asked whether, at some point in the future, one could create a “virtuous drone” which could be trained in laws and ethics, taught to make moral decisions, and held responsible for its actions during wartime.<sup>48</sup> Can one actually create a moral algorithm and reasonably speak of war as a moral enterprise when the individuals who possess the moral conscience are removed from the enterprise?

Analysts are divided about whether the ability to create a moral or virtuous robot is something that is either possible or desirable. At one end of the spectrum, Ronald Arkin speaks of an “ethical governor”

or an algorithm that could be written to allow robots to learn to think morally. He argues that code could build in constraints such as the Law of War and Rules of Engagement, such that weapons would be able to evaluate a situation and see if certain actions were allowable. In addition, he argues that a weapon could learn to evaluate the proportionality of an action.<sup>49</sup> Arkin also famously suggested that a robot could learn to experience sympathy and guilt.<sup>50</sup> In his view, it is incorrect to say that a warrior was not virtuous just because that warrior was a robot.

However, at the other end of the spectrum are those who believe that a moral or virtuous robot is an oxymoron. Wolfendale argues that a moral warrior must experience guilt and remorse in combat, since a moral agent needs to have the ability to reflect on his or her actions critically. Although Wolfendale was not writing about drone combat, but rather about whether individual soldiers might be given pharmaceuticals to dull or deaden their emotions in combat, her argument may be extended to thinking about drone warfare as well. She argues that moral reasoning rests on one's emotional reactions to a situation, and that lessening one's emotions necessarily will lessen one's ability to reason morally.<sup>51</sup> Thus, a drone that cannot experience emotions also cannot engage in critical reflection that Wolfendale sees as necessary for one to be truly virtuous. Similarly, Dennett argues that for a robot to be a moral agent, it would have to have a past, would have to be able to exhibit consciousness, and have a conscious moral understanding of its choices. Dennett raises similar issues and asks whether a robot could ever really understand what it means to kill a person or the opportunity costs involved in such an action.<sup>52</sup> Similarly, Purves et al. argue that "moral judgement is not codifiable, i.e., it cannot be captured by a list of

rules." Purves et al. note that a machine cannot reflect upon its actions in the same way as a human since it does not possess a "moral imagination, or the ability to have moral experiences with a particular phenomenological character."<sup>53</sup> Finally, as Sharkey has argued, "a machine cannot exercise mercy or act humanely." He notes:

To be humane is, by definition, to be characterized by kindness, mercy, and sympathy. . . . These are all human attributes that are not appropriate in a discussion of software for controlling mechanical devices.<sup>54</sup>

He disagrees with Arkin, who feels that robots could be taught/programmed to demonstrate sympathy and guilt.<sup>55</sup>

Finally, Purves et al. raise the question of right intention, the moral principle of Just War theorizing, which suggests that, in a just war, one goes to war only for the "right reasons," such as self-defense or to right a moral wrong, rather than for the wrong reasons such as racism, a desire for revenge, or greed. Purves et al. suggest that it is meaningless to argue that a computerized drone would be able to calculate whether it possessed the "right intention," asking instead whether a computer can even be said to have an intention or wish to protect someone.<sup>56</sup> However, like Singer, others have argued that since a robot does not possess emotions, it will never go to war for the wrong intention, since it would be incapable of wishing, for example, to inflict revenge on an enemy.<sup>57</sup>

As Table 6 indicates, each of the "identity arguments" starts from the assumption that a warrior is more than the sum of his or her specific actions, and that the goodness of one's actions therefore cannot be derived by simply adding up the costs and benefits of a particular tactic or strategy. Rather, the implication is

that each of these actions together speaks to the character of the actor, whether we are talking about an individual or a state. Individual character or the character of the state rests on the individual’s activities as well as how those who witness them perceived these activities. Because activities represent one’s character, it thus is impossible for a machine to substitute for a human being, since ultimately it is nonsensical to talk about the moral character of a machine, according to this particular set of arguments.

<b>Argument</b>	<b>Implications</b>
Drone strikes are a form of terrorism	Undermines the U.S. national reputation internationally. Harms an individual soldier’s self-image.
Drone strikes are not an honorable form of warfare	Violates the principles of reciprocity, mutual injuring, risk, norm of “chivalry.” May harm morale in unit, may harm soldier psychologically.
Covert activities are incompatible with the nature of deliberate democracy	Harms U.S. legitimacy in international system.
Covert activities are unlawful	The United States is viewed as not respecting rule of law.
Drone strikes are a form of assassination	Violates international military norm of chivalry. Violates international Law.
A machine can never replicate the Warrior Code	Technology is fundamentally incompatible with many norms of warfare.
A machine can never understand the moral repercussions of its actions because it lacks self-reflective capacity	Technology is fundamentally incompatible with virtue ethics.

**Table 6. Identity/Virtue Ethics Arguments about Drones.**

## Responding to These Arguments

In conflating drone attacks with such moral failings as lying, cowardice, and bullying on both the individual and state levels, analysts and activists argue that military values and the use of drone technology fundamentally are incompatible. In this view, the use of such technologies often cannot be reconciled with the notion of the virtuous warrior.

However, at least one analyst has refuted this claim. In a 2014 article in the *Air & Space Power Journal*, Joseph Chapa suggests in situations where one encounters a media report on the use of drones that emphasizes some sort of moral or ethical failure, this is because the media has made a decision to cover a story about the use of UAVs in a particular way. That is, foreign and domestic media have made a decision to draw a line between the use of this technology and certain behaviors in which it chooses to portray them as incompatible with honorable behavior. He refutes, for example, the notion of a “video game warrior” who blithely kills the enemy from halfway across the world without investing morally, intellectually, or ethically in the activities that he is carrying out.<sup>58</sup> Chapa argues that it is not inevitable that U.S. actions and activities in drone warfare would be viewed or interpreted in a dishonorable way.

In addition, Caroline Kennedy and James Rogers have questioned whether it is logical to talk about the moral character of a drone. Using a situational ethics perspective (rather than a virtue ethics perspective), they note that it makes more sense to speak about the ethics of a drone’s actions in a particular situation. They note that, just as we distinguish between the soldier and the soldier’s actions—granting that a

soldier behaved virtuously in this instance but not in that instance—so, too, can we distinguish between the character and actions of the drone. Thus, they argue a drone or robot participating in an unlawful campaign of extrajudicial killing might be labeled as an ethically problematic warrior, while a drone deployed on a peacekeeping mission might be described as virtuous.<sup>59</sup>

These types of arguments may make it particularly hard for military leaders to understand or respond to claims that drones are somehow cowardly or against military values. Figure 2 presents some guidance for military leaders wishing to write a response to these specific types of arguments.

Response Guidance
1. Draw upon history to note that many new technologies were regarded as dishonorable and illegitimate when they were first introduced.
2. Engage with the question of what makes a technology humane or inhumane: Distinguish between technologies that are cruel and dishonorable, which should be banned and which should not.
3. Strive to portray the thoughtful engagement of military personnel who work with UAVs, emphasizing their training, maturity, and ability to engage in critical self-reflection.
4. Make the distinction between virtuous character and virtuous actions - not conflating all drone uses as being the same.

**Figure 2. Suggestions for Military Decision-Makers in Responding to Arguments about Virtue, Honor, and the Use of Drone Technology.**

## ARGUMENTS ABOUT RELATIONSHIPS

Machines or systems tasked with making fully autonomous decisions on life and death without any human intervention, were they to be developed, would

be in breach of international humanitarian law, unethical and would possibly even pose a risk to humanity itself.<sup>60</sup>

The next set of arguments considers relationships created between warriors and their adversaries, and the ways in which this relationship might be altered and shaped because of its mitigation through technology. In recent years, these arguments have grown in importance. Many view them as the most compelling set of ethical arguments against the technology.

These relational arguments are not new or unique, and analysts have asked the same questions about the ethics of conventional war. The starting point for a relational argument is the writing of Lieutenant Colonel David Grossman, a psychologist, whose work *On Killing* asks how combat participants themselves make sense of their actions in ethical and moral terms. Grossman draws attention to “distancing technologies,” which he states may affect how soldiers think about killing as well as affecting how they adjust in the long term to the activities that they have carried out.

The ethical principle at the heart of all the arguments discussed here is respect. As the *Stanford Encyclopedia of Philosophy* notes:

Respect is a particular mode of apprehending the object: the person who respects something pays attention to it and perceives it differently from someone who does not and responds to it in light of that perception.<sup>61</sup>

In this definition, one can respect an individual or entity even if one does not approve of or agree with the opponent since respect has to do with regarding the other and acknowledging his or her humanity. (Respect comes from the Latin term *respicere*: to look back at, or to look again.)<sup>62</sup> The principle that a person

automatically is entitled to be treated with respect by virtue of their humanity is traced to Kant's categorical imperative that states that one should not treat one's fellow man merely as a means to a particular end, but that one should acknowledge his or her intrinsic worth and humanity.<sup>63</sup> That is, even if one does not agree with their enemy's beliefs, values, culture, or way of life, the principles of respect and dignity mean that we do not attempt to humiliate or shame our enemies through practices like defiling the corpses of enemy soldiers, humiliating prisoners of war, or urinating on the Koran. The principle of respect says, "Although you are my enemy, I still accept that you have intrinsic human worth and dignity and I, as a human, am required to acknowledge your own humanity and dignity." Olsthoorn in particular sets up a dichotomy between humanization and humiliation in which one humanizes another by finding common ground with him and attempting to reduce the distance between oneself and the other.<sup>64</sup>

The principle of respect forms the basis for much of our thinking about war crimes, as well as what constitutes a war crime. The question for ethicists is, "Do technologies that distance the warfighter from his opponent automatically create the conditions for him or her to regard the adversary as somehow less human or less than human?" (Grossman suggests that the opposite of respect is dehumanization).<sup>65</sup> Ethicist Mark Coeckelbergh notes that the tendency to treat things with less respect when they are distant is not new, and the fear that new technologies will make killing easier through increasing the distance between oneself and the opponent also is not new. He draws a line back to aerial bombardment campaigns conducted during World War II and goes on to quote another British

ethicist, Noel Sharkey, who draws the line much further back, noting that ever since the creation of the bow and arrow, man has succeeded in distancing himself both physically and psychologically from his prey.<sup>66</sup> As a result, he argues, distancing technologies rob the warrior of empathy since he no longer has specific knowledge regarding the casualties that he has created. Today's "drone warrior" may not know his enemy's name or even how many specific humans he has killed—any more than the individual who dropped a bomb on Hiroshima, Japan, or who participated in the aerial bombardment campaign against Hamburg, Germany, in World War II did.<sup>67</sup> As a result of this distance and lack of knowledge, one can argue that the warrior, therefore, is unable to behave in an autonomous and agentic way in which he is aware of the moral consequences of his actions. Nonetheless, he is able to choose killing as a morally desirable action, which he has thought through carefully and considered in light of all the information. Thus, even if the warrior wishes to behave in a moral way, he or she is unable to do so because of the situation created by a reliance on autonomous technology.

In addition, as Coeckelbergh and others have argued,<sup>68</sup> such technologies violate the ethical principles put forth by philosopher Emmanuel Levinas, who has argued that our duty to our fellow man primarily is understood as being an encounter with the face of the other, whereby we acknowledge our duty to him. Levinas states that we are called to see the face of the other, who asks, in simplest terms, "don't kill me." Olsthoorn refers to the ability of the ethical warrior to make an autonomous decision to exercise mercy and restraint when he encounters the enemy intimately in a combat situation.

The question then becomes how one truly can “see the face of the other” or exercise mercy and restraint in the less intimate and more distant situation created by reliance upon the drone.<sup>69</sup> The respect approach to ethics sees the distance provided through the drone not as simply a force multiplier that makes it easier to kill others while lowering your own transaction costs, a situation that a utilitarian ethicist would approve. Rather, distance is a barrier that prevents one from encountering his fellow man—we cannot see his face. In his work, *Achilles in Vietnam*, psychologist Jonathan Shay draws upon his experiences counseling Vietnam veterans to argue that individuals are harmed psychologically through participating in experiences where they engage disrespectfully with the bodies of their enemies.<sup>70</sup> Thus, technology that allows soldiers to disengage from a respectful and intimate relationship with their adversaries is harmful, not just to the adversary but to the soldier himself.

Ethics arguments acknowledge the damage to the warrior in a situation where he cannot behave humanely, but their real power comes from the ways in which they force readers to consider what it means for the individual who is killed by the drone rather than by a fellow human. Drawing upon a 2007 article by philosopher Robert Sparrow, groups like the Campaign to Stop Killer Robots argue that the most basic human right of all is the right to be killed by another human being, for otherwise, those who are killed are viewed merely as vermin, or as something subhuman whose basic humanity is unacknowledged, even in their deaths. They invoke the principles of respect and dignity, drawing upon the claims of Immanuel Kant, who argued that, regardless of what one has achieved or what level one is at in society, one nonetheless is

owed moral recognition or dignity. That is, a human being should always be regarded as a person. It is from this viewpoint that arguments about human rights, including the value of human rights in international law, are made. The principle of respect undergirds arguments about why drone killing constitutes a war crime, while the principle of dignity undergirds arguments about why drone killing constitutes a human rights violation and thus violates international law.

These activists argue that slaughter by an autonomous machine differs from an honorable killing in combat because the drone cannot kill in an atmosphere of respect—through regarding the enemy and acknowledging their humanity, even as one inflicts damage upon them. They argue that a human deserves to be killed by someone who understands and marks the moral significance of that act, by someone who mourns or feels guilt and who recognizes the humanity of the enemy. Thus, the activists conclude, the least a human being owes other fellow human beings is the ability to bear witness to a death. (Indeed, this is why we bury the enemy killed in battle, and why we do not desecrate a corpse. In this way, we engage in what Lin refers to as “honoring their enemies.”<sup>71</sup>) Table 7 presents ethical and moral dilemmas presented by automated drone killing.

<b>Relationship Aspects</b>	<b>Related Ethical Questions</b>
<b>Witness, Mourning</b>	Can a drone witness a death in the same way that a soldier can?
<b>Remorse, Guilt, Anguish</b>	Can a drone feel remorse in the same way that a soldier might?
<b>Responsibility</b>	Can a drone take responsibility, or be held responsible for a death?
<b>Limits of Machine Learning</b>	Can a drone be taught to think ethically?

**Table 7. Drones as Moral Agents and Related Ethical Queries.**

Medical ethicist Jessica Wolfendale argues that killing is honorable when it occurs in an atmosphere of respect. In her own work, she questions whether it would ever be appropriate to engage in cognitive enhancement that would allow a human soldier to become numbed to the act of killing through taking a pharmaceutical. She acknowledges that some medical personnel advocate for the development of drugs that would help soldiers not to form memories of killing in order to spare them the burdens of post-traumatic stress. However, she argues that doing so would not allow them to be fully human. Instead, they would be rendered as a sort of killing machine that would inflict damage on others without fully participating in the act of killing. One can build upon her argument in suggesting that fully autonomous drones might act in the same way—extinguishing an opponent without completely acknowledging his or her humanity, without forging a relationship with one’s opponent, and without conveying a relationship of respect.<sup>72</sup>

Although neither Sparrow nor Sharkey make specific religious references in their ethical arguments,

there is a strong precedent in both Christian and Jewish cultural thought for many of the arguments that they make. Recent Jewish holocaust theology speaks of the importance of witness, of remembering those who were killed by the Nazis and of not allowing them to be simply nameless individuals who were dehumanized and died, but rather of insisting upon their humanity.<sup>73</sup> Christian theology speaks of the fact that every individual is made in the image of God (*imago dei*), and therefore, every human life is sacred. Thus, one can argue that allowing someone to be killed in a nameless, faceless fashion by a drone, with their death never recognized, remembered, or mourned by another human being, is a violation of both these Jewish and Christian principles.

However, both Sparrow and Sharkey's work also depend on a second ethical principle beyond that of respect. This is the idea of responsibility. Sparrow ties together the twin concepts of responsibility and respect, noting that in creating a situation where no one is morally responsible for an individual's death, we are "treating our enemy like vermin, as though they may be exterminated without moral regard at all."<sup>74</sup> Sparrow argues that the existence of a responsibility gap in which no one might be held responsible for an automated killing, whether it happens intentionally or by mistake, is reason enough to outlaw these types of technologies.<sup>75</sup>

The "responsibility gap" becomes of particular concern in future scenarios in which unmanned autonomous vehicles might become fully autonomous or automatic in the sense that they could engage in decision-making that would fully remove humans from the decision-making process. Sharkey worries about a future in which humans might be removed from the

loop altogether. He notes that the one-to-one correspondence between the warfighter and an adversary would be eliminated with the advent of new technologies that might allow one warfighter to control a “swarm” of UAVs. In such a scenario, the individual might not know which small UAV was specifically responsible for a death, nor would he feel a sense of personal responsibility for that death. Indeed, events might happen at machine speed rather than human speed, such that the individual would be unable to track which specific actions had occurred, even if there was a desire to do so.<sup>76</sup>

A final set of concerns relates to the ways in which a nation might use drones to carry out constant or near-constant surveillance of another nation’s population, including its civilians, as part of a preemptive security strategy—even if, in fact, drone strikes never occur. Analysts suggest that there is something humiliating or dehumanizing in the relationship between the watcher and the watched. Analysts note that those who are the subjects of this surveillance have not consented to it and may not be aware of its occurrence. In addition, they argue, the implication is that everyone being watched is viewed as being potentially guilty of having committed a crime, or as a possible criminal subject. In this way, UAV surveillance technology creates a hierarchical relationship between the watcher and the watched that is humiliating to the weaker party.<sup>77</sup> It has also been described as being ethically similar to asking someone to live in a situation where there is a loaded gun pointed at his or her head.<sup>78</sup> Again, this is not a new argument. Instead, it is the same argument that was made in regards to asking individuals to live under a so-called nuclear umbrella at the height of the Cold War.<sup>79</sup> The argument here is that individuals who

believe that they might be the subject of a drone strike at any time thus are put through stress and anxiety on a daily basis, even though they may be innocent.

Table 8 provides a summary of the arguments raised in this section.

Argument	Implications
Drones distance the warfighter from his opponent	<ul style="list-style-type: none"> <li>• Lack of respect</li> <li>• Adversary is dehumanized</li> </ul>
Killing is no longer attributable to a specific person	<ul style="list-style-type: none"> <li>• Adversary is humiliated</li> <li>• Adversary is robbed of dignity</li> <li>• International right to be killed by a human; anything less is subhuman</li> </ul>
Killing is no longer an intimate act	<ul style="list-style-type: none"> <li>• Violates principle of chivalry</li> <li>• Lack of witness, remembrance</li> </ul>
Drones allow for constant surveillance of one's adversaries	<ul style="list-style-type: none"> <li>• Threatens adversaries, even when innocent</li> <li>• Creates fear, anxiety</li> </ul>

**Table 8. Ethical Arguments about the Relationship between the State/Warfighter and One's Adversaries.**

### Responding to These Concerns

How should a military leader thus respond to arguments that drone technologies show disrespect and dishonor one's relations with one's opponents? As noted, these particular arguments are likely to resonate with audiences, including civilian populations in many nations that are considering the acquisition and deployment of drones. The claim that drone strikes are merciless and dehumanizing can be illustrated easily through the airing of visual footage of drone strikes, and thus this argument may be particularly compelling

when aired on a television network. This argument has also formed the basis of much of the eyewitness testimony provided in U.S. Congressional Hearings regarding proposed limitations and bans on drones.<sup>80</sup>

One possible line of argumentation involves querying the notion that the “responsibility gap” is something unique to UAV technology. As Purves et al. have pointed out, the problem of responsibility actually exists in all scenarios involving automated and automatic technologies. As they note, a similar problem would exist with the advent of driverless cars. They asked if people would have the same level of moral repugnance toward a scenario where someone was automatically run over by a driverless car, as they would have if someone were automatically killed by an unmanned autonomous vehicle.<sup>81</sup> They note that as automated killing—both intentional and accidental—becomes common, the normative prohibition against these actions may evolve and change. On the other hand, given that people were morally repulsed many years ago by the automated killings landmines carried out, moral prohibition may be permanent.

The American response, however, also should involve active engagement and response to some of the concerns raised by these activists. Concerns simply should not be dismissed. Instead, U.S. policymakers and planners should acknowledge the validity of these concerns and articulate their desire to cooperate with, and even play a leading role in, the development of both national and international constraints and laws, which would prevent the development of fully automated killing scenarios. The U.S. Department of Defense has been part of this effort, as evinced by the 2013 statement that, in the foreseeable future, decision-making

regarding targeting and use of force will be kept under human control.<sup>82</sup>

Within the international community, U.S. policymakers actually may find more common ground with drone opponents than they might expect. It is possible that in the future the United States could take a leading role at international fora like the UN Convention on Conventional Weapons as they work to develop meaningful definitions of contested concepts like “meaningful human control.” Active engagement by U.S. policymakers in these initiatives may help to convince opponents that an outright ban on these weapons is not necessary, since it is possible and desirable to shape strong and meaningful regulatory regimes.

Figure 3 provides some specific guidance that decision-makers can utilize in drafting a response.

Response Guidance
1. Embrace Transparency. Release data on the actual identities and number of casualties of drone strikes as appropriate – as a sign of responsibility and respect to adversary states and the international community. Within the international community, the U.S. Government may wish to take the lead formally in efforts and memorialize the dead – rather than relying on efforts put forth by partisan organizations.
2. Refer to U.S. policies on Command Responsibility, in response to queries about the accountability dilemma in drone practices.
3. Become familiar with the U.S. military policies in place for keeping humans “in the loop” in regard to drone strikes.
4. Emphasize the differences between autonomous, semi-autonomous, and automatic weapons.

**Figure 3. Suggestions for Military Decision-Makers in Responding to Arguments about Drones and their Relationship with One’s Opponents.**

## EFFECTS ON THE INTERNATIONAL SYSTEM IN THE LONG TERM

Drone Strikes outside a declared war by a State on the territory of another state without the consent of the latter or of the United Nations Security Council constitute a violation of international law and of the territorial integrity and sovereignty of that country.<sup>83</sup>

The use of drones by states for targeted killings is being led by the USA [United States of America], and practiced also by Israel and the UK [United Kingdom]. Notoriously, US drone strikes have killed and injured people of nations it is not at war with: Yemen, Somalia, the Philippines, and, principally, Pakistan. The practice is also seriously devaluing international law because the USA refuses to abide by the rules of war and provide information necessary for legal scrutiny. Effective international control measures of drone use, proliferation and development are urgently needed. After 10 years of drone-enabled targeted killings, it is more than time that UN member states responded appropriately.<sup>84</sup>

Pakistan regards such strikes as a violation of its sovereignty and territorial integrity. These strikes also have a negative impact on the government's efforts to bring peace and stability in Pakistan and the region.<sup>85</sup>

The next set of arguments uses a utilitarian or consequentialist framework to consider the long-term consequences for the international system of a shift in U.S. policy to a heavy reliance on drones to solve conflicts. These activists (and, frequently, official government spokespeople) argue that UAV technologies are creating new understandings that threaten to undermine existing norms and practices. As a result, they note that drones can help to create an international system that becomes more dangerous and unstable in the long

run—even as they are being used to prevent or lessen conflict in the short term.

In this framework, international stability and lawfulness is the value that most needs to be preserved. Here, analysts stress that war traditionally has been understood as a set of practices that occur between states, utilizing professional combatants on a clearly defined battlefield,<sup>86</sup> in conditions when war formally has been declared.<sup>87</sup> These understandings have been instrumental in shielding civilians from the effects of war through making a clear distinction between combatants and noncombatants, between the battlefield and the places where civilians live, and between wartime and peacetime conditions. However, anti-drone activists argue that new technologies threaten to erode all of these distinctions—blurring the line between war and peace,<sup>88</sup> between the battlefield and the places where civilians live, and between the activities of professional soldiers and the activities of other practitioners, including intelligence officers and government functionaries.

As a result, according to some analysts, the United States unwittingly also may force its adversaries to undertake different actions on different battlefields. That is, if we deny our adversaries the opportunity to engage in traditional battle on a traditional battlefield against traditional soldiers, then they may transfer the battle to a new front inside the United States. Boyle provides the example of the Times Square bomb attempt by Pakistani American Faisal Shahzad in June 2010 as a situation in which war was brought home to the United States.<sup>89</sup> Thus, the consequences of U.S. reliance on drone strikes will be to increase the threat to civilians both abroad and in the United States.

In addition, it has been argued that U.S. actions taken in utilizing drone strikes, including failure to declare war or to respect the sovereignty of nations where strikes have been carried out, are creating a situation in which the United States appears to be violating international norms with impunity.<sup>90</sup> As a result, argues Christian Enemark, the long-run effect will be a weakening of international norms, such as respect for territorial sovereignty overall. International organizations like the UN will be perceived as weaker if they are seen as unable to regulate or reign in U.S. actions. The implication is that the United States has traded the ability to carry out relatively risk-free, cheap strikes against targets in the short run for the ability to serve as an exemplar and upholder of international norms regarding warfare in the long run.<sup>91</sup> Troy has suggested that U.S. use of precision strikes against terrorists has done much to erode the normative prohibition against assassination, making it more likely that other nations will find it acceptable to engage in this behavior.<sup>92</sup>

In addition, activists and analysts note that using U.S. drones in foreign nations may undermine the host nation's legitimacy through demonstrating that they are weak and unable to handle a problem themselves or to stand up to U.S. pressure. Greg Kennedy points to the likelihood that U.S. drone strikes over Pakistan might undermine its reputation, with the unforeseen effect of leading to increased instability in the international community in the long run.<sup>93</sup> Similarly, Boyle argues that the use of drones in Pakistan suggests to internal Pakistani observers, as well as those outside, that Pakistan's government is weak and unable to handle its own unrest.<sup>94</sup>

Finally, activists note that the covert nature of drone warfare can serve to undermine trust between allies

and within the international system. The nation that acts covertly can be seen as sneaky and untrustworthy, and that reputation can spread into other aspects of relations between allies and adversaries.<sup>95</sup>

Figure 4 presents the arguments raised in this section.

- | Arguments   |
|---|
| 1. Drone strikes erode distinction between civilian/combatant; battlefield/not battlefield; peacetime/war time. |
| 2. Drone strikes undermine the legitimacy of the nation where strikes occur.                                    |
| 3. Drone strikes undermine international norms when the United States is seen to act with impunity.             |
| 4. Drones strikes undermine trust between allies.   |
| 5. Short-term gains are not worth long-term costs.  |

**Figure 4. Ethical Arguments about Drone Effects on the International System.**

## Responding to Criticisms

So how should a military decision-maker or leader respond to arguments about the ways in which the use of drones can change or shape the international system? U.S. military leaders need to be prepared for this situation since this type of ethical argument is common in many places—such as among opposition politicians and citizens in Australia, in Pakistan, and in the UN.

While each of the objections raised above—that drone strikes undermine trust between allies, weaken the reputation of states which serve as the base or site of a drone attack, and weaken the enforcement mechanisms of the international system—are ethical issues, they (like the respect issues referenced earlier) appear

to be solvable through increased regulation and oversight. They are not zero-sum issues (like the virtue issues or technological issues) for which the only possible solution is an outright ban on these weapons.

Thus, the best strategy for U.S. policymakers in responding to these concerns is first to acknowledge them as valid. The United States needs to acknowledge that, at present, what appear to be violations of national sovereignty have occurred. At this point, a number of possible responses could be made.

The most cautious or conciliatory strategy would involve acknowledging that violations had occurred and articulating a desire to work with allies and other parties to find better ways of verifying and responding to violations. In particular, Kennedy has suggested creating a domestic oversight body that would collect the facts and then decide about the legality of drone strikes before authorizing them—in the same way that the foreign intelligence Surveillance Courts judge matters involving the collection of intelligence on American soil.<sup>96</sup> In the future, norms might evolve regarding notification protocols for letting the international community know the conditions under which drone strikes might occur. Finally, as Megan Braun and Daniel Brunstetter point out, there are already specific Just War principles for situations of *jus ad vim* or use of force short of war, which can be drawn upon for making ethical decisions about the proper and improper use of drones in specific conflicts.<sup>97</sup>

A more risky strategy is one in which U.S. policymakers query the notion that existing norms regarding sovereignty and legality are still valid, given the changing environment in today's world. Here, policymakers may wish to note that currently there are many "small wars" and hybrid conflicts that do not fit neatly

into existing international law frameworks. Thus, one could argue that norms are in a period of flux, or even that norms are outdated. Most conflicts today are not between states, most are not declared formally, and most are not ended with an official treaty. Thus, rather than responding to particular legal concerns about particular drone strikes, policymakers may wish to take the offensive through suggesting that norms need to be changing, and the United States should be in the forefront of rewriting and enforcing new norms. Figure 5 presents some guidance on this topic.

Response Guidance
1. Leaders can begin by questioning whether the norms being referenced (such as the combatant/noncombatant distinction and the war/peace distinction) are still relevant given the actions of actors like the Islamic State of Iraq and Syria (ISIS), al Qaeda, and Russia in its invasion of Ukraine. It is suggested that in a changing world where hybrid wars and undeclared wars appear to be the norm, the United States is not violating international norms by merely reacting to other's violations of those norms.
2. Make the argument that norms can evolve and change over time and that they have done so before.
3. Note that norms rest on an agreement between all members to respect such norms - that might not exist at present.
4. Reiterate a desire to work with the international community to come up with Rules of Engagement for conflicts involving drones and to follow those norms once established.

**Figure 5. Suggestions for Military Decision-Makers in Responding to Arguments about Drones' Effects on the International System.**

## DRONES MAKE CERTAIN TACTICS AND STRATEGIES MORE LIKELY

If any major military power pushes ahead with AI weapon development, a global arms race is virtually inevitable, and the endpoint of this technological trajectory is obvious: autonomous weapons will become the Kalashnikovs of tomorrow. Unlike nuclear weapons, they require no costly or hard-to-obtain raw materials, so they will become ubiquitous and cheap for all significant military powers to mass-produce. It will only be a matter of time until they appear on the black market and in the hands of terrorists, dictators wishing to better control their populace, warlords wishing to perpetrate ethnic cleansing, etc. Autonomous weapons are ideal for tasks such as assassinations, destabilizing nations, subduing populations and selectively killing a particular ethnic group.<sup>98</sup>

The last set of ethical arguments is military-strategic in nature. Here, analysts argue that specific facets of UAV technology may facilitate the adoption of particular warfighting tactics and strategies that pose ethical problems of their own. Analysts raise concerns about three possibilities: First, some have argued that the ability of drones to conduct surgical strikes with a high degree of precision may therefore lead states to choose UAV strikes over other types of responses to conflict, including diplomacy. The cheapness and ease of calling for and conducting drone strikes thus might lead to a climate in which the standard response to a conflict is one of preemptively ending it through precision strikes rather than engaging in dialogue and negotiation. Shank refers to “President Obama’s ‘military first’ strategy,” suggesting that the availability of the drone weapon is at least partially responsible for America’s leadership developing a preference

for combat over other forms of international engagement.<sup>99</sup> (It should be noted that Shank is writing for a Quaker organization and his argument echoes other, older pacifist arguments, which raise a warning about the possibility of cheap or easy war and its ability to skew how we think about conflict.)

Second, the reliance on drones as a platform in U.S. counterinsurgency and counterterrorism strategies may have led planners and analysts to ignore other facets of the counterterrorism problem. Specifically, some analysts have argued that planners today may be less concerned with identifying and engaging with the root causes of terrorism, including economic insecurity and state failure, in favor of a more short-term solution of eliminating specific terrorists. In this way, planners are not considering the needs of societies that may be producing terrorists, nor are they responding to those needs of the population in these states, including civilian needs. A counterterrorism strategy that relies heavily on drones thus may cause military personnel to see specific individuals as the causes of terrorism, rather than considering the role of ideas or other factors in creating the problem.<sup>100</sup>

Third, as noted previously, some analysts have suggested that the cheapness and ease with which drone strikes can be carried out has created an orientation toward the use of covert activities carried out by individuals who may not be professional military soldiers. This possibility has implications for the long-run health of the international system, including the preservation of norms regarding the rules of engagement and laws of war, as well as for the long-run health of domestic politics in countries that are considered democracies.

In each of these three scenarios, one can identify individuals who support the assertion as well as those

who do not. However, as Figure 6 shows, all of these arguments might also be labelled as arguments over policy rather than arguments specifically about UAV weapons.

- | <b>Arguments about Strategies and Tactics</b>  |
|--|
| 1. Cheapness and ease of use may cause decision-makers to choose precision strikes over other strategies, including diplomacy.   |
| 2. Over-reliance on drones in counterterrorism strategy may lead policymakers to ignore other long-run problems, like poverty and the rise of ideologies.                                |
| 3. Over-reliance on drones may lead to situations where military actions are not clearly delineated and where they are carried out by a variety of actors, not all of whom are military. |

**Figure 6. Suggestions for Military Decision-Makers in Responding to Arguments about Drones' Effects on Choice of Military Strategy.**

### **Responding to These Concerns**

How should a military decision-maker respond to anti-drone arguments dealing specifically with strategies and tactics that might be facilitated by drones? Here a military spokesperson is likely to have the upper hand, since these anti-drone arguments are specifically concerned with strategy and tactics, thus creating a situation where the military spokesman is sure to have a great deal of expertise.

The military spokesperson could begin by making the point that the decision to adopt a particular strategy or tactic is driven by a complex number of factors, and that it seldom is guided merely by the selection of weapons available or a preference by planners for the use of a particular weapon. Here, the spokesperson

should emphasize as well the fact that military decisions seldom are made in isolation. Instead, military decision-making is a complex process taking into account a number of variables, to include the political, social, and economic situation in the country where action is anticipated or contemplated. In addition, planners should emphasize that any specific military decision is part of a much larger, long-range strategy that is set forth in documents such as the U.S. *National Security Strategy* and the *Quadrennial Defense Review*. The argument that the availability of a particular weapon drives U.S. or any other military policy is a shortsighted argument which evinces a lack of knowledge about how strategic priorities are set. Figure 7 provides some specific guidance.

- | <b>Strategic Priority Guidance</b>   |
|--|
| <ol style="list-style-type: none"><li data-bbox="199 840 935 933">1. Demonstrate that the choice of strategy is part of a complex decision-making process, in which the choice of weapon is only a small part of the whole picture.</li><li data-bbox="199 944 935 1003">2. Question the assertion that a particular weapon can force a defense planner or policymaker to adopt a particular strategy or tactic.</li><li data-bbox="199 1013 935 1102">3. When possible, emphasize the ways in which military strategy is part of a larger strategy, which includes military, economic, and other aspects.</li></ol> |

**Figure 7. Suggestions for Military Decision-Makers in Responding to Arguments about Drones' Effects on Choice of Military Strategy.**

## CONCLUSION

As this document has shown, there is not just one anti-drone argument or even one type of anti-drone argument. Instead, the arguments can take different

forms, drawing upon different ethical and philosophical standpoints and different historical examples and analogues. In responding to anti-drone arguments, then, it is important for leaders to consider the type of argument that is being made, the assumptions upon which it rests, and the concerns that are being expressed. Arguments about the rights of those targeted are very different from arguments about how this technology is likely to change the international system or the realm of strategic and tactical options available in the future. Hopefully, this field guide has provided a foundation for more fruitful dialogues on this important issue through identifying common ground, as well as differences in approaches between both the pro- and the anti-drone camps.

## ENDNOTES

1. Simon Rogers, "Drones by Country: Who Has All the UAVs?" *The Guardian*, August 3, 2012.

2. Quoted in Judy Dempsey, "Europe Stays Quiet despite Unease about Drones," *The New York Times*, June 11, 2012.

3. This Letort Paper does not consider legal arguments against drones since the claims are that they violate national sovereignty and thus international law. Arguments about the causes for which drones are deployed are also not considered. Rather, the various types of ethical arguments made against drones and their underlying philosophies are discussed.

4. For more on the reconceptualization of the warrior, see Mary Manjikian, "Not all soldiers: hegemonic masculinity and the problem of soldiers' agency in an age of technological intervention," in Simona Sharoni, Julia Welland, Linda Steiner, and Jennifer Pedersen, eds., *Handbook on Gender and War*, Cheltenham, UK: Edward Elgar Publishing Limited, 2016.

5. See, for example, Wendell Wallach and Colin Allen, "Framing Robot Arms Control," *Ethics and Information Technology*, Vol. 15, 2013, p. 125.

6. See, for example, Jeanne Guillemin, *Biological Weapons: From the Invention of State-Sponsored Programs to Contemporary Bio-terrorism*, New York: Columbia University Press, 2005.

7. See, for example, Nobuo Hayashi, "The Fundamental Ethical and Moral Principles for Nuclear Weapons," Panel Presentation at the Third Humanitarian Impact of Nuclear Weapons, Vienna, Germany, December 8-9, 2014.

8. Jonathan Granoff, "Preserving and Strengthening the Nuclear Non-Proliferation and Disarmament Regime," Overcoming Nuclear Dangers Conference, Rome, Italy, April 16-17, 2009, available from [gsinstitute.org/wp-content/uploads/s3/assets/gsi/pubs/04\\_15\\_09\\_Rome.pdf](http://gsinstitute.org/wp-content/uploads/s3/assets/gsi/pubs/04_15_09_Rome.pdf).

9. Reinhold Niebuhr, *The Irony of American History*, Chicago, IL: University of Chicago Press, 2008.

10. Patrick Lin, Maxwell J. Mehlman, and Keith Abney, *Enhanced Warfighters: Risk, Ethics, and Policy*, San Luis Obispo, CA: California Polytechnic Institute, 2013. Peter Olsthoorn, *Military Ethics and Virtues: An Interdisciplinary Approach for the 21st Century*, New York: Routledge, 2010. Also see Jessica Wolfendale, "Emerging Military Technologies: A Case Study in Neurowarfare," in Jessica Wolfendale, Paolo Tripodi, eds., *New Wars and New Soldiers: Military Ethics in the Contemporary World*, Farnham, UK: Ashgate, 2011.

11. Joe Sachs, trans., "Aristotle: Ethics," *Internet Encyclopedia of Philosophy*, n.d., available from [www.iep.utm.edu/aris-eth/](http://www.iep.utm.edu/aris-eth/), accessed September 1, 2015.

12. Kenneth Anderson, "The Case for Drones," *Commentary*, June 1, 2013, available from <https://www.commentarymagazine.com/article/the-case-for-drones/>, accessed on August 15, 2015.

13. Margaret Rouse, "Definition: ontology," available from [whatis.techtarget.com/definition/ontology](http://whatis.techtarget.com/definition/ontology), accessed on August 15, 2015.

14. Peter Asaro, "On Banning Autonomous Weapon Systems: Human Rights, Automation and the Dehumanizing of Lethal Decision-making," Special Issue on New Technologies and Warfare, *International Review of the Red Cross*, Iss. 94, No. 886, Summer 2012, pp. 687-709; Robert Sparrow, "Killer Robots," *Journal of Applied Philosophy*, Vol. 24, No. 1, 2007, pp. 62-77; Albert Bandura, "Selective Moral Disengagement in the Exercise of Moral Agency," *Journal of Moral Education*, Vol. 31, No. 2, 2002, pp. 101-119. Also see Deborah G. Johnson and Merel Noorman, "Negotiating Autonomy and Responsibility in Military Robots," *Ethics of Information Technology*, Vol. 16, 2014, pp. 51-62.

15. Dave Grossman, *On Killing: The Psychological Cost of Learning to Kill in War and Society*, Boston, MA: Back Bay Books, 2007.

16. Anthony C. Grayling, *Among the Dead Cities*, New York: Walker Publishing Company, 2006.

17. Hans-Peter Bartels, Chairman of the German Bundestag Defense Committee, "Drones Simply Aren't the Height of Technology," Interview, *IP Journal der DGAP*, August 1, 2014, accessed October 13, 2015.

18. Human Rights Watch, "Q and A on Fully Autonomous Weapons," October 21, 2013, available from <https://www.hrw.org/news/2013/10/21/qa-fully-autonomous-weapons>, accessed October 5, 2015.

19. Daniel M. Bell, Jr., "Just War and Counterinsurgency: Discriminating Force," *Christian Century*, August 7, 2013, pp. 22-26.

20. Human Rights Watch, "Losing Humanity: The Case against Killer Robots," November 19, 2012, available from <https://www.hrw.org/report/2012/11/19/losing-humanity/case-against-killer-robots>, accessed August 15, 2015.

21. See Jonathan Granoff, "Nuclear Weapons, Ethics, Morals and Law: Ethical and Moral Framework for Addressing the Issue," available from [www.nuclearfiles.org/menu/key-issues/ethics/basics/granoff\\_nuclear-weapons-ethics-morals-law.htm](http://www.nuclearfiles.org/menu/key-issues/ethics/basics/granoff_nuclear-weapons-ethics-morals-law.htm), accessed May 15, 2015.

22. Murray Wardrop, "Unmanned Drones Could Be Banned, Says Senior Judge," *The Telegraph*, July 6, 2009.

23. Yves Sandoz, "Turning Principles into Practice: The Challenge for International Conventions and Institutions," in Louis Maresca and Stuart Maslen, eds., *The Banning of Anti-Personnel Landmines: The Legal Contribution of the International Committee of the Red Cross*, Cambridge, MA: Cambridge University Press, 2008. See also Sebastian Wuschka, "The Use of Combat Drones in Current Conflicts: A Legal Issue or a Political Problem?" *Goettingen Journal of International Law*, Vol. 3, No. 3, 2011, p. 894.

24. James Whiting, "A Quaker comment on drone warfare and the arms trade," *Civilisation 3000*, September 25, 2014, available from <https://civilisation3000.wordpress.com/>, accessed on October 13, 2015.

25. See also Micah Zenko and Sarah Kreps, "The Next Drone Wars," *Foreign Affairs*, Vol. 93, No. 2, March-April 2014, pp. 68-79.

26. Campaign to Stop Killer Robots, "The Problem," n.d., available from <https://www.stopkillerrobots.org/the-problem/>, accessed October 1, 2015.

27. Kenneth Anderson, "The Case for Drones," *Commentary*, Vol. 135, No. 6, 2013, pp. 14-23, available from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2047537](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2047537), accessed October 2, 2015.

28. Richard Adams and Chris Barrie, "The Bureaucratization of War: Moral Challenges Exemplified by the Covert Lethal Drone," *Ethics and Global Politics*, Vol. 6, No. 4, 2013, pp. 245-260.

29. Bell, pp. 22-26.

30. Quoted in Patrick Lin, Keith Abney, and George A. Bekey, *Robot Ethics: The Ethical and Social Implications of Robotics*, Boston, MA: MIT Press, 2011, p. 115.

31. James Jay Carafano, "Future Technology and Ethics in War," *Utah Law Review*, Vol. 2013, No. 5, 2013, pp. 1263-1269.

32. David S. Fischler, "Nuclear Weapons in the Ethics of Reinhold Niebuhr," *Perspectives in Religious Studies*, Vol. 12, No. 2, Summer 1985, p. 72.

33. Tim Maine, Jon Brachle, and Art Arago, "Ethics and the Advancement of Military Technology," in Kai Larsen, ed., *The Ethical Imperative in the Context of Evolving Technologies*, Boulder, CO: Ethica Publishing, 2004. See also Stephanie Carvin, "Getting Drones Wrong," *The International Journal of Human Rights*, Vol. 19, No. 2, 2015, pp. 211-217. Carvin argues that the proportionality criteria in Just War ethics were never intended to say anything about the proportionality of the weapon, but rather were to be used in discussing the proportionality of the specific attack being carried out with the weapons.

34. P. W. Singer, "The Ethics of Killer Applications: Why is it so hard to talk about Morality When it comes to New Military Technology?" *Journal of Military Ethics*, Vol. 9, No. 4, 2010, pp. 299-312.

35. Akbar Ahmed and Lawrence Wilkerson, "Dealing Remote Control Drone Death, the US Has Lost Its Moral Compass," *The Guardian*, May 4, 2013, available from <https://www.theguardian.com/commentisfree/2013/may/04/drone-death-us-moral-compass>.

36. Olsthoorn, p. 4.

37. Lin, Mehlman, and Abney, p. 83.

38. Thomas Michael McDonnell, "Sow What You Reap? Using Predator and Reaper Drones to Carry out Assassinations or Targeted Killings of Suspected Islamic Terrorists," *The George Washington International Law Review*, Vol. 44, No. 2, 2012, p. 247.

39. Terry Gill, "Chivalry: A Principle of the Law of Armed Conflict?" in Mariëlle Matthee and Brigit Toebes, eds., *Armed Conflict and International Law: In search of the Human Face*, Meppel, The Netherlands: T.M.C. Asser Press, 2013.

40. Jessica Wolfendale, "Performance-Enhancing Technologies and Moral Responsibility in the Military," *The American Journal of Bioethics*, Vol. 8, No. 2, February 2008, pp. 28-38.

41. This is a separate issue from the question of whether a drone can be held morally responsible for its actions, which is explored in the third section of this Letort Paper.

42. Natalie Dalziel, "Drone Strikes: Ethics and Strategy," *New Zealand International Review*, Vol. 39, No. 3, May-June 2014, pp. 2-6.

43. Mira Sucharov, "Security Ethics and the Modern Military: The Case of the Israel Defense Forces," *Armed Forces and Society*, Vol. 31, No. 2, 2005, pp. 169-199.

44. See Mahmood Ahmad, "The Use of Drones in Pakistan: An Inquiry into the Ethical and Legal Issues," *The Political Quarterly*, Vol. 85, No. 1, January-March 2014.

45. John Sifton, "Drones: A Troubling History (Cover Story)," *Nation*, Vol. 294, No. 9, February 2012, pp. 11-15.

46. Audrey Kurth Cronin, "Why Drones Fail," *Foreign Affairs*, Vol. 92, No. 4, July-August 2013. Cronin suggests that al-Qaeda has profited from the ability to portray U.S. policies as bullying, allowing it to draw additional recruits to its cause.

47. Jamie Allinson, "The Necropolitics of Drones," *International Political Sociology*, Vol. 9, No. 2, June 2015, pp. 113-127.

48. See Caroline Kennedy and James I. Rogers, "Virtuous Drones?" *The International Journal of Human Rights*, Vol. 19, No. 2, February 2015, pp. 211-227.

49. Ronald Arkin, *Governing Lethal Behavior in Autonomous Robots*, Boca Raton, FL: CRC Press, 2009, p. 69.

50. Noel Sharkey, "Killing made Easy: From Joysticks to Politics," in Patrick Lin, Keith Abney, and George Bekey, eds., *Robot Ethics: The Ethical and Social Implications of Robotics*, Cambridge, MA: MIT Press, 2012, p. 122. See also Duncan Purves, Ryan Jenkins, and Bradley J. Strawser, "Autonomous Machines, Moral Judgment and Acting for the Right Reasons," *Ethical Theory and Moral Practice*, Vol. 18, No. 4, August 2015, pp. 851-872.

51. Jessica Wolfendale, "Performance-enhancing Technologies and Moral Responsibility in the Military," *The American Journal of Bioethics*, Vol. 8, No. 2, February 2008, pp. 28-38.

52. Daniel C. Dennett, "Consciousness in human and robot minds," Masao Ito, Yasushi Miyashita, and Edmund T. Rolls,

eds., *Cognition, Computation, and Consciousness*, 1997, ch. 2, available from [www.oxfordscholarship.com/view/10.1093/acprof:oso/9780198524144.001.0001/acprof-9780198524144](http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780198524144.001.0001/acprof-9780198524144).

53. Purves et al., p. 2.

54. Daniel Davis, "Who Decides: Man or Machine?" *Armed Forces Journal*, November 1, 2007, quoted in Sharkey, p. 116.

55. Sharkey, p. 122. See also Purves et al., p. 2015.

56. Quoted in Purves et al., pp. 11, 1992-2205.

57. Singer, pp. 299-312.

58. Joseph O. Chapa, "Remotely Piloted Aircraft and War in the Public Relations Domain," *Air & Space Power Journal*, Vol. 28, No. 5, September-October 2014, pp. 29-46.

59. Kennedy and Roberts, pp. 211-227.

60. Lene Grimstad, "The UN's Meetings on Autonomous Weapons: Biting the Bullet or Lost in Abstraction?" International Relations and Security Network, June 23, 2015. "Remarks at UN Convention on Certain Conventional Weapons at United Nations Meeting of Experts on Lethal Autonomous Weapons Systems," interview with Ambassador Michael Biontino, Germany, April 2015, available from <https://sustainablesecurity.org/2015/06/23/the-uns-meetings-on-autonomous-weapons-biting-the-bullet-or-lost-in-abstraction/>, accessed October 3, 2015.

61. *Stanford Encyclopedia of Philosophy*, "Respect," n.d., available from <https://plato.stanford.edu/search/searcher.py?query=respect>, accessed August 15, 2015.

62. *Ibid.*

63. Immanuel Kant, *Groundwork of the Metaphysics of Morals*, p. 11, available from [pitt.edu/~mthomps/readings/Groundwork1.pdf](http://pitt.edu/~mthomps/readings/Groundwork1.pdf), accessed September 1, 2015.

64. Olsthoorn, p. 123.

65. Grossman.

66. Sharkey.

67. Mark Coeckelbergh, "Drones, Information Technology and Distance: Mapping the Moral Epistemology of Remote Fighting," *Ethics In Technology*, Vol. 15, No. 2, June 2013, pp. 87-98.

68. "Drones and the Face," September 25, 2014, available from [openbrunei.org/2014/the-=-proliferation-of-drones-and-philosophy](http://openbrunei.org/2014/the-=-proliferation-of-drones-and-philosophy), accessed May 21, 2015.

69. Olsthoorn, p. 112.

70. Jonathan Shay, *Achilles in Vietnam: Combat Trauma and the Undoing of Character*, New York: Scribner, 1994.

71. Lin, Mehlman, and Abney, p. 84.

72. Sparrow made this argument in opposing so-called killer robots. See Sparrow, pp. 62-77. His thinking and arguments provide the intellectual basis for the current movement, The Campaign to Stop Killer Robots, more information about the organization is available from [www.stopkillerrobots.org/](http://www.stopkillerrobots.org/).

73. Emil Fackenheim, quoted in Marc H. Ellis, "Toward a Jewish Theology of Liberation: The Challenge of the 21st Century," Waco, TX: Baylor University Press, 2004, pp. 24-25.

74. Sparrow, p. 67, quoted in Purves et al., p. 5.

75. *Ibid.*, p. 2.

76. Sharkey, p. 111.

77. For more on this part, see David Hastings Dunn, "Drones: Disembodied Aerial Warfare and the Unarticulated Threat," *International Affairs*, Vol. 89, Iss. 5, September 2013, pp. 1237-1246; Tyler Wall and Torin Monahan, "Surveillance and Violence from Afar: The Politics of Drones and Liminal Security-Scapes," *Theoretical Criminology*, Vol. 15, No. 3, August 2011, pp. 239-254.

78. See Human Rights Watch, "The use of armed drones must comply with laws—International Committee of the Red Cross," May 10, 2013, available from <https://reliefweb.int/report/world/use-armed-drones-must-comply-laws>, accessed September 27, 2017.

79. Thomas E. Doyle, II, "Reviving Nuclear Ethics: A Renewed Research Agenda for the Twenty-First Century," *Ethics & International Affairs*, Vol. 24, No. 3, Fall 2010.

80. For an example, see Karen McVeigh, "Drone Strikes: Tears in Congress as Pakistani Family Tells of Mother's Death," *The Guardian*, October 29, 2013.

81. Purves et al., p. 2.

82. Robotics VO 2013, "A Roadmap for U.S. Robotics: From Internet to Robotics," available from [www.cra.org/](http://www.cra.org/), p. 114, quoted in Kenneth Kernaghan, "The Rights and Wrongs of Robotics: Ethics and Robots in Public Organizations," *Canadian Public Administration*, Vol. 57, No. 4, December 2014, p. 497.

83. Quoted in Sarah Kreps and Micah Zenko, "The Drone Invasion Has Been Greatly Exaggerated," *Foreign Policy*, March 10, 2014, European Parliament Resolution, February 2014, available from [foreignpolicy.com/2014/03/10/the-drone-invasion-has-been-greatly-exaggerated/](http://foreignpolicy.com/2014/03/10/the-drone-invasion-has-been-greatly-exaggerated/), accessed October 4, 2015.

84. Australian Anti-bases Campaign Coalition, *Backgrounder*, Independent and Peaceful Australia Network, November 2012, available from [www.IPAN-NSW.org/?cat=9](http://www.IPAN-NSW.org/?cat=9), accessed October 12, 2015.

85. CNN Staff, "Pakistan Condemns Drone Strike in North Waziristan," Press Release by Pakistani Government, June 19, 2014.

86. See Frederic Megret, "War and the Vanishing Battlefield," *Loyola University Chicago International Law Review*, Vol. 9, No. 1, Fall-Winter 2011, available from [lawcommons.luc.edu/lucilr/vol9/iss1/7/](http://lawcommons.luc.edu/lucilr/vol9/iss1/7/), accessed July 9, 2015.

87. On the obligation to declare war, see Mary Manjikian, "Special Problems I: The Question of Preemption," in James Turner Johnson and Eric Patterson, eds., *The Ashgate Research Companion to Military Ethics*, Burlington, VT: Ashgate Publishing, 2010, pp. 59-73.

88. See Mary Manjikian and Wendi See, "The Princess Diana Effect: Responses to Social Critiques of Unmanned Weapons," unpublished paper presented at the 2012 Patuxent Defense Forum, "The Future of Conflict: The Ethics of Robotic Defense and Unmanned Warfare," April 24, 2012, St. Mary's City, MD: St. Mary's College.

89. Michael Boyle, "Costs and Consequences of Drone Warfare," *International Affairs*, Vol. 89, No. 1, 2013, pp. 1-29.

90. See Dalziel, pp. 2-6.

91. Christian Enemark, *Armed Drones and the Ethics of War: Military Virtue in a Post-Heroic Age*, New York: Routledge, 2013.

92. See Jodok Troy, "A Ruthless Form of Warfare except All Others? The Challenge of Drone Warfare to International Society," available from [web.isanet.org/Web/Conferences/GSCIS%20Singapore%202015/Archive/ffff7ae5-625b-4cf7-bdb7-9d7a0545cff5.pdf](http://web.isanet.org/Web/Conferences/GSCIS%20Singapore%202015/Archive/ffff7ae5-625b-4cf7-bdb7-9d7a0545cff5.pdf), accessed August 15, 2015.

93. Greg Kennedy, "Legitimacy and Unmanned Vehicles in Conflict: Questions of the 21st Century?" *Defense Studies*, Vol. 13, No. 3, 2013, p. 274.

94. Boyle, p. 14.

95. Greg Kennedy, p. 274.

96. *Ibid.*, p. 273.

97. See Megan Braun and Daniel R. Brunstetter, "Rethinking the Criterion for Assessing CIA-Targeted Killings: Drones, Proportionality and Jus Ad Vim," *Journal of Military Ethics*, Vol. 12, No. 4, January 2013.

98. Quoted in Michael Schmitt, "Regulating Autonomous Weapons Might be Smarter than Banning Them," [Justsecurity.org](http://Justsecurity.org), August 10, 2015, available from <https://www.justsecurity.org/25333/regulating-autonomous-weapons-smarter-banning/>, An Open Letter Urging a Ban on Autonomous Weapons, Signed by Stephen Hawking (former Lucasian Professor at Cambridge), Elon Musk (Chief Executive Officer of Tesla and SpaceX), Steve Wozniak (Apple co-founder), and more than 1,000 artificial

intelligence [AI] and robotics researchers, July 2015, accessed on October 9, 2015.

99. Michael Shank, "Obama's Air Strikes, Drone Strikes and Diplomacy in Iraq," available from <https://www.youtube.com/watch?v=1sFCfVVt7v8&noredirect=1>, accessed on August 15, 2015.

100. James Walsh, *The Effectiveness of Drone Strikes in Counterinsurgency and Counterterrorism*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2013.



**U.S. ARMY WAR COLLEGE**

**Major General John S. Kem  
Commandant**

\*\*\*\*\*

**STRATEGIC STUDIES INSTITUTE  
AND  
U.S. ARMY WAR COLLEGE PRESS**

**Director  
Professor Douglas C. Lovelace, Jr.**

**Director of Research  
Dr. Steven K. Metz**

**Author  
Dr. Mary Manjikian**

**Editor for Production  
Dr. James G. Pierce**

**Publications Assistant  
Ms. Denise J. Kersting**

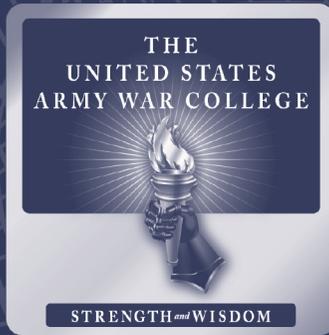
\*\*\*\*\*

**Composition  
Mrs. Jennifer E. Nevil**





**U.S. ARMY**



FOR THIS AND OTHER PUBLICATIONS, VISIT US AT  
[armywarcollege.edu](http://armywarcollege.edu)

ISBN 1-58487-768-5



9 781584 877684

9 0000 >



This Publication



SSI Website



USAWC Website