Fighting in the War Room: Electoral Origins of High-tech Warfighting

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Abstract

How do states fight? The objective model of civilian control of the military provides an ideal type answer: political leaders determine entry into war, then military elites determine how to fight to win it. If the military is singular in formulating strategy and translating it to operations and tactics, explaining variation in warfighting is more straightforward. Civil-military relations research suggests that this is not the case, however, political leaders being causal in the development of strategy and sometimes intervening at operational and tactical levels. Yet the civilian side of this exchange is underexamined, leaving blind spots about profound electoral incentives and constraints on wartime decisions. We present a theory that when politically vulnerable, executives interfere further in the grammar of war to reduce electoral liability. Specifically, they shift the range of acceptable military options toward higher-tech force structures, which avert risks and offer higher civilian control over operations and optics. Using new data that features the means of force for an expansive list of US military operations from 1989 to 2021, we demonstrate robust support that higher presidential disapproval is associated with higher tech means of force. This contributes to literatures on civilmilitary relations, force structure design and warfighting, the domestic politics of war, and the politics of emerging technologies.

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In August 1998, two volleys of cruise missiles targeting al Qaeda assets (allegedly including bin Laden) in Sudan and training camps in Afghanistan obliterated their intended targets. Launched in response to the United States (US) embassy bombings in Kenya and Tanzania, the operational objectives of retaliation and enemy degradation were attained. Yet following a series of foreign policy faux pas and fiascos, President Clinton's overarching aim was to send a fearsome message to the American public and to al Qaeda and aspiring militants alike. In planning Operation Infinite Reach, he remarked to his Joint Special Operations Command chairman: "what I think would scare the shit out of these al Qaeda guys more than any cruise missile... would be the sight of US Commandos, ninja guys in black suits, jumping out of helicopters into their camps, spraying machine guns. Even if we don't get the big guys, it will have a good effect" (Sahay 2013). Given 9/11, the success of the strategic objective of these strikes—signaling deterrent resolve—is doubtful. Would this have been better signaled with black-clad commandos repelling into the heart of an enemy camp? This counterfactual begs a broader question about how strategic objectives are translated into operational and tactical actions in war. In short, how do states fight?

The classical answer is that the military decides this. Huntington's objective model of civilian control suggests that civilian and military elites enjoy total autonomy in their respective domains (Huntington 1957). Political leaders determine when and whom to fight given the national interest, then war commanders determine how to fight given the match up and combat theater. With this configuration, theories on military and battlefield innovation and bureaucratic change are most appropriate to explain variations in how states fight. Yet reality is not so cut and dry. In fact, political leaders credit claim amid success and bear the brunt of blame for failures and losses in war rather than the military. Structural arguments for the democratic peace hinge on this, suggesting that democratic leaders carefully select into conflicts with a high probability of success and fight harder to preserve their electoral prospects (Lake 1992; Bueno de Mesquita and Siverson 1995; Bueno de Mesquita et al. 1999;

Bueno de Mesquita and Ray 2004). Focusing on how states fight during war, the capital- vs. labor-rich literature posits that wealthy democracies are prone to build high-tech arsenals to decrease costs of war (casualties) to the median voter (Gartzke 2001; Caverley 2009; 2014).

Research on civil-military relations (CMR) zooms in on the fault lines of these interactions to examine decision-making during conflict. Parsing the domains and agency of political and military actors, it depicts the division as blurry, dynamic, and porous. At times, military elites encroach on policymaking, potentially putting norms of civilian control at risk and subjecting the national interest to parochial aims. In the other direction, political leaders sometimes micromanage the operational and tactical prosecution of war, hamstringing battle-seasoned flag officers. With strong normative leanings, the majority of CMR literature diagnoses risks to ideal models of civilian control of the military, examining and offering prescriptions for military pathologies (Schmidt 2022; Weiner 2022). Consequently, most of the scholarly literature has analyzed the military institution to explain variation in combat force structure, strategy, and success. Shying away from scrutiny of the civilian side has resulted in blind spots in academic understanding of civil-military power dynamics and their effects on conflict (Friend 2022).

We shift focus to the civilians to examine how electoral incentives and constraints generate systematic preferences that condition CMR dynamics. When politically vulnerable, executives not only carefully select into conflict but also seek to intervene in and more carefully control its deployment. We argue that a key way executives do this is through force structure decisions. Larger military footprints entail higher risks of casualties and less civilian control. Conversely, higher-tech options diminish risks to ground troops and offer civilians more latitude over operations and optics. Presidents cannot order how ground troops enter an enemy-controlled city, for instance, but can order a cruise missile or drone strike. Conceptualizing civil-military relations as a bargaining model, we expect that civilian leaders facing electoral risks will rationally shift the bargaining range toward higher tech approaches

in an existing conflict. We test this relationship using new data that features the means of force for an expansive list of US military activity from 1989 to 2021 disaggregated to the operational level (Gannon and Chávez 2023). We find that higher presidential disapproval robustly predicts higher tech means of force, independent of several operational and tactical controls and military campaign fixed effects. We also observe that multilateral operations, where risks, costs, and possibly blame can be shared across national partners and civilian leaders have less latitude to coordinate, feature lower tech configurations. Contrary to literatures locating this bias toward high-tech approaches solely in military culture, we observe origins in political actors as well. Overall, we demonstrate that electoral politics affects not just entry into or exit from war, but also its operational prosecution.

This study makes several contributions to existing literature. First, we provide a novel vantage point and evidence on civilian incentives and behaviors in the CMR dynamic. To strike the ideal balance of civilian control of the military, academics and practitioners must be clear-eyed about cross-pressures and behaviors on both sides. To accomplish Schake's advice that "the best way to address the civil-military imbalance is to strengthen the civilians, not weaken the military," one must first understand ways and conditions under which civilians are weak (Schake et al. 2021). Second, with more expansive, granular data on the US case, we offer quantitative evidence of the factors influencing force structure design. This is a rarity in the mainly normative, theoretical, and qualitative CMR literature. It is also an improvement on quantitative studies of force structures that model the aggregate intervention level or focus on possession or use of a single platform in the military toolkit. We also add to understanding on the domestic politics of war, analyzing more closely how public opinion impacts wartime decisions. Finally, our study provides new insight on the politics of emerging technologies. Beginning at the advent of the cruise missile and encompassing the rise of unmanned aerial vehicles (UAVs), our sample enables us to explore how leaders view and exploit new military platforms. The paper proceeds with a survey of CMR and warfighting literatures, a section detailing our theoretical narrative yielding two testable hypotheses, discussion of our data and statistical results, and concludes with some implications, limitations, and ideas for future research.

Civil-Military Relations and War

Studies on the relations of political elites and military leadership tend to fixate on or take the military gaze. One reason is that the military is easier to analyze as a more coherent institution, but the main rationale stems from the civil-military problematique (Feaver 1999), that states must main militaries powerful enough to prevail in war yet voluntarily submissive to civilians. For much of its history, US leaders skeptical of standing armies aimed to keep them more defanged and domesticated. With the 1986 Goldwater-Nichols Act shifting substantial policymaking power and resources to the military, CMR scholarship has heavily focused on how to attain and maintain healthy civilian control of the military (Schake et al. 2021). In doing so, it often manifests as debates over which ideal type best balances the civil-military paradox in democracies. As a result, most of it examines sources and symptoms of military overreach from a normative, prescriptive posture (Schmidt 2022; Weiner 2022).

Ideal Type 1 - Military Autonomy

The seminal solution to the civil-military problematique is Huntington's objective model of civilian control (Huntington 1957). By separating authority into discrete domains of responsibility, each actor can hone exclusive expertise. Free from pressures of politics and civilian micromanagement, a professionalized military skilled in the art of war is more effective at strategic assessment and operational execution. Proponents often cite Vietnam as evidence, arguing that civilians drove strategy against military wisdom and officers learned too late that unquestioning obedience can go awfully awry (Desch 2007). Since then, partisan po-

larization has mounted and civil servants increasingly lack experience and stable tenure to dictate sound strategy (Schmidt 2022), poisoning and hollowing civilian contributions. In the view of "professional supremacists," the ideal model is military autonomy over strategy and operations and the primary problems are civilian intervention and voices eclipsing military insight (Feaver 2011).

These supposed problems were present throughout the Iraq War. Desch (2007) paints a picture of hawkish civilians overruling a reserved military, arguing that this dynamic typifies most debates about the use of force. Key figures in the Bush administration judged Clinton to be too lax toward the military and expressed intentions to keep a tighter rein (Mann 2004). Contrary to popular opinion of a sedate leader restraining a trigger-happy war machine, officials intervened when they felt military plans were too timid. This extended well into operational planning, including force sizes and deployment schedules. Despite the campaign's questionable record, civilians continued to push against the advice of much of the military with the 2007 Iraq surge. Involving the insertion of tens of thousands more ground troops into a foundering nation rife with factional violence, one officer described W. Bush's plan as "180 degrees out of sync with the uniformed military's view of things" (Payne 2020, 187). Brooks (2008) explains that the Joint Chiefs of Staff (JCS) were marginalized in the process, undermining the quality of debate and compromising strategic coordination. Although flag officers ultimately signed off on the surge, many did so grudgingly (Feaver 2011). The Iraq case might suggest that civilian intrusion into the military domain is flawed.

Warfighting with Military Autonomy

Theories of democratic victory suggest that these regimes are more formidable in combat due to meritocratic incentive structures, battlefield initiative, and leadership (Reiter and Stam 1998a;b; Bueno de Mesquita et al. 1999). This appears to support arguments for the objective model of civilian control. At the same time, this model must reckon with missteps

and losses in the empirical record as well. If the military is responsible for the strategies, operations, and tactics of war, then it is solely responsible for failures. The literature on military myopia attempts to explain this. It claims that advanced democratic militaries, while performing with astounding prowess in conventional wars, tend to suffer failure in unconventional contexts. In these settings, weak actors compensate with cunning strategy, innovating ways to deflect brute force, attrite the enemy's will, and control populations through allure or fear (Mack 1975; Arreguín-Toft 2001; Kydd and Walter 2006; Fortna 2015). For example, they embed in civilian populations or obscuring terrain where the value of direct force and advanced military technologies diminish. The war winning response would be to mimic indirect strategies so that the strength of a superior military meets the adversary's weakness on a level field.

Mack (1975, 179) speculates that "strategic doctrine tends to mold itself to available technology". With the luxury of procuring exquisite platforms, risks and costs of war can be outsourced to high-tech force structures. Given their purported penchant for this including when it is not operationally applicable, strong democratic militaries have been characterized as techno-fetishist, swept up in the revolution in military affairs that promises to clear the fog of war and insulate soldiers from harm (O'Hanlon 1998; Owens and Offley 2001; Bolton 2015). In unconventional contexts, where strategy depends on popular mobilization and contests of political will, high-tech approaches undermine interaction, social capital, and victory (Galula 1964; Gentry 2002; Lyall and Wilson 2009; Kocher, Pepinsky and Kalyvas 2011; Long 2016). In sum, militaries overly and naively reliant on technology to their detriment are myopic, missing the mission for the UAVs.

Doubts in civil-military relations literature aside, there are reasons to be skeptical of this theoretical logic. Van Wie and Walden (2023) demonstrate evidence for an armored restraint theory, showing that mechanization in unconventional warzones grants foot soldiers decision space to discriminate targets leading to lower civilian casualties than dismounted

units. This contradicts assumptions that technology undermines social capital in unconventional settings. Lindsay (2013) argues that high-tech doctrines are not incompatible with unconventional conflict, citing US Special Operations Command's adaptation of doctrine, organization, and technology to succeed in America's counterinsurgencies. Indeed, warfare is sociotechnical, making techno-centric warfare among the people well within its domain if properly done. There is also ample anecdotal evidence of US military adaptation in war and peace times, including in unconventional contexts with low-tech force structures. Thus, while the civil-military ledger remains unclear, theories of democratic victory in conventional settings and military myopia in unconventional ones are insufficient to explain the variation in conflict conduct and outcomes.

Ideal Type 2 - Civilian Intervention

"Civilian supremacists" posit an opposite model to proponents of military autonomy, identifying increasing military influence as the problem and civilian intervention as the solution. They contest that political leaders are entitled and obligated to intervene not only in asserting policy objectives for war, but also in "ways and means" (Cohen 2003). To ensure that operational and tactical activity aligns with strategic and political goals, civilians must regularly interface with the grammar of war. If left to their own devices, military elites will forget that war is an instrument of policy and pursue parochial doctrines, organizational interests, or military victory as an end in itself (Posen 1984; Van Evera 1984; Prior and Wilson 1999; Nix 2012). Perhaps the military is myopic after all. More pernicious, the military might undermine, dissent, and disrupt civilian control. Commonly called "boxing presidents in," military elites can control information flows, leak information to the press / public, threaten resignation in protest of a civilian course of action, turn to Congress, and

¹A recent open letter signed by several past Secretaries of Defense (civilian) and Joint Chiefs of Staff (military) emphasized that civilian control applies to both policy and operational commands (*To Support and Defend: Principles of Civilian Control and Best Practices of Civil-Military Relations* 2022)

slow-roll orders (Schake et al. 2021; Brooks and Erickson 2022). Cooper (2001) reconsiders Vietnam, arguing that professional supremacists misread it and come to harmful conclusions that civilians should stay out of conflict. Rather than mismanagement by civilians ignorant of air operations, their success varied by target and over time with learning and dual input.

The Tangled Reality

This dynamic—dual input—reflects reality of the formulation and translation of strategy. Feaver (2011, 93) observes that "everyone recommends some sort of give and take between the military and the civilians ... What distinguishes different theorists from one another is where they position themselves along this mushy middle ground of who should be giving more and taking less." Civilian leaders rely on expert military advice as a cognitive shortcut in decision-making, yet do not want to yield entire autonomy to a war machine. Meanwhile, military elites with a monopoly on such insights make every effort to influence civilian choices in their favor (Schmidt 2022). This power struggle afoot, many affirm that there is no fixed division between the domains, but that it shifts with elite interests, threats, technologies, and other factors (Nix 2012; Feaver and Kohn 2021; Weiner 2022). Brooks (2020) argues that expressions of modern warfare—counterterrorism, counterinsurgency, gray-zone warfare—cannot be divided into discrete domains of expertise, leaving open questions about who does what, how much, and when. Nix (2012) agrees that activities in the range of military operations required fused military and political acumen on the battlefield to achieve unity of effort and legitimacy.

All this implies that the civil-military balance is more dynamic during all stages of conflict, not conceptually separated into domains or temporally separated into stages of a military-led middle sandwiched between civilian-led onset and termination. While scholars exhibit normative leanings toward ideal models, they concede that interfaces at strategic fault lines remain unclear (Brooks 2020). While we have our own normative stances, we

are more interested in the activating conditions, causal mechanisms, and empirical effects of civil-military relations. Given the scholarly focus on military actors, much less is known about the impact of civilian incentives and constraints on the prosecution of war. Mapping these will illumine strategic fault lines and clarify the effects of outcomes of ideal type civil-military frameworks. Following Talmadge (2015) who quips that it is not whether political leaders intervene but why and how, we investigate the why and how to shed light on this crucial relationship.

Electoral Incentives and Civil-Military Bargaining

Statesmen and flag officers have different vantage points, professional cultures, and incentive structures. Although sitting across the table in the same war room, generals should be scheming for military efficacy while executives should encompass the broader national interest and spectrum of statecraft. President Obama (2020, 183) captures this contrast well in his memoir: "I couldn't blame Petraeus for wanting to finish the mission. If I were in your shoes, I told him, I'd want the same thing. But a president's job required looking at a bigger picture, I said, just as he himself had to consider trade-offs and constraints that officers under his command did not." In an anonymized interview, a political appointee reinforced: "Military officers seek operational certainty. Civilians seek political certainty. Military officers are less able to judge the political consequences of their conduct and will take political risks to avoid operational risk. And, likewise, civilians are less able to judge the military consequences of their conduct and will take operational risks to avoid political risks" (Schmidt 2022, 127). This applies to decision-making tempos and processes too, civilians wanting flexibility to keep options open until a decision-point and officers wanting clear, specific decisions as soon as possible to enable planning (Feaver and Kohn 2021). JCS Chairman Dempsey articulated that while the military begins with a clear objective and generates courses of action ranked by risk, civilians want to hear all possible options to reverse-engineer their objectives (Hooker and Collins 2015). No doubt these stylistic differences will lead to some fighting in the war room.

There is another, more substantial difference between political and military elites that affects their relations: electoral incentives. As single-minded seekers of reelection (Mayhew 1974), executives balance wartime decisions with their personal political futures (Eikenberry 1996; Payne 2020). Conceptualizing civil-military interactions as a bargain, we submit that this difference profoundly structures the bargaining environment and sequence. Speaking of counseling Obama, a former member of the JCS describes the simple CMR scenario: "I would sit down and give it to him behind closed doors, and say, 'Here's the plus, and here's the minus. I understand where you're coming from. As long as you stay inside these boundary conditions, we can probably live with a solution anywhere in this area" (Schmidt 2022, 105). In short, the military submits a range within which civilians can locate a preferred option. Yet, presidents enter these scenarios with their own higher-order range of what is politically acceptable (Sobel 2001; Farnham 2004). If military advice does not fall within it, civilians are compelled to reject it and request new or revised options. Payne (2020) explains that presidents dampen proposals, scaling down or removing unpopular aspects to minimize the electoral impact. Thus, plans deemed to carry too much electoral risk will be eliminated or altered even if they entail higher chances of military victory.

It is under conditions of no or minimal overlap that presidents lament being boxed in and that officers protest the mission is being undermined. Both Obama and Trump complained about the former, but Schake et al. (2021) interprets that this is simply subtext for civilians not wanting to pay a political price for the decision. A former Combatant Commander with National Security Council experience agrees: "to say a president is "boxed in" is really to say that a president is forced to face reality. Presidents can hope for options that meet their political needs, but it rarely happens in the realm of national security" (Schmidt 2022,

120). Military officials ordered to execute suboptimal proposals scaled to suit political constraints might salute and obey, but in the aftermath they justifiably place responsibility for outcomes on the president who ordered it. Although diplomatic and restrained, JCS Chairman Milley (2021) testified before Congress that he voiced that an accelerated withdrawal "risks losing the substantial gains made in Afghanistan, damaging U.S. worldwide credibility, and could precipitate a general collapse of the ANSF and the Afghan government, resulting in a complete Taliban takeover or general civil war." Throughout the hearing, he and his counterparts affirmed that military advisors offered Biden options, the president heard and considered them, and then made a decision that the military implemented to the best of its ability.

Several things will determine the president's range of politically feasible military options—salience, interests at stake, public perceptions of the threat, images of the enemy, etc. We focus on one electoral constraint that we expect will produce systematic effects. Executives are pervasively concerned with public approval. Even outside of campaign and election periods, presidential approval operates like real-time referenda (Crespi 1980). As summary appraisals of the leader's competence, higher numbers strengthens influence over policy, legislation, and legacy (Rivers and Rose 1985; Canes-Wrone and De Marchi 2002). As approval plummets and disapproval mounts, politicians are acutely aware of electoral vulnerability. We argue that facing electoral risks, manifest in high disapproval levels, civilian leaders will shift the politically acceptable range toward higher-tech military options for three reasons.

First, high-tech force structures reduce risks to warfighters. It is well-established that casualties condition public support for conflict (Gartner and Segura 1998; Gartner 2008; Tomz, Weeks and Yarhi-Milo 2020). In an experiment comparing the logics of public support for military force, Dill and Schubiger (2021) illustrate that instrumental logic pertaining to military effectiveness is present, but not prevailing. The only factor that outstrips all others, including moral and legal logics, is the imperative to minimize US military casualties. An

obvious way to protect soldiers is to remove them from the edge of battle, where exposure to enemy fire is highest. Sapolsky and Shapiro (1996, 122) comment that "technology is our first answer to the lethal hazards of waging war". Shea (2015) contends that risk-aversion is only made possible by unnmanned platforms and precision strike munitions at a standoff distance. Dubbing it danger-proofing, Waldman (2018) asserts that civilian leaders have a force protection fetish for exquisite platforms that allows them to fight war with fewer political consequences. The capital- versus labor-rich framework also links democratic political constraints to advanced weapons platforms, explaining that wealthy nations can shelter voters from the costs (casualties) of conflict by fielding exquisite systems in lieu of troops (Schörnig and Lembcke 2006; Caverley 2009).

Payne (2020)'s account of Obama's drawdown to zero in Iraq showcases this logic. After the 2010 midterm elections, Obama solicited proposals for a residual force. The closer his 2012 campaign, the more he truncated the number of acceptable troops. After the White House rejected General Austin's initial proposal of 20,000 to 24,000 troops, he revised it down to 19,000, then a "minimally acceptable" 16,000, then a "bare bones" 10,000 after repeated rejections. When it hit 8,000, Admiral Mullen sent a rare memo warning the president that the mission could not be achieved. When the administration began to explore the notion of a 3,000 strong residual force, Mullen balked that it was a "half-baked idea... blind to reality" (Payne 2020, 196). Ultimately, against strong preferences of a strong military majority, Obama's political incentives won out. Under conditions of electoral risk, we expect leaders to weight casualty-aversion over military efficacy and thus to insist on higher tech approaches in the war room.

The second reason embattled executives might have a bias toward high-tech means of force is that they offer more civilian control in operations. Presidents cannot intervene in the real-time, dynamic decisions that field commanders deployed in a battle theater make. They can, however, order an air or drone strike on a high-value target when political and operational

stars align. For instance, while Obama was drawing down to zero in Iraq he was ramping up his drone strike campaign operated through the Central Intelligence Agency (CIA) for greater latitude, personally reviewing and approving every new name on the kill list (Becker and Shane 2012). Pondering whether public opinion is a healthy constraint or an obstacle in implementing optimal foreign policies, Holsti (2004) asserts that speed and flexibility are critical traits in conflict. Exquisite aerial platforms, piloted and unpiloted, can be quickly deployed with no need for proximate base support, granting civilian leaders considerably more flexibility than ground forces. Hence, when under electoral pressure presidents will place higher value on high-tech force structures that grant them greater control over the tides of war.

Finally, high-tech force structures afford executives higher control over the optics of conflict. More conducive to secrecy, presidents can scale the publicity of and official script for operations for political gain (Demmers and Gould 2020). Turning again to drone campaigns, despite an astronomical count of strikes performed the public is only aware of a handful of salient cases, either because of major operational flubs (i.e., accidentally killing school children) or because leaders tout and credit claim major successes (i.e., the targeted killing of Iranian General Qasem Soleimani).² Since information on military operations featuring advanced platforms is easier to censor and control, it also facilitates political framing. When the Obama administration reported miniscule civilian casualties from drone strikes, watchdog data collectors contested that he was hand waving and hiding behind an artful definition of militants (any military-age male in the strike target area). Using a criterion that only those identified in credible news and intelligence reports constitute a militant, New America finds that the majority of casualties are civilians and only 2% of fatalities in Pakistan and 6% in

²We recognize that a significant proportion of drone strikes are conducted by the CIA rather than the Pentagon, undercutting the notion of civil-military bargaining over the conduct of war. Indeed, our data do not capture CIA-led strikes since we focus exclusively on military operations. Nonetheless, this supports the notion that civilian leaders gravitate toward high-tech platforms for the control and flexibility they offer. That presidents skirt the military to use these in lieu of civil-military bargains only reinforces that logic.

Yemen were high-value targets (Bergen and Rowland 2014). In sum, for their advantages in risk-aversion and operational and optical control, we submit that politically vulnerable executives will have a strong preference for high-tech approaches in war, leading to our hypothesis:

H1 - Disapproval Constraint: The higher a president's disapproval, the more military operations will feature high-tech approaches.

{Hypothesis on multilateralism in operations pending.}

Research Design

Data and Sample

To test the effects of electoral constraints on operational force structure decisions, we leverage a new dataset on US Military Operations with Novel Strategic Technologies (MONSTr) from 1989 to 2021 (Gannon and Chávez 2023). The data have several advantages enabling us to examine the independent effects of public opinion on operational approaches. First, it features the military means used—ground troops, paramilitary forces, close air support (CAS), aerial bombing, cruise missiles, and / or drone strikes—for every observation. Second, it disaggregates military interventions³ into individual operations, enabling significantly more granular analysis. Thus, the unit of analysis is the US military operation. This is important for our research question since we are interested in how states fight in the grammar of war.

³All interventions coincide with definitions in the reputable Military Intervention by Powerful States (MIPS) and International Military Intervention (IMI) datasets. Combining the gold standard Department of Defense definition of a military operation with the scoping conditions of a military intervention from MIPS and IMI, an observation in the dataset is "A series of tactical actions (battles, engagements, strikes) conducted by combat forces in an operational theater to achieve strategic or campaign objectives in the context of a political issue or dispute through action against a foreign adversary. Routine military movements and operations without a defined target like military training exercises, the routine forward deployment of military troops, non-combatant evacuation operations, and disaster relief are excluded" (Gannon and Chávez 2023, 6).

Third, the dataset identifies the campaigns and wars in which each operation is nested, allowing us to hold constant several strategic and structural confounding traits to isolate the effects of electoral pressures on the means of force.

Variables

To measure the degree to which a military operation is high-tech, we innovate with the means of force indicators in the dataset in three ways. For the first version of the dependent variable, we identify all bundled combinations of the means of force (6 factorial possibilities) and rank them according to a logic of political risk. In the ranking process, we penalize ground troops as the highest risk since they are exposed to enemy fire on front lines, paramilitary troops as second since they insert in smaller numbers for precarious but often secret mission scopes, and CAS third since it entails piloted aircraft at low altitudes in combat support situations. Aerial bombing is ranked fourth, being lower-risk than CAS units that enter the fray but higher-risk than unpiloted platforms since contingencies entail casualties. For the unpiloted platforms, we assess cruise missiles to be slightly higher-risk since upon launch they cannot be disarmed or recalled the way that drones, with their loitering and discriminant capacities, can. With these risk-related penalties, higher values of the RANKED BUNDLE measure imply higher levels of risk and lower values signify risk-averting, high-tech structures. Since this might not be an ideal way to proxy political risk, we run all models with two other specifications of the dependent variable. The RISKIEST OPTION version scores each operation according to the highest-risk means of force listed. The WEIGHTED INDEX approach numeralizes each approach according to risk, then sums all means featured in an operation to ultimately produce an average score. While each of these might invite criticism or involve tenuous assumptions, we hope to mitigate them by testing the hypothesis using all three to ensure robustness. Figure 1 shows the distribution of the dependent variables across the entire universe of cases.

[Figure 1 about here]

To test our hypothesis that presidential disapproval will compel civilian elites toward high-tech approaches, we use the American Presidency Project's running tally of Presidency Dential Disapproval (Woolley and Peters 2010), measured in the month prior to each given operation. We include several controls that theoretically covary with the independent and outcome variables. First, we include an indicator for whether the operation is Multilateral, expecting that with burden-, cost-, and blame-sharing they are prosecuted differently than unilateral ones (Weitsman 2010; Gannon and Kent 2021; Cappella Zielinski and Grauer 2022). We also add an indicator for the presence of a major Nonstate Actor in the conflict theater. Since it is more difficult to asses the capabilities and resolve of violent nonstate actors, and since they tend to employ unconventional tactics to offset capability asymmetries, we think that civilian and military elites assess them distinctly.

Next, we control for cumulative US CASUALTIES across all conflicts, logged to normalize the distribution and lagged by one month. Although this feeds into our logic of why civilian leaders would gravitate toward higher-tech force structures, we are seeking evidence that this works through civilian incentives rather than military caution (Smith 2005; Boettcher and Cobb 2006; Dill and Schubiger 2021). Fourth, we include an ordinal measure for whether the operational location is URBAN, coded 1 for urban settings and 0 otherwise. Urban warfare is more complex, involving artificial structures, civilian populations in which nonstate combatants can embed, and strategic assets. It should be correlated with the presence of ground troops, versatile enough to navigate its nuances.

Fifth, we include a measure indicating whether the terrain is Rugged. The more rugged, the more difficult it will be to traverse with ground troops so the more likely it will involve small footprint approaches (Shaver, Carter and Shawa 2019). OIL EXPORTER indicates whether the operation is located in a nation exporting oil to the United States, possibly introducing an energy / economic dynamic into the political calculations (Kushi and Toft

2022). To control for geographic and mobilization-related factors like the loss of strength gradient, DC DISTANCE measures how far the operation is from Washington, DC (Hulme and Gartzke 2020) and BASE DISTANCE capturing how far the operation is from a major US military base where military resources are likely on the ready (Allen, Flynn and Martinez Machain 2022). Additionally, we include the number of DAYS INTO THE PARENT campaign the operation occurs to account for temporal trends in the lifecycle of a war. For example, aerial bombing to mitigate enemy defense systems often precedes ground invasions. Although the Gulf War's aerial bombing campaign lasted for five weeks, 40% of US cruise missiles were launched during the first 48 hours of the conflict (Schmitt 1993). Finally, all models include president fixed effects to account for idiosyncrasies among executives (Fordham 2002; Koch and Sullivan 2010).

Estimation

We are modeling ordinal dependent variables, and our unit of analysis (military operations) is nested within higher levels of aggregation (campaigns and wars). The appropriate estimator, then, is an ordinal probit regression in a hierarchical multi-level model accounting for structural dependencies among operations that are part of the same "parent" intervention. For instance, operations conducted within the Iraq surge are liable to feature ground troops relative to operations conducted within a leader decapitation campaign in an inactive warzone. By holding these strategic configurations constant, we can assess whether civilian electoral incentives impact the means of force independently. To ensure robustness, for each dependent variable we report a basic ordinal probit model, a model adding parent-intervention fixed effects, and a hierarchical model capturing observation interdependencies.

Results

All results are reported in Table 1. We find robust support for our hypothesis that presidential approval is associated with high-tech approaches. Despite a hefty battery of theoretical and structural controls, we interpret evidence that electoral considerations compel civilian leaders to vie for higher risk-aversion and control in military operations. This might coincide with military preferences assuming high-tech structures are most appropriate for the mission. It might, however, diverge from military advice, indicating dysfunctions on the civilian side of the CMR balance. If political leaders replace an ethos of good, strategic governance over long time horizons for selfish aims of short-term political preservation, this presents new questions for CMR norms. This is increasingly likely in the American political climate of politicization and polarization. A retired four-star general commented that civilian leaders increasingly exploit societal divisions for political gain, sharing more in common with commercial media and international adversaries than with military elites (Schmidt 2022). While we do not measure the effects of a civilian bias toward high-tech approaches when electorally vulnerable, we urge considerations of its implications.

[Table 1 about here]

We also find fairly robust support that multilateral operations correlate with lower-tech approaches. This matches our expectations for this control since sharing costs and risks across partners should ease civilian leaders from avoiding and controlling against them. We observe no evidence that the presence of a major nonstate actor systematically affects the means of force. We are keen to examine how political and military elites perceive violent non-state actors at the strategic and operational levels more closely. Interestingly, cumulative US

⁴These findings are robust across a range of alternate modeling specifications. Additional models were run using presidential approval (as opposed to disapproval), an ordinal measure of Rugged terrain, and a count of US allies as opposed to a binary indicator of multilateralism.

casualties strongly predicts lower-tech force structures in all models. This might be artifact of force replacement. As attrition occurs where troop concentration is dense, replacements are sent and expected to continue participation in troop-centric operations. Although we note limited evidence that high-tech approaches are applied in the presence of rugged terrain, we do not find this to be the case in urban settings, contrary to our expectations. Like the finding for nonstate actors, we identify this as a future research avenue of high value and potential. The remaining controls function benignly and mostly as expected. Overall, we find strong support that independent of several competing explanations, electoral constraints promote higher-tech configurations in military operations, a stark result for CMR scholars to consider.

Discussion

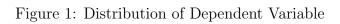
Table 1: Model Results

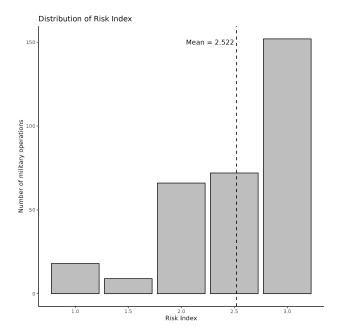
	DV1: Ranked Bundle			DV2: Riskiest Option			DV3: Weighted Index		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Disapproval	-0.030***	-0.035***	-0.042**	-0.044***	-0.049***	-0.068***	-0.023***	-0.024**	-0.034**
	(<0.001)	(0.001)	(0.014)	(<0.001)	(0.004)	(0.005)	(0.006)	(0.022)	(0.036)
Multilateral	0.476***	$0.302^{'}$	0.549^{*}	0.907***	0.815***	1.562***	0.489***	0.332^{*}	0.541*
	(0.005)	(0.113)	(0.090)	(<0.001)	(0.001)	(<0.001)	(0.003)	(0.071)	(0.084)
Non-state	-0.096	-0.096	-0.085	-0.185	0.175	0.027	-0.213	-0.187	-0.231
	(0.629)	(0.690)	(0.836)	(0.475)	(0.609)	(0.963)	(0.252)	(0.402)	(0.552)
US Casualities	0.013***	0.010***	0.018***	0.015***	0.013**	0.024**	0.011***	0.010***	0.017***
	(<0.001)	(0.009)	(0.008)	(0.002)	(0.029)	(0.027)	(<0.001)	(0.008)	(0.006)
Urban	0.004	0.007	0.118	0.134	0.125	0.406	-0.0008	-0.061	0.103
	(0.982)	(0.975)	(0.738)	(0.578)	(0.658)	(0.395)	(0.996)	(0.763)	(0.765)
Rugged	-0.380*	-0.295	-0.470	-0.559**	-0.505	-0.876	-0.236	-0.282	-0.359
	(0.091)	(0.361)	(0.402)	(0.042)	(0.224)	(0.169)	(0.276)	(0.370)	(0.451)
Oil Exporter	0.027	0.229	0.541	-0.106	0.300	0.457	-0.047	0.230	0.389
	(0.908)	(0.711)	(0.508)	(0.699)	(0.663)	(0.572)	(0.835)	(0.687)	(0.610)
DC Distance	-1.220**	-0.651	-2.983	-1.210*	-1.071	-3.697	-0.771**	-0.387	-1.462*
	(0.037)	(0.449)	(0.595)	(0.070)	(0.491)	(0.147)	(0.035)	(0.471)	(0.071)
Base Distance	-0.006	-0.062	-0.010	-0.126	-0.184	-0.185	-0.025	-0.052	-0.040
	(0.929)	(0.436)	(0.945)	(0.156)	(0.147)	(0.356)	(0.672)	(0.480)	(0.763)
Days into Parent	0.129**	0.292***	0.299*	0.144**	0.147	0.159	0.067	0.143	0.212
	(0.034)	(0.003)	(0.052)	(0.047)	(0.318)	(0.410)	(0.251)	(0.118)	(0.126)
Num.Obs.	247	247	247	247	247	247	250	250	250
Specification	-	Parent FE	Multilevel	-	Parent FE	Multilevel	-	Parent FE	Multilevel
AIC	626.6	591.4	611.2	294.4	274.7	281.8	604.6	579.5	586.8
BIC	693.3	724.8	681.4	347.0	394.0	338.0	668.0	709.8	653.7
RMSE	5.68	5.68	5.35	2.42	2.42	1.98	4.07	4.07	3.76

* p < 0.1, ** p < 0.05, *** p < 0.01 **Note:** All models include president fixed effects.

Table 2: Covariate Summary Statistics

	Unique (#)	Missing (%)	Mean	SD	Min	Median	Max
Risk (numeric)	7	9	2.52	0.57	1.00	2.50	3.00
Disapproval (1m lag)	122	6	44.46	14.97	8.67	47.40	69.25
US casualties (1m lag)	58	6	29.21	35.15	0.00	13.50	130.00
Oil exporter	3	9	0.50	0.50	0.00	1.00	1.00
Distance from DC	31	16	9.22	0.23	7.37	9.21	9.44
Disance from US base	191	16	4.48	1.40	0.00	4.60	7.48





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