The Moral Legitimacy of Drone Strikes: How the Public Forms Its Judgments

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Scholars often relate how the public views drone strikes to one of three moral norms: soldiers' battlefield courage, the protection of soldiers, or preventing civilian casualties. But what explains variation in the public's perceptions of what constitutes morally legitimate drone warfare? I contend that the public may combine moral norms to make such judgments. How drones are used — tactically or strategically — and whether strikes are constrained unilaterally or multilaterally to protect against civilian casualties can shape the public's intuitions of what constitutes morally legitimate drone strikes. Use and constraint, then, make up informal moral rules that may condition the public's perceptions of legitimacy. To test this claim, I conducted an original survey in March 2021. The results show that the public combines moral norms to cast judgment about drone strikes and that these moral considerations are shaped by shifts in why drones are used and how they are constrained.

In 2002, U.S. President George W. Bush authorized the first known use of an armed and networked unmanned aerial vehicle, or drone, as it is commonly called, to kill an al-Qaeda leader in Yemen. Bush's inaugural use of a drone for the targeted killing of a terrorist set a dangerous precedent. Over 100 countries and many stateless actors now possess drones. To contend with the emergence of so-called “drone warfare,” the literature has evolved from studying drone proliferation to measuring the effectiveness of strikes to investigating the legal and normative dimensions of these operations. Though the literature has been described as a “drone-a-rama,” there are nevertheless still several notable gaps.

One such area that scholars have largely ignored is the moral legitimacy of strikes based on empirical evidence of the public's perceptions. Indeed, as Stephen Ceccoli and John Bing have noted, we know “surprisingly little” about the public’s perceptions of what constitutes legitimate drone strikes, despite reoccurring claims that legitimacy is “central” to the sustainability of drone warfare. Larry Lewis and Diane Vavrichuk argue that there has been an “inadequate consideration of legitimacy” in drone policy and scholarship. Mitt Regan adds that “there has been little effort to systematically study legitimacy” in terms of drones. This oversight is problematic.

4 Another such area that has been ignored until recently is the implication of drone warfare for global order. For a recent examination of this topic, see Paul Lushenko, Srinjaya Bose, and William Maley, eds., Drones and Global Order: The Implications of Remote Warfare for International Society (London: Routledge, 2022).
8 Mitt Regan, conversation with the author, June 2, 2022.
because the public seems to view some strikes as more morally legitimate than others. The difference in the public’s perceived legitimacy of American and French drone strikes in Africa illustrates this puzzling trend. Though both France and the United States have conducted drone strikes in Africa since 2019, a search via LexisNexis of media coverage for these operations shows key differences in the volume and tone of reporting. French strikes receive 60 percent less media coverage than U.S. strikes. Whereas some observers have cautioned that U.S. strikes have unnecessarily harmed Africans, others have argued that France’s strikes are necessary for regional security. Yet, American and French strikes are conducted on the same continent, against the same threat, and with the same type of drone, and they result in the same outcomes, including civilian casualties. So why does the public seem to perceive France’s drone strikes in Africa as more legitimate than America’s? The purpose of this article is to investigate this variation in the public’s perceptions of what constitutes a morally legitimate drone strike. Rather than looking at legitimacy in terms of compliance with international law, I treat legitimacy as an empirical or pragmatic phenomenon. This means that, while legitimacy may constitute the subjective beliefs that people have about the appropriateness of wartime action given some rule, it is also testable. Regan argues that “[c]he fact that human judgment is unavoidable does not mean that all analysis is simply the reflection of subjective preferences that cannot be subject to rigorous assessment.”


public adjudicates the moral legitimacy of strikes. In doing so, they cannot adequately account for inconsistencies in the public’s perceptions about morally legitimate strikes that are conducted in the same location and that have the same results, including civilian casualties.19

I contend that the public may combine moral norms to cast judgment about drone strikes and that these moral considerations are shaped by variations in why drones are used and how they are constrained. While many scholars have recognized that countries vary in their use of drones,20 few discuss shifts in how countries constrain strikes. I hypothesize that countries’ use of drones — tactically or strategically — coupled with how strikes are constrained to protect against civilian casualties — unilaterally or multilaterally — can shape the public’s intuitions about the moral legitimacy of strikes. Use and constraint, then, constitute informal rules that may condition the public’s perceptions of morally legitimate drone strikes. Looking at countries’ varying uses of strikes under different constraints allows us to determine when and how the public emphasizes moral norms that shape perceptions of legitimacy.

In order to investigate this proposition, I conducted an original survey experiment. The results indicate that the public’s perception of what constitutes a morally legitimate drone strike is not reducible to either use or to constraint alone, as is often suggested by scholars working in the classical just war tradition that is based on *jus ad bellum* (justice of war) and *jus in bello* (justice in war).21 The results also suggest that at least the appearance of higher external control over a country’s strikes does increase their perceived legitimacy. So much so, in fact, that countries submitting to multilateral constraint when using strikes tactically can be absolved by the public of any moral culpability for civilian casualties. In addition, the public’s perception of the moral legitimacy of drone strikes appears not to be a function of soldiers’ battlefield courage, soldiers’ safety, or the protection of civilians alone. Rather, why and how a country uses strikes shapes the public’s recall of unique combinations of these moral norms. This finding implies that experts who criticize drones as lacking virtue, given the lack of physical courage required to launch a strike, do so based more on anecdote or their own intuitions rather than empirically derived evidence. Finally, key demographic and dispositional variables, including sex, education, belief in the managerial role of great powers for global security, and support for the use of force abroad can also shape the public’s perceptions of what constitutes morally legitimate drone strikes.

The remainder of this article proceeds as follows. I first sketch the three moral norms that form the baseline of scholars’ understanding of legitimate drone strikes: soldiers’ physical courage, the protection of soldiers, and the duty to care for civilians, which is often used interchangeably with the protection of civilians on the battlefield. I then define the informal rules of use and constraint and discuss the possible implications of varying why and how countries use and constrain drones on the public’s perceptions of morally legitimate drone strikes. Next, I introduce my research design and then present my findings. I conclude by discussing my results, identifying the implications for U.S. drone policy, and making recommendations for future research.

## Moral Norms and Drone Warfare

Scholars generally link the public’s perceptions of what makes drone warfare morally legitimate to one of three moral norms: soldiers’ physical courage on the battlefield in conducting strikes, the security outcomes of those strikes, and the protection of civilians. This typology raises questions about what a norm is, how we understand a moral norm, where moral norms come from, and how moral norms are enforced. I briefly outline the anatomy of moral norms before introducing courage, security outcomes, and the duty to protect civilians as the normative benchmarks for how scholars interpret legitimate strikes.

Norms are expectations that constitute and regulate behavior.22 A moral norm is a special type of norm that is thought to be independent of political authority, universal in scope, and related to the suffering of others, which is a hallmark of moral legitimacy...
Yet, it may be the case that the public combines moral norms when adjudicating the legitimacy of strikes, even if they are “morally dumbfounded” and cannot explain how they formed a judgment.

The latter approach helps us to understand how moral norms are adopted and enforced. Moral norms do not occur spontaneously within cultures. They evolve as acceptable standards of behavior due to interactions between publics within and between countries. Research suggests that moral norms are adopted by political communities through a process referred to as “localization” before being reinterpreted and cycled back into international society. What this sequence suggests, then, is that moral norms are first “identified by dedicated psychological processes associated with imitation and social learning, soaked up from observing and participating in the interpersonal interactions of ... community.” Specifically, this process indicates that there is a system of norms within people that both shapes and is shaped by expectations of acceptable behavior shared among members of a given society. This system of norms helps to define who can be harmed, how they can be harmed, when they can be harmed, and where they can be harmed. An appreciation of moral norms and the norm system that resides within individuals helps us to make sense of assumptions that often underlie scholars’ emphasis on courage, safeguarding soldiers, or protecting civilians to explain legitimate drone warfare. Scholars have identified three main sources of moral legitimacy when it comes to drone strikes. Those who adhere to virtue ethics contend that the moral legitimacy of a strike is shaped by the degree of risk that the attacking country’s soldiers incur on the battlefield, and thus the physical courage they show. This moral norm applies to a form of “mixed” drone warfare. In this case, countries use strikes in support of patrols and raids conducted by ground forces, both of which expose soldiers to greater physical harm. Soldiers’ liability to be harmed allows war to keep its “charm” for theorists of a martial tradition of war that emphasizes hand-to-hand combat as the defining feature of this social institution.

A consequentialist account of morally legitimate drone warfare considers the outcomes of strikes. There may be different outcomes that guide the public’s interpretation of what is morally legitimate. Most consequentialists in drone warfare studies are focused on how to minimize the physical feature of war. The literature suggests that moral norms can emerge in one of two ways. Those in the nativist camp argue that moral norms are innate to one’s psychology. Social-relational theorists — such as those associated with the “English School” — contend that the public is socialized to adopt certain behaviors.

30 Gusterson, Drone.
31 Nabulsi, Traditions of War; and Benjamin Constant, Political Writings, trans. and ed. Biancamaria Fontana (Cambridge: Cambridge University Press, 1988).
risks to soldiers.\textsuperscript{32} According both to Erich Reisen and Bradley Strawser, for instance, if a military can use strikes to engage combatants, it has a moral obligation to do so in order to reduce the risk of harm to soldiers.\textsuperscript{33} This moral norm corresponds to a “pure” form of drone warfare that Neil Renic defines as “UAVs as war, rather than in war.”\textsuperscript{34}

Non-consequentialist approaches, also referred to as deontologist approaches, emphasize obligations to others. While many obligations may exist, deontologists studying drone warfare generally emphasize the duty to care for civilians as the key moral norm that informs the public’s perceptions about drone strike legitimacy. This echoes the \textit{jus in bello} principle of distinction or non-combatant immunity that most analysts claim is integral to legitimacy.\textsuperscript{35} These obligations are sometimes discussed in terms of constraints. Chief among these constraints are the reputational costs that countries incur for launching strikes that result in civilian casualties;\textsuperscript{36} the arguable need for countries to demonstrate the military, as opposed to the political, effects of strikes;\textsuperscript{37} and the advantages for countries that adopt stricter targeting protocols to protect civilians.\textsuperscript{38} What this suggests, then, is that while countries may have “an obligation to utilise unmanned systems, their deployment should be subject to strict oversight.”\textsuperscript{39} This is because, as Timothy Challans contends, “[w]ith restraint comes legitimacy.”\textsuperscript{40}

Hypotheses about these moral norms are a useful starting point for understanding variation in the public’s perceptions about morally legitimate drone strikes. These person-centered and act-based interpretations of moral legitimacy, however, are often treated as being isolated from one another. Yet, it may be the case that the public combines moral norms when adjudicating the legitimacy of strikes, even if they are “morally dumbfounded” and cannot explain how they formed a judgment.\textsuperscript{41}

Different moral norms may also be triggered by the specific attributes of different strikes, including the use and constraint of drones. Looking at intuitions and rules may allow us to better account for how the public combines moral norms when assessing the legitimacy of strikes.

\section*{Intuitions, Rules, and the Moral Legitimacy of Drone Warfare}

One way to understand how the public may combine moral norms is to explore peoples’ intuitions. Intuitions are rapid evaluative judgments about the morality of behavior that derive from the intersection of raw emotion and cognition.\textsuperscript{42} Intuitions are predicated on a dual-process theory of psychology that distinguishes between two mechanisms. The first mechanism consists of a bundle of compartmentalized and task-specific systems, such as a person’s norm system, that are thought to automatically generate intuitions. The second mechanism is synonymous with consciousness or purposeful reflection. This implies that assuming that the public’s judgment is based primarily on deliberative reasoning may be dubious, even if it

\begin{thebibliography}{99}
\bibitem{Galliot, Military Robots} Galliot, \textit{Military Robots}, 4.
\end{thebibliography}
is widely assumed. Thus, we can move beyond the assumption that one or the other moral norm definitively shapes the public’s perceptions about the legitimacy of drone strikes toward a more dynamic theory of how moral norms may work in combination. Crucially, intuitions, like reasoning, are also testable.

On the basis of this realization, I hypothesize that countries’ use of drones — whether tactically or strategically — and the degree to which they are constrained — whether unilaterally or multilaterally — to protect against civilian casualties, can shape the public’s intuitions about what constitutes morally legitimate strikes. My hypothesis builds off two areas of related research. The first investigates the public’s attribution for moral responsibility given mistakes that may result from a country’s use of military robots, including drones. The second explores the implications of such moral attitudes in shaping public opinion about emerging technologies in war, such as drones. I advance this literature by bridging it with an appreciation for the public’s perceptions of legitimacy, which has yet to be systematically done in the drone warfare scholarship. Although scholars may identify legitimacy as the locus of success in drone warfare, most are reticent to treat legitimacy as a dependent variable given reasonable methodological concerns. Legitimacy is a social condition, meaning that it is difficult to measure. As I show below, however, it is possible to treat legitimacy as a dependent variable while using statistical methods to analyze empirically derived data of the public’s perceptions.

Whereas scholars often argue that the consequences of strikes, whether in terms of the protection of civilians or soldiers, condition the moral status of drones, I claim that the public’s perception of morally legitimate strikes is framed by informal rules that relate to countries’ varying use and constraint of drones. Shifts in these rules, or why and how countries use drones, may prime people to select courage, outcomes for soldiers, and/or duties to civilians from within their norm system when forming a moral judgment about strikes. What this also means is that the public may draw from several moral norms at once, rather than simply recalling one over the others, when adjudicating the legitimacy of drone strikes. This theory is useful, then, because it specifies the mechanisms that may moderate the public’s perceptions of morally legitimate drone warfare.

**Informal Rules About Use and Constraint**

Rules categorize what is permissible behavior, according to a given set of moral norms. Rules give meaning to norms, in other words, by prescribing or proscribing behavior. In the context of drone warfare, rules emerge from the public’s understanding of the martial virtues and the just war tradition. The martial virtues, such as honor and sacrifice, help to inform the public’s understanding of soldiers’ appropriate behavior in war. The just war tradition is codified in international humanitarian law, also known as the Law of Armed Conflict, that governs how countries ought to use force in war. Together, the martial virtues and international law provide the foundation for policymakers when making moral judgments about the use of drones in war.

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43 Haidt, “The Emotional Dog and Its Rational Tail.”
humanitarian law suggest that reciprocal or shared risk between combatants on the battlefield, as well as giving effective notice to allow for self-defense, are necessary for wartime behavior to be considered morally justified.51

While some understand moral rules to be rigid and broadly known or official, the reality is more complicated. Rules are often mediated by situational context and can be informal, which sometimes leads to “moral flexibility.”52 The international relations theory literature on regimes also argues that countries can follow informal rules to a greater or lesser degree “as their power and interests change.”53 Importantly, doing so does not nullify the norms from which rules emerge but may nevertheless impact the public’s perceptions of legitimate behavior.

I argue that countries often align their strikes in terms of two informal rules: use and constraint. The use rule relates to why countries choose to use drones in the first place and is designed to ensure that countries uphold key expectations of wartime conduct when executing strikes, namely reciprocal risk and the right to self-defense. Drone strikes can either be used for tactical or strategic purposes.

Countries may use drones tactically during discrete or hasty engagements with combatants to achieve near-term, limited military objectives, including the defense of ground forces, in declared theaters of operations such as Afghanistan.54 As such, Daniel Brunstetter describes the tactical use of drones as defensively oriented.55 Countries’ tactical use of drones is reflected in at least two ways. Commanders use strikes during engagements in support of ground forces. According to Wayne Phelps, this characterizes a majority of strikes. In these scenarios, drones loiter above conflict zones waiting to identify “someone to be killed or something to be destroyed.”56 Medea Benjamin adds that drones mostly “patrol the skies looking for suspicious activity and, if they find it, they attack.”57 Drones are also often deployed in support of expeditionary missions in declared theaters of operations. Tactical strikes, then, do not contravene international norms, including norms about not interfering in the internal affairs of other countries.

Countries can also use drones strategically, which Joseph Chapa describes as using them as a “foreign policy tool.”58 Contrary to the tactical use of drones, the strategic use of drones is more comprehensive and deliberately planned because it is central to the way in which political officials intend to defeat an adversary, especially in undeclared theaters of operations such as Pakistan. Political officials assume that killing key terrorist leaders is an effective way to hasten an enemy’s demise while protecting soldiers on the battlefield.59 Preserving soldiers’ lives also helps to minimize the reputational costs that officials may incur for using force abroad.60 A related reason why elected officials may choose to use drones strategically is to restore a country’s sovereignty or territorial integrity.


55 Brunstetter, Just and Unjust Uses of Limited Force.

56 Phelps, On Killing Remotely, 72.

57 Benjamin, Drone Warfare, 18.


In some cases, drones provide officials with the least bad option for augmenting the security of fragile or failing countries. For some specialists, then, the strategic use of drones promises a cooperative approach to achieve common goals, but only if strikes are requested by officials within the targeted countries.

It is also possible to empirically identify when a country is using drones strategically. In contrast to the tactical use of strikes, strategic strikes are characterized by the centralization of the authority to conduct strikes in executive officials, such as presidents or senior defense officials; the lack of reciprocal risk between combatants on either side of a conflict; a network of globally distributed bases from which to launch, recover, and maintain drones; and the potential erosion of a targeted country’s sovereignty, should an intervening country abuse the scope of its intervention.

According to Brunstetter and Amélie Férey, this latter feature relates to an “imperial slide,” which “occurs when protecting or restoring sovereignty slips into imperial drone use, thus marking the decision to override traditional sovereignty norms of other states.” An imperial slide seems to have taken place in Pakistan during the Obama administration. Though Pakistan’s President Pervez Musharraf may have welcomed U.S. strikes against al-Qaeda in the Federally Administered Tribal Areas in 2004, he later withdrew consent. However, President Barack Obama expanded the U.S. drone program there, leading to public outrage.

In addition to the use rule, I propose that there is also an informal rule about countries’ constraint of drones, which relates to their obligation to prevent civilian casualties. Countries can use drones with unilateral or multilateral constraint. Unilateral constraint is implemented by officials within one country only. This type of constraint does not require the approval of other countries. Rather, it is best characterized by “delegatory” accountability in which the enforcement of targeting constraints is the remit of political officials, military leaders, and commanders from a single country that is operating within a conflict zone. Although sanctioning a targeting country for causing civilian casualties usually occurs after the fact, the risk of reputational harm can help to shape a country’s drone policy to prevent such outcomes before a strike is launched.

In light of this observation, Doyle Hodges describes unilateral constraint as “military legalism.” “When the legitimacy of a U.S. conflict is contested,” he explains, “policy-makers are likely to implement rule-based regimes of constraint on the use of force in an effort to re-capture legitimacy.”

One example is Obama’s Presidential Policy Guidance that was adopted in May 2013. The policy emerged amid heightened global criticism about the considerable harm that U.S. drone strikes were inflicting on civilians in Pakistan. Obama was initially comfortable striking targets based on the appearance of terrorist activity in an area. These “signature strikes” were criticized for harming civilians because they did not rely on positive identification of a terrorist being present. The public backlash encouraged Obama to adopt a policy that conditioned strike approval on the “near” certainty that no civilian casualties would occur as a result of U.S. drone strikes. Obama’s stringent targeting protocol dramatically reduced civilian casualties.

61 Brunstetter and Holendre, eds., The Ethics of War and Peace Revisited.
68 Renic, Asymmetric Killing.
from 2013 until the end of his presidency. Civilian deaths went from approximately 13 per month to just one or fewer, the precision of strikes increased to 95 percent, and nearly 300 civilian deaths were averted. Neha Ansari’s field research, in which she interviewed 116 residents who had been exposed to the U.S. drone program in Pakistan, shows that Obama’s policy change improved the public’s perceptions that the strikes were morally legitimate, with one respondent claiming that “[t]he drone is a justice-delivering technology.”

Multilateral constraint, on the other hand, obligates countries to meet the oversight requirements of allies and partners. The purpose of requiring international approval for drone strikes, especially through the United Nations, is to enforce laws and norms that help to legitimize operations. Multilateral constraints relate to a “participatory” model of accountability, wherein “the performance of power-wielders is evaluated by those who are affected by their actions.” In the context of drone warfare, multilateral constraints consist of stricter targeting protocols, which are enforced during an inclusive coordination process involving political officials, military representatives, and operational commanders from numerous countries. This results in a negotiated process, usually through a regional or international coalition of cooperating countries, to approve the use of strikes based on their anticipated military advantages. Chief among these benefits is being able to kill terrorists while simultaneously protecting friendly forces and preventing civilian casualties.
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In addition to shifts in the tactical and strategic use of drones, then, countries can also vary the type of constraint under which strikes occur. Constraint, which can consist of unilaterally or multilaterally imposing targeting protocols on countries’ employment of drones, may also help to shape the public’s views of strikes, especially when coupled with different ways of using drones. Integrating these two informal rules enables us to investigate how different combinations of drone use and constraint affect the public’s perceptions of moral legitimacy, which suggests deeper constellations of moral norms that are triggered by shifts in why and how countries use strikes.

**Theoretical Expectations**

Two primary theoretical expectations emerge from this discussion of informal rules that may govern countries’ use and constraint of drones. First, I anticipate that variations in the use of drones and types of constraint will cause the public to combine moral norms in unique ways when determining the legitimacy of strikes. Forecasting the exact combination of moral norms that will emerge is beyond the scope of my analysis. The central contribution of this study is to show that the public may draw on multiple moral norms when adjudicating the legitimacy of strikes, which complements existing research and establishes an important baseline for future studies.

Second, I expect that changes in drone use and constraint will cause the public to perceive the legitimacy of strikes differently. I posit that the public will likely perceive strikes as most morally legitimate when they are used tactically and under multilateral constraint. I also anticipate that tactical strikes with unilateral constraint will confuse the public, even though this pattern of drone warfare now characterizes most drone strikes globally. This is because such strikes do not generate as much media attention as U.S. counterterrorism strikes, meaning they literally “fly under the radar” of global public opinion. Observers, then, have little prior knowledge to assess the moral probity of these strikes.

In addition, I anticipate that demographic and dispositional variables — especially sex, education, political ideology, belief in the managerial role of great powers for global security, and support for the use of force abroad — may also condition the public’s perceptions of morally legitimate drone strikes.

**Experimental Design**

To assess the effects of different types of drone use and constraint on the public’s perceptions of what constitutes a morally legitimate strike, I carried out a survey experiment. Respondents were recruited online from March 15 to 22, 2021, using Amazon Mechanical Turk. The 555 Americans that met the selection criteria, namely their proven ability to successfully complete other surveys in the past, were randomly assigned to one of five groups: four experimental groups and one control group.

While some scholars question the merits of online-based respondent pools, a body of literature finds that subjects drawn from the internet can provide a representative sample of the public. To further ensure as representative of a sample as possible, I used the recent U.S. census to check that the aggregate survey pool met certain demographic percentages. Ultimately, the respondent pool was broadly representative of the American public, except when it came to age, education, and race. Relative to the U.S. population, my respondent pool was slightly younger, more educated, and predominately white. These considerations caution against drawing sweeping conclusions based on the results of the survey. Nevertheless, my findings still reveal key differences in how Americans perceive strikes depending on why they are used and how they are constrained. At the same time,
because “young adults tend to have less-crystallized social and political attitudes than do older people,” this population is useful in empirical tests of new theories.80

Each group of respondents was presented with a randomized drone strike scenario and then prompted to assess the moral legitimacy of the operation. The scenarios differed in terms of drone use and constraint. Specifically, the four experimental groups received the following drone strike conditions: strategic use and multilateral constraint (group one); tactical use and multilateral constraint (group two); strategic use and unilateral constraint (group three); and tactical use and unilateral constraint (group four).

The first experimental manipulation involved a fictional country’s — Country A — use of a drone to kill a terrorist in another country — Country B. Groups two and four were told that Country A uses drones as “a tactic against terrorists on the battlefield,” and that “Country A has a small number of drones, does not deploy them to bases across the globe, and prefers raids to drone strikes.” Groups one and three were told that Country A uses drones “as a key pillar of its national security policy and military strategy,” and that “Country A has the most drones in the world, deploys them to bases across the globe, and prefers drone strikes to raids.”

The second experimental manipulation involved Country A’s constraint of a drone strike. Groups one and two were told that “Country A allows its allies to approve its drone strikes through coalition military operations.” Groups three and four were told that “Country A prefers to use drone strikes without consulting with or seeking the approval of other countries.” Respondents in the control group, the fifth group, did not receive information on drone use and constraint.

All respondents, including those in the control group, also learned that the “strike results in one civilian casualty but removes the terrorist who had been planning to attack Country A.” According to data collected by the Bureau of Investigative Journalism on U.S. drone strikes from 2002 to 2018, the reported range of civilian casualties per strike is between .53 and 1.15.81 This suggests that the average U.S. drone strike typically results in approximately one civilian casualty or less. Of course, this is a tragic outcome given the promised benefits of drones, which is to protect against unnecessary civilian harms. Yet, this finding helps to justify my decision to include only one civilian casualty in the vignettes rather than multiple civilian deaths, which scholars often include in other surveys about U.S. drone strikes without explaining why.82

After reading their vignette, respondents assessed the legitimacy of the drone strike by answering the following question: “On a scale of 1 to 10, with 1 representing ‘not morally legitimate’ and 10 representing ‘very morally legitimate,’ how legitimate is Country A’s use of the drone strike?” To examine the implications of use and constraint on perceptions of moral responsibility, respondents were also asked to assess culpability for the civilian casualty: “On a scale of 1 to 10, with 1 representing ‘not morally responsible’ and 10 representing ‘very morally responsible,’ how morally responsible is Country A for the civilian casualties that resulted from the drone strike?” Respondents also answered the following open-ended question: “What factors did you consider while evaluating the moral legitimacy of Country A’s use of a drone strike in Country B?” Previous research indicates that asking such a question “can also yield useful information, especially when researchers need to explore complex issues that do not have a finite or predetermined set of responses.”83

In addition to these main questions of interest, the survey asked respondents to answer several dispositional questions. Respondents were asked to gauge their political ideology using a 7-point scale ranging from “extremely liberal” (1) to “extremely conservative” (7). They were also asked to assess their support for the use of force abroad as well as their belief that great powers should provide for global security. For both questions, respondents answered on a 5-point scale, ranging from “strongly disagree” (1) to “strongly agree” (5).

I then analyzed the data using several statistical methods. First, I used an analysis of variance technique to compare respondents’ average or mean responses for the moral legitimacy of the drone

80 Scott Sigmund Gartner, “The Multiple Effects of Casualties on Public Support for War: An Experimental Approach,” American Political Science Review 102, no. 1 (February 2008): 95–106, https://doi.org/10.1017/S0003055408008027; and David O. Sears, “College Sophomores in the Field,” and that “Country A has a small number of drones, does not deploy them to bases across the globe, and prefers raids to drone strikes.” Groups one and three were told that Country A uses drones “as a key pillar of its national security policy and military strategy,” and that “Country A has the most drones in the world, deploys them to bases across the globe, and prefers drone strikes to raids.”

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The second experimental manipulation involved Country A’s constraint of a drone strike. Groups one and two were told that “Country A allows its allies to approve its drone strikes through coalition military operations.” Groups three and four were told that “Country A prefers to use drone strikes without consulting with or seeking the approval of other countries.” Respondents in the control group, the fifth group, did not receive information on drone use and constraint.

All respondents, including those in the control group, also learned that the “strike results in one civilian casualty but removes the terrorist who had been planning to attack Country A.” According to data collected by the Bureau of Investigative Journalism on U.S. drone strikes from 2002 to 2018, the reported range of civilian casualties per strike is between .53 and 1.15.81 This suggests that the average U.S. drone strike typically results in approximately one civilian casualty or less. Of course, this is a tragic outcome given the promised benefits of drones, which is to protect against unnecessary civilian harms. Yet, this finding helps to justify my decision to include only one civilian casualty in the vignettes rather than multiple civilian deaths, which scholars often include in other surveys about U.S. drone strikes without explaining why.82

After reading their vignette, respondents assessed the legitimacy of the drone strike by answering the following question: “On a scale of 1 to 10, with 1 representing ‘not morally legitimate’ and 10 representing ‘very morally legitimate,’ how legitimate is Country A’s use of the drone strike?” To examine the implications of use and constraint on perceptions of moral responsibility, respondents were also asked to assess culpability for the civilian casualty: “On a scale of 1 to 10, with 1 representing ‘not morally responsible’ and 10 representing ‘very morally responsible,’ how morally responsible is Country A for the civilian casualties that resulted from the drone strike?” Respondents also answered the following open-ended question: “What factors did you consider while evaluating the moral legitimacy of Country A’s use of a drone strike in Country B?” Previous research indicates that asking such a question “can also yield useful information, especially when researchers need to explore complex issues that do not have a finite or predetermined set of responses.”83

In addition to these main questions of interest, the survey asked respondents to answer several dispositional questions. Respondents were asked to gauge their political ideology using a 7-point scale ranging from “extremely liberal” (1) to “extremely conservative” (7). They were also asked to assess their support for the use of force abroad as well as their belief that great powers should provide for global security. For both questions, respondents answered on a 5-point scale, ranging from “strongly disagree” (1) to “strongly agree” (5).

I then analyzed the data using several statistical methods. First, I used an analysis of variance technique to compare respondents’ average or mean responses for the moral legitimacy of the drone
strike, as well as the moral culpability of the country for the civilian casualty.84 Second, when comparing differences in the legitimacy and responsibility outcomes between the control and experimental groups, I used a t-test, which shows the statistical significance of the difference between two means for a given response.85 Third, I used multivariate regression analysis to determine the implications of several demographic and dispositional variables on perceptions of legitimacy when holding all other factors constant.

To analyze data from the open-ended question, I coded the responses according to their emphasis on soldiers’ courage (1), the protection of soldiers (2), the protection of civilians (3), or some conflated logic (4). Conscious of the potential to inadvertently misrepresent respondents’ intentions, I reviewed the responses twice, coding them separately each time, and adjudicated any differences.86 The rejection rate was less than 1 percent and I recoded this small number of responses as conflated logic because it was difficult to determine the emphasis on any one moral norm. Following this process, I determined the percentage of respondents emphasizing different moral norms within each experimental group. Finally, I measured the time it took respondents to complete the survey, which is useful to help determine if those assigned to group four find it difficult to interpret the moral legitimacy of a drone strike used tactically with unilateral constraint. This experimental design is advantageous for several reasons. First, it resembles how people make moral judgments, which is to say for one event at a time — in this case for one drone strike, rather than for multiple drone strikes in a given setting.87 Second, randomized controlled trials, such as survey experiments, help to resolve bias that can distort studies that use comparative case analysis.88 Third, randomly and evenly distributing respondents across experimental groups resolves the need to take extra steps to account for bias when drawing inferences about the implications of different types of strikes on perceptions of legitimacy, such as incorporating control variables to capture potentially omitted factors.89

While surveys are useful for isolating the effect of an experimental manipulation on some outcome, they are sometimes criticized for resulting in biased findings. Surveys can suffer from priming — when respondents are encouraged to answer in a certain way — or social desirability bias — when respondents feel obligated to give answers that seem more socially acceptable. To manage these challenges, I constructed scenarios using hypothetical but realistic examples of drone strikes.90 Research shows that using fictional country names can minimize respondents’ tendency to reason by analogy, which risks distorting their intuitions. Preconceived notions are a challenge in drone warfare studies because they represent what methodologists refer to as a pretreatment condition, which is difficult to account for in a survey design. Therefore, they can bias the results. For instance, it is possible that respondents believe that U.S. political and military officials prefer to use strategic strikes with unilateral constraint to kill terrorists abroad, a pattern that has elicited the most public scrutiny. These strikes have been criticized for lacking transparency,91 contravening international law,92 and resulting in more civilian casualties than is acknowledged.93 My approach of using fictional but realistic scenarios, then, helps to enhance the validity of the findings. It also allows me to meet the concerns of scholars who criticize surveys for dubious treatment effects or how well they approximate respondents’ beliefs in the real world.94

84 Michael A. Bailey, Real Econometrics: The Right Tools to Answer Important Questions (Oxford: Oxford University Press, 2017). The analysis of variance technique is useful to determine if there are any statistically significant differences between the means of groups of data in terms of a certain response — in this case, perceptions of legitimacy and responsibility. For this study, combinations of use and constraint attributes demarcate four groups of data. The control group provides a fifth set of data.
85 Bailey, Real Econometrics, 99.
86 Glazier, Boydstun, and Feezell, “Self-coding.”
87 Bartels et al., “Moral Judgment and Decision Making.”
88 Regan, Drone Strike.
89 Schwartz, Fuhrmann, and Horowitz, “Do Armed Drones Counter Terrorism, or Are They Counterproductive?”
93 Regan, Drone Strike.
Experimental Results

Use and Constraint

As illustrated in Figure 1, the respondents generally viewed strikes as relatively legitimate, with the average response across all experimental groups being a 6.2 out of 10. When aggregating across all experimental groups as well, an analysis of variance shows that shifts in countries’ use and constraint of drones can shape the public’s perceptions of what constitutes morally legitimate strikes, which is a highly statistically significant result. Countries that submit to multilateral constraint favorably affect the public’s perceptions of legitimacy. This effect is strongest when a country uses drones tactically. This pattern of drone warfare encouraged respondents to rate the moral legitimacy of strikes at nearly one point higher than if a country conducted a strike under unilateral constraint.

By contrast, respondents penalized the moral legitimacy of countries that adopted multilateral constraint but used drones strategically by nearly three quarters of a point. This outcome is similar to the public’s perceptions of moral legitimacy for unilaterally constrained strikes, regardless of how they are used. Although at a lower level of statistical significance, an analysis of variance also shows that the type of constraint can shape the public’s perceptions of moral culpability for a civilian casualty. Unilateral constraint resulted in nearly a half-point increase in perceived responsibility for the civilian casualty, with more culpability attributed to countries that launched a strategic strike.

Using t-tests to compare the legitimacy and responsibility outcomes between the control group and four experimental groups also results in several notable findings. The public perceives a country that launches a tactical strike with multilateral constraint (group two) as most morally legitimate (a highly statistically significant outcome). At the same time, a country whose use of drones aligns with group two has a higher probability of escaping moral culpability for a civilian casualty. Statistically speaking, this means that there was no difference between the control group and experimental group two in terms of the moral responsibility for collateral damage. There is, however, a moderately statistically significant difference in moral culpability for a civilian casualty when comparing the control group with experimental group three — strategic use and unilateral constraint. Respondents in experimental group three thought that strategically oriented strikes with internally imposed constraint incur more moral responsibility for a civilian casualty than respondents assigned to the control or baseline group.

Statistically speaking, there was also no difference between the control group and experimental group four — tactical use and unilateral constraint — in terms of the public’s perceptions of moral legitimacy. Respondents in experimental group four seemed to demonstrate “cognitive wrestling” in making their assessments, meaning that they...
appeared confused about what constitutes a morally legitimate strike.97 “If there is no reason to choose one baseline over the other,” Walter Sinnott-Armstrong explains, “then our moral intuitions seem arbitrary and unjustified.”98 Of course, we must be careful to not overinterpret this result. This does not necessarily imply that the public does not perceive this pattern of tactical strikes with unilateral constraint as morally illegitimate. It only shows that we cannot be sufficiently certain whether or not it does compared to alternative models of strikes. Even so, this finding suggests that the use rule is at least as salient as the constraint rule.

More indicative of group four’s confusion, perhaps, is the time it took respondents to complete the survey compared to subjects in other experimental groups. It took respondents assigned to group four about two minutes longer to finish the survey. This is a notable finding because it suggests that respondents may have transitioned to deliberate moral reasoning given a clash of intuitions, which my analysis of subjects’ responses to the open-ended question seems to corroborate, as I discuss below. Emblematic of the reasoning of other respondents assigned to group four, one participant made the following observation when commenting on the legitimacy of the strike:

The fact that they were attacking a known terrorist, however, this is an assassination and not what I would consider proper justice, as they may have had the wrong person. But, lives may be lost by attempting to bring the terrorist to court, so it’s really a double-edged sword.

Demographic and Dispositional Results

Multivariate regression analysis sheds additional light on other factors that can shape the public’s perceptions of morally legitimate strikes.99 First, the results are consistent with previous findings that women can become more hawkish than men when forced to decide between killing U.S. soldiers or other combatants.100 Women in this study were more apt to perceive a country’s strike as morally legitimate than men, and by nearly half a point (a low level of statistical significance).

Second, higher levels of education are also related to perceptions that a strike is morally legitimate. Yet, the additive value is marginal. More education only accounts for one-tenth of a point improvement in legitimacy (a moderately statistically significant result).

Third, when aggregating respondents across all experimental groups, the multivariate regression analysis does not suggest that political ideology is a good predictor of whether the public will perceive a strike as morally legitimate. When comparing the implications of political ideology for the legitimacy outcomes across the control group and all experimental groups, however, the results suggest a more complicated picture. The more conservative a respondent, the more likely he or she was to perceive a country’s use of drones as morally legitimate, which is consistent with previous research.101 This finding is marginally statistically significant for group one (strategic, multilateral), moderately statistically significant for group two (tactical, multilateral), and highly statistically significant for group three (strategic, unilateral). Political ideology is not statistically significant in terms of group four (tactical, unilateral), meaning that how conservative or liberal a respondent was did not affect the legitimacy outcome. This is an unsurprising result given how confounding the scenario seems to have been for respondents. Indeed, group four is responsible for the statistically insignificant results for political ideology when aggregating respondents across all experimental groups, which the regression analysis reflects.

Fourth, support for the use of force abroad had a stronger effect on perceptions of legitimacy than belief in the role of great powers in ensuring global security. Respondents who demonstrated higher support for the use of force abroad (those who selected “agree” or “strongly agree”) perceived a
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strike to be more morally legitimate than those who did not, and by well over a point. This is the greatest impact of any single factor on perceived legitimacy, which amounts to approximately an 18 percent gain in legitimacy relative to the average perceived legitimacy outcome for respondents across all experimental groups (a highly statistically significant result). As illustrated in Figure 2, support for the use of force had the greatest impact on perceived legitimacy when it came to group two (tactical strike with multilateral constraint).

Open-Ended Question

Finally, my analysis of the open-ended question indicates that the public recalls more than one moral norm when determining the moral legitimacy of a strike (Figure 3). On balance, respondents drew on different combinations of moral norms depending on how a country uses a drone strike (tactically or strategically) and how the strike is constrained (unilaterally or multilaterally). Interestingly, an overwhelming number of participants did not emphasize physical courage when determining the moral legitimacy of strikes. This person-centered norm was only recalled by an average of eight respondents within each experimental group. This finding suggests that while scholars may characterize drones as “post-heroic,” “riskless,” “radically asymmetric,” “merely a technical vocation,” “morally deskill’d” or simply a “desk job,” most Americans do not consider the disconnected status of drone operators from the battlefield as much as other factors when forming a moral judgment. Instead, respondents emphasized either the outcomes of strikes in terms of soldiers’ safety or a country’s obligation to protect civilians. This finding is consistent with research on

102 Enemark, Armed Drones and the Ethics of War.
107 Sparrow, “War Without Virtue?”

Figure 2: Support for the Use of Force Abroad and Public Perceptions of Moral Legitimacy
Americans’ reticence to risk soldiers’ lives in combat. Even so, this emphasis on outcomes or obligations can change depending on how strikes are used and constrained, which I discuss below.

Discussion, Policy Implications, and Future Research

Below, I discuss my findings before addressing their potential implications for U.S. drone policy. To further understand the relationship between public opinion and drone warfare, I conclude my article by making several recommendations for future research.

Discussion

In line with my initial expectation, responses to the open-ended question suggest that, on balance, respondents did not typically relate the moral legitimacy of a strike to merely one norm, as war ethicists typically argue. Rather, respondents recalled unique combinations of moral norms from their norm system based on how a country uses a strike — tactically or strategically — and how that
strike is constrained — unilaterally or multilaterally. Group one (strategic, multilateral) recalled the moral norm of keeping soldiers safe more often than battlefield courage or duties of care to civilians when assessing the legitimacy of a strike. This may suggest that the public believes that the external oversight exercised by regional or international security institutions on a country's use of drones better accounts for civilian protection, giving respondents the space to emphasize the safety of soldiers more. Indeed, respondents' emphasis on the protection of soldiers and civilians flipped when a country uses a drone strategically with unilateral constraint (group three). What this seems to indicate is that the American public is aware that this model of drone warfare imposes greater risks to civilians, causing people to more closely link the moral legitimacy of a strike with the protection of civilians.

This trend is consistent with respondents' understanding of a tactical strike with multilateral constraint (group two), but for a different reason, it seems. Tactical strikes, though they may impose greater harms on soldiers because of heightened reciprocal risk between combatants and a more effective notice of self-defense on the battlefield, are also prone to errors given the lack of information and uncertainty, which is sometimes called the "fog of war." This apparently encouraged respondents to prioritize the moral norm of civilian protection most.

This trend breaks down, however, when a country uses tactical strikes with unilateral constraint (group four). Consistent with my other findings, and notwithstanding that this pattern of drone warfare increasingly characterizes how most countries use strikes, which is to say within their own borders and with little to no external oversight, respondents did not seem to know how to make sense of the legitimacy of these operations. Such confusion was reflected in respondents' recall of moral norms in such a way that it is impossible to decipher which one — or ones — take priority. Indeed, subjects in group four conflated moral norms the most.

In sum, the results indicate that the use and constraint rules, in combination rather than separately, encouraged respondents to draw on moral norms in unique ways when reflecting on the legitimacy of strikes. These results also echo a recent finding that Americans observing conflict “integrate instrumental and normative concerns about right and wrong” when assessing the moral status of wartime behaviors. The findings of this study also corroborate my hypothesis that shifts in why and how a country uses drones can shape the public's perceptions of morally legitimate drone warfare. As I anticipated, a country's tactical use of strikes under multilateral constraint (group two) garners the most moral legitimacy among Americans. This finding is important for at least two reasons. First, this pattern of drone warfare corresponds to French strikes in Mali, which some experts characterize as a distinct “French model.” France uses strikes selectively against terrorists affiliated with al-Qaeda and the Islamic State, and in consultation with a peacekeeping mission authorized by U.N. Resolution 2100 adopted in 2013. For example, France used a drone strike in August 2021 to kill the leader of the Islamic State in Africa, Adnan Abu Walid al Sahrawi. He was responsible for the deaths of French and Nigerian aid workers as well as four U.S. soldiers in 2017. Second, in conducting my analysis, I found that there was virtually no difference between the control group and group two in terms of the public's perceptions of moral responsibility for a civilian casualty, which is helpful for explaining the difference in attitudes toward and coverage of American and French drone strikes in Africa. Compared to America's adoption of so-called "over-the-horizon" strikes, characterized by the strategic use of drones with unilateral constraint (group three), respondents understand France's tactical use of drones with multilateral constraint to be more morally legitimate.

It is surprising that a country launching a tactical drone strike, rather than a strategic one, should encourage respondents to discount collateral damage resulting from that strike, particularly civilian casualties. What can possibly explain this intuition to discount moral culpability for a civilian casualty in


110 Dill and Schubiger, "Attitudes Towards the Use of Force," 630.

111 Vilmer, "Not so Remote Drone Warfare."


this case? It could be that respondents interpreted this pattern of drone warfare as resulting in “genuine accident collateral damage.”\textsuperscript{115} It is also possible that this pattern of drone warfare encourages the public to discount moral culpability for unintended consequences because strikes seem more reasonable, being conducted in a declared theater of operations with external oversight. David Taven refers to this as the “intention/side-effect” distinction that holds “intended killings are morally worse than unintended, side-effect killings.”\textsuperscript{116} Thus, my findings in this case are helpful to corroborate research suggesting that greater external oversight of military robots can shape perceptions of moral responsibilities for mistakes.\textsuperscript{117}

At the same time, the results confirm my suspicion that Americans cannot easily reconcile the moral legitimacy of a country’s tactical use of drones with unilateral constraint (group four). Indeed, both my statistical analysis and review of respondents’ feedback on the open-ended question show that Americans struggle to determine the moral legitimacy of this pattern of strikes, which is how most countries are using drones. In the absence of prior knowledge about this emerging pattern of drone warfare, it is possible that respondents assigned to group four simply conflated these strikes with U.S. political and military officials’ preference to use drones strategically with unilateral constraint. The potential for Americans’ heuristic reasoning in this case, however, deserves more careful study. Compared to the control group, respondents assigned to group three did not penalize the legitimacy of a country’s strategic use of strikes with unilateral constraint as we may have expected. This pattern of drone warfare corresponds to former U.S. President Donald Trump’s use of a strike to kill Iranian Maj. Gen. Qasem Suleimani in January 2020. A comparison to the control group also reflects that the relationship between a country’s use of strikes strategically with multilateral constraint (group one) and the public’s perceptions of moral legitimacy is not statistically significant. What these findings seem to suggest, then, is that a more reasonable explanation for the confusion of respondents assigned to group four is a genuine clash of intuitions that they cannot readily resolve, especially because the strike does not seem to affect them directly.\textsuperscript{118}

Finally, the results reinforce my expectation that several demographic and dispositional factors may also condition the public’s perceptions of moral legitimacy, albeit to different degrees. This is an equally important finding because while scholars often assume that social and political factors shape the moral status of drone warfare as intuited by the public, they do not often validate their claims.\textsuperscript{119} To the extent that scholars do conduct empirical research on the moral legitimacy of war, they focus on ground-based conflict as opposed to drone warfare, and concede that their experimental designs “hide heterogeneity among subjects.”\textsuperscript{120}

My study used empirically derived data to show that sex, education, belief in the managerial responsibilities of great powers for ensuring global security, and support for the use of force abroad can help to shape the public’s perceptions of the moral legitimacy of drone strikes. My analysis indicates that support for the use of force abroad had the strongest impact on participants’ understanding of what constitutes a morally legitimate drone strike. As reflected in Figure 2, respondents’ perceived legitimacy for a drone strike varied in terms of their support for the use of force abroad. The results in Figure 2 also suggest that, for respondents who do not support the use of force abroad, the tactical use of strikes is considered most legitimate, regardless of the type of constraint. I return to this finding in the conclusion because it suggests the possibility of evolving patterns of drone warfare globally that scholars have yet to rigorously explore in terms of public opinion. Instead, scholars usually interpret drone warfare as a U.S. phenomenon, although strikes against terrorists in faraway places no longer characterizes how countries predominantly use drones.\textsuperscript{121}

Together, these findings make several contributions to the scholarship on public opinion and drone warfare. First, whereas scholars often relate legitimate strikes to one moral norm, the results of


\textsuperscript{117} Rosendorf et al., “Autonomous Weapons and Ethical Judgments.”

\textsuperscript{118} Kaag and Kreps, Drone Warfare, 6.

\textsuperscript{119} Galliott, Military Robots, 10; and Davis, “Morality as Causality.”

\textsuperscript{120} Dill and Schubiger, “Attitudes Towards the Use of Force,” 631.

\textsuperscript{121} Schwartz, Fuhrmann, and Horowitz, “Do Armed Drones Counter Terrorism, or Are They Counterproductive?”; and James Igoe Walsh and Marcus Schulzke, Drones and Support for the Use of Force (Ann Arbor: University of Michigan Press, 2018).
my empirical study show that the public can combine these norms when adjudicating the legitimacy of a strike. These unique constellations of moral norms, which people rapidly recall from their norm system, are shaped by why and how a country uses drones. Second, besides providing new insights on the public’s recall of moral norms, the use and constraint rules explored in this study help to explain puzzling variations in the public’s perceptions of what constitutes a morally legitimate drone strike. Returning to the difference in how American and French strikes in Africa are viewed, the results suggest that the public may interpret the legitimacy of these strikes differently because of why and how drones are being used there, something that carries important policy and research implications, which I discuss below. Finally, inquiry into the moral legitimacy of strikes ties into the research agenda for the moral psychology of war. Overall, my study emphasizes the importance of taking an interdisciplinary approach to understanding the underlying mechanisms that shapes how the public forms moral judgments about drone warfare.\textsuperscript{122}

\textbf{Policy Implications}

These results have a number of implications for U.S. drone policy. My results suggest that the most morally legitimate type of drone warfare in the minds of Americans may be the tactical use of strikes with multilateral constraint. Ironically, this model of drone warfare corresponds to French strikes in Mali. This type of strike represents a compromise between U.S. officials’ preference for strategic strikes with unilateral constraint — take, for example, the Biden administration’s operation that killed al-Qaeda Senior Leader Ayman al Zawahiri in Afghanistan — and the total abandonment of armed and networked drones, which characterizes Germany’s position.\textsuperscript{123}

This finding does not mean that U.S. officials cannot — or should not — use strikes strategically to address security challenges abroad, especially terrorism. This is especially true given a body of recent literature that suggests that drones can be effective at reducing the incidence of terrorism both globally and in certain regions and countries.\textsuperscript{124} Rather, from a strictly moral position, this finding only suggests that it may be best for U.S. officials to refrain from using drones strategically if strikes do not have the approval and oversight of other countries.

Even then, constraint is a complicated matter. Not only have U.S. officials exploited the ease of using drones to circumvent congressional oversight and public accountability for the use of force abroad, causing Milena Sterio to characterize presidents as the “judge, jury, and executioner” when it comes to drone strikes,\textsuperscript{125} but when aggregating the results across all experimental groups, I also find that U.S. citizens generally view strikes as morally legitimate. Indeed, my findings indicate that the public does not always reward multilateral constraint as we might anticipate, though the tendency is for the public to perceive these strikes as most morally legitimate. At the same time, my results suggest that the public does not always punish unilateral constraint as we might predict. Americans, it seems, have outstanding questions about how countries use and constrain drones, which is most clearly reflected by the confusion of respondents assigned to group four (tactical, unilateral).

Thus, if U.S. officials continue to use drones strategically with unilateral constraint, which appears to be a foregone conclusion given the trajectory of U.S. drone policy across four successive presidential administrations since 2001, they should clearly explain the security benefits, the legality of the strikes, and the oversight measures that are being adopted to protect against civilian casualties. My analysis suggests that this latter action, notwithstanding strong support from conservatives and those who endorse the use of force abroad for strategic strikes with unilateral constraint, could help to further enhance the perceived legitimacy of strikes, at least among U.S. citizens. This policy adjustment is important because these “over-the-horizon” strikes circumvent congressional oversight...
What are the implications of using cheaper, commercially available, and easily weaponized drones, such as the Chinese-manufactured DJI, on public attitudes toward drone warfare?
and public accountability, which can impose un-intended security costs. Following the Suleiman strike, for example, Iran used ballistic missiles against U.S. military installations and personnel in the region.128 This suggests that the strategic use of drones with unilateral constraint risks escalating interstate tensions despite research that suggests that drones are inherently de-escalatory compared to other manned platforms, such as bombers and jets.129 This pattern of drone warfare, by necessity, also breaches the sovereignty of other countries and risks egregious, but preventable, errors taking place, as demonstrated by the Biden administration’s botched strike in August 2021 that killed 10 Afghan civilians rather than a suspected Islamic State terrorist.128

Fortunately, it appears that U.S. officials now recognize that American drone strikes abroad are not widely perceived as being morally legitimate and that they should continue to make critical changes to the country’s drone policy and operations. In early October 2022, for instance, the Biden administration reintroduced the Obama administration’s “near” certainty standard for no civilian casualties during strikes.129 Several months earlier, in late August 2022, the Department of Defense also released the “Civilian Harm Mitigation and Response Action Plan” to help to minimize civilian casualties during strikes.130 The 36-page plan institutes a blistering set of changes. Among these, it defines the “civilian environment” as the context for military operations. It introduces “Civilian Environment Teams” to help commanders to understand the human terrain and establishes “Red-Teaming” to minimize cognitive biases, such as confirmation bias, that can result in preventable targeting errors. The plan introduces a new architecture across the U.S. military, overseen from the Pentagon, to implement these sweeping doctrinal, planning, and training changes to mitigate civilian casualties during future wars. Secretary of Defense Lloyd Austin also emphasized that the plan is applicable to large-scale combat operations between countries as well.131

Political officials should continue to emphasize the need for these modifications as a way to change the culture within the U.S. military to further account for the protection of civilians in planning and operations. Indeed, defense leaders are beginning to understand that civilian protection can be both a measure of effectiveness as well as a measure of performance, which is a change that human rights advocates and groups have long endorsed.131 Instead of simply pointing to the lack of civilian casualties as a way to explain how well U.S. forces conduct operations, military leaders increasingly view preventing civilian casualties as a key wartime objective in its own right. Rather than merely asserting that U.S. drone strikes are “righteous” or legitimate because they kill terrorists,132 as was the case following the strike in Afghanistan in August 2021, political and military officials now make an effort to explain in great detail what unilateral constraints they adopted to prevent civilian casualties. Biden’s statement to the American people following the death of al Zawahiri is one recent example of the U.S. military’s heightened sensitivity to civilian casualties as a result of policy guidance from elected officials. President Joe Biden explained that the “mission was carefully planned and rigorously minimized the risk of harm to other civilians. And one week ago, after being advised that the conditions were optimal, I gave the final approval to go get him, and the mission was a success. None of his family members were hurt, and there were no civilian casualties.”133

126 Lushenko, Bose, and Maley, eds., Drones and Global Order.
128 Kreps and Lushenko, “US Faces Immense Obstacles to Continued Drone War in Afghanistan.”
Future Research

The results of this study also indicate a number of paths for future research on the moral permissibility of strikes. As a first step, researchers should conduct surveys in countries that have also adopted drones to determine the generalizability of this study’s findings. Among other scholars, Hodges cautions that “the concept of legitimacy is highly contingent on context and the audience performing the assessment.”\(^\text{135}\) My initial research suggests that, while the public’s perceptions of legitimate strikes can be a function of why and how drones are used, the outcomes for legitimacy can also be shaped by which country is conducting strikes, whether the strikes have international approval, and the unintended consequences of such strikes, especially civilian casualties.\(^\text{136}\)

Researchers should also consider conducting cross-national surveys to better understand how the use and constraint rules may shape perceptions of morally legitimate drone warfare among publics within targeted countries. This line of inquiry is critical given Jonathan Haidt’s argument that intuitions are both innate and enculturated, suggesting that the public’s perceptions of morally legitimate strikes may be patterned differently across the globe.\(^\text{137}\) To the extent that other scholars assess the attitudes of publics within countries that are being targeted by drones, they conduct field research in dangerous settings that, while helpful, can be prone to bias. Their respondent pools consist of citizens affected by drones, making it difficult, if not impossible, to determine what actually accounts for citizens’ perceptions of legitimacy.\(^\text{138}\)

Is it citizens’ prior beliefs about drones that shape their attitudes? Or is it exposure to harm during a strike that shapes their beliefs?

It may also be useful for researchers to investigate additional conditions that could shape the public’s perceptions of moral legitimacy. Future studies could use different survey designs to vary the type and circumstances of civilian casualties. Researchers could also explicitly identify the targeting and targeted countries, as well as further specify the meaning of multilateral constraint. This includes defining the composition, disposition, and scope of coalitions, as well as authorization from the United Nations for conducting drone strikes. Research shows that approval from the United Nations for the use of force helps to shape the public’s attitudes toward wartime behavior, which is likely to extend to drone strikes as well.\(^\text{139}\) Similar to recent research by Kersten Fisk, Jennifer L. Merolla, and Jennifer M. Ramos,\(^\text{140}\) as well as Michael Horowitz and Erik Lin-Greenberg,\(^\text{141}\) scholars could also explore the microfoundations of respondents’ understanding of legitimate drone warfare, which may reflect that additional core beliefs and values underline subjective beliefs of appropriate strikes. Finally, what are the implications of using cheaper, commercially available, and easily weaponized drones, such as the Chinese-manufactured DJI, on public attitudes toward drone warfare? Audrey Kurth Cronin notes, for instance, that these dual-use capabilities impose security challenges that are not as well understood by scholars.\(^\text{142}\) Indeed, this model of drone warfare has emerged in Ukraine, but we have little understanding of what the implications are for the public’s perceptions of morally legitimate strikes.\(^\text{143}\)

137 Haidt, “The Emotional Dog and Its Rational Tail.”
Conclusion

In conclusion, though scholars have studied, and continue to study, public opinion about drones, many questions remain. The purpose of this article was to explore one outstanding question relating to how the public understands the moral legitimacy of drone strikes. Scholars often define morally legitimate drone warfare either in terms of soldiers’ physical courage, the protection of soldiers, or the protection of civilians. While useful, the existing literature is based more on anecdote and scholars’ intuitions than analysis of empirically derived data about the public’s perceptions of moral legitimacy. This reflects a general hesitancy among researchers to treat legitimacy as a dependent variable, though my study shows this is possible to do. At the same time, the existing literature has not explored how — and why — person-centered and act-based moral norms may work in concert to shape the public’s perceptions of morally legitimate drone strikes.

Anticipating that this may be the case, I introduced a novel middle-range theory based on informal rules to help to explain how and why individuals’ norm systems may be triggered when they learn of a drone strike, thus shaping their judgments about the moral legitimacy of a given operation. I used an original survey experiment among a broadly representative sample of Americans to show that why a country uses a drone — tactically or strategically — and how it constrains a strike — unilaterally or multilaterally — can shape respondents’ understanding of legitimacy, and that these judgments reflect unique combinations of moral norms. In doing so, I respond to previous research that urges scholars to “unpack” the mechanisms of perceived legitimacy in the context of military interventions abroad, of which drones are now a favored tool.144 Going forward, this framework may provide scholars, policymakers, and practitioners with a useful way to explain the broader evolution of drone warfare globally and to interpret the legitimacy outcomes, which most experts agree is integral to the sustainability of strikes abroad.145

The views expressed in this article are the author’s own and do not represent the views of the U.S. government, Department of Defense, or the U.S. Army.

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