What Should We Bomb?

Axiological Targeting and the Abiding Limits of Airpower Theory

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"Airpower is an unusually seductive form of military strength because, like modern courtship, it appears to offer gratification without commitment."
(Eliot A Cohen)

In the 100 years since the advent of airpower and its subsequent use in warfare, airmen and strategists still debate the appropriate targets for aerial bombing that will ensure victory. Early airpower advocates promised quick and decisive victory in modern war by selecting and striking targets critical to an enemy's war efforts. They reasoned that by depriving modern nation-states of their ability to use certain key features of their societies, airpower would prevent the horror of trench warfare witnessed in World War I, thereby limiting overall human suffering.

In the post–Cold War era, Western air forces have fought against states led by dictators, ethno-nationalist tyrants and religious fundamentalists; all had little industrial might to sustain open hostilities for a long period of time. Nonetheless, victory came at a substantially lower cost to civilians than was the case during the air campaigns of World War II. The promise of the early airpower advocates seems to have been realized. Although the civilian casualties and significant hardship caused by recent conflict do not match those incurred during

An F-16 drops a Laser Guided Bomb (LGB)

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World War II, they continue as features of post–Cold War air campaigns.

This article explores a new theory that reopens the debate over airpower's targeting priorities: axiological targeting. Lt Col Peter Wijninga of the Royal Netherlands Air Force and Richard Szafranski first explored this theory in their article *Beyond Utility Targeting: Toward Axiological Air Operations*. The term *axiological*, which combines two Greek words: *axios* (worthy) and *logos* (reason or theory), is the study or theory of values — what they are and where they are placed. Wijninga and Szafranski argue that the Air Force should explore axiological targeting as a way of refining the theory and practice of coercive airpower. For them, "the aim of axiological aerospace operations is to use air, space, and information power to force a behavior shift in belligerent leadership in the quickest and most economical ways possible . . . Value targeting engages the minds and needs of leaders at all levels, knowing that they, and not their war-fighting stuff, are the real source of the conflict and its prolongation and the essential ingredient to its resolution."[1] Axiological target sets might include bank accounts and finances, as well

as entertainment, sports, and recreational facilities, used by the senior leadership. In other words, axiological targeting sees non-military centers of gravity as more strategic and counter-value targets as more important than counterforce targets.

This new theory seeks to coerce adversaries by holding at risk those things they value most. The authors reason that one can reduce the suffering of innocents even further by striking more personal targets. Unlike previous airpower theories, axiological targeting does not focus on elements that an adversary uses to mount a military campaign. Rather, it is more flexible and more notional in its identification of counter-value targets that may be centers of gravity.

However, this approach is fraught with dangerous assumptions that may put civilians and armed forces at greater risk. In fact, axiological targeting represents the limits of airpower in practice and the complicated logic of airpower as theory. Now that the context of warfare has shifted away from trench fighting of the early twentieth century, one must evaluate how axiological targeting may be applied against today's adversaries on today's battlefields. This article explores the risks of this new theory and demonstrates how it represents the overall limits of airpower in confronting opponents during the early twenty-first century.

What is axiological targeting?

Axiological targeting is part of the school of coercive-airpower thought that believes airpower is uniquely suited to force an adversary to accept the demands of the attacker. It accepts the challenge issued by Robert Pape, who maintains that coercive airpower has significant drawbacks: "The key problem with coercion is the validity of the mechanisms that are supposed to translate particular military effects into political outcomes."[2] Coercion involves the destruction of certain targets but does not require complete annihilation of the adversary or of his necessary means of resistance. As such, axiological targeting becomes a logical extension of the airpower theories of the interwar period. By identifying the correct target set within a center of gravity, airmen can use that set as a lever to modify an enemy's behavior and attitude.

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One can easily recognize a campaign of coercion by examining the rhetoric employed by the political leaders of an attacking state — bombing campaigns are designed to 'send a message to the leadership' or 'ratchet up the pressure' in hopes the adversary will acquiesce to the attacker's demands. The modern airpower of many Western militaries is uniquely suited for a strategy of coercion since adversaries can do little to inflict substantial casualties against air forces that can evade their air defense networks.

The United States Air Force, in particular, can deploy rapidly and bring to bear tremendous and persistent firepower: "The USAF offers a highly versatile coercive instrument. air power can attack strategic, operational and tactical targets. It can re-supply friendly forces and provide essential intelligence. One, some, or all of these functions may play a role in successful coercion."[3] In addition, airpower represents a large part of political calculations that include the quick resolution of a conflict on American terms. One of the advantages the Air Force has over other services is its ability to halt ground invasions or limit aggressions before they become a *faits accomplis*.[4]

Although the Air Force is a potent fighting machine, the challenge of axiological targeting (as with all airpower theory) lies in acquiring the necessary intelligence to glean some insight into the mind of the adversary. How does he meet his particular idiosyncratic needs? What does he value most, and what level of military pressure would make him capitulate? As such, axiological targeting stands in contradistinction to the current theory and practice of utility targeting.

Utility targeting is designed to strike at the means of waging war. Troops, airfields, bases, ships, trains, tanks, aircraft, and command and control (C2) facilities exemplify targets that have a direct use in military campaigns — what Wijninga and Szafranski call "war-fighting stuff". For them, John Warden's five-ring theory is the epitome of utility targeting. According to Warden, one can treat the enemy as a system comprised of five concentric rings (from the inside out): leadership, organic or system essentials, infrastructure, population, and fielded forces. One can target these elements with airpower, either to create a malfunction in the system or induce paralysis, thereby bringing about surrender. Wijninga and Szafranski believe that axiological targeting further refines the center ring of Warden's theory by identifying objects that enemy leaders use to sustain themselves by fulfilling their basic needs.[5]

If Warden's five-ring approach is the epitome of utility targeting in theory, then the epitome of such targeting in practice is the air campaigns of the first and second Gulf wars. Leadership targets were of primary interest to air-campaign planners because by 'decapitating' the Iraqi regime, the coalition could prevent Saddam Hussein's military from mounting an effective resistance. In effect, coalition forces paralyzed the regime by targeting enemy leaders, communication systems, and infrastructure in major cities. During Operation IRAQI FREEDOM, the press referred to targeting by using the terms 'shock and awe', which suggested that by conducting precise and simultaneous attacks on utility targets at the initiation of hostilities, the coalition hoped to create so much fear and disarray that the enemy would have little choice other than capitulation.[6] At first glance, hitting Saddam's palaces may seem in line with axiological targeting. However, we considered them utility targets due to the possibility that they contained labs for the production of weapons of mass destruction and/or that they served as fortified bunkers to protect senior Ba'ath Party leaders.

In contrast, the most persuasive case favoring the effectiveness of axiological targeting may be the North Atlantic Treaty Organization's (NATO) air campaign against Yugoslavia in 1999. The goals were purely coercive: "to demonstrate the seriousness of NATO's purpose so that Serbian leaders understand the imperative of reversing course, to deter an even bloodier offensive against innocent civilians in Kosovo, and, if necessary, to seriously damage the Serb military capacity to harm the people of Kosovo."[7] Early on, political leaders selected airpower as the military instrument, excluding any use of NATO ground troops. Debates over centers of gravity and targets soon emerged within the US military and among NATO allies. Although conventional

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utility targets — fielded forces in Kosovo and C2 nodes — were struck, American air commanders argued for more strategic attacks to break Yugoslav leader Slobodan-Milosevic's will. Days of air strikes continued, but the Serbian offensive against the Kosovars intensified, and the humanitarian catastrophe worsened. After much debate and political maneuvering, targets shifted to include institutions that Milosevic used to maintain his rule. As asserted by the Air Force's Lt Gen Michael Short, NATO's joint force air and space component commander, the threat of destroying everything that kept the Serb leadership in power and comfort did the job.[8] Shortly thereafter, Milosevic capitulated to NATO demands.

Axiological targeting has a seductive quality about it — ground forces avoid the harshness of direct conflict, and standoff attacks focus on leadership rather than on civilians. With the advent of greater precision in munitions, targeting has become more accurate, thereby reducing suffering and hardship on both sides of the conflict. However, like the airpower theories before it, axiological targeting is not without its dangers. In fact, these liabilities reveal the genuine limits of airpower in modern conflict.

Influencing behavior through bombardment

Much of airpower theory and practice is designed to influence behavior of the adversary. Early airpower theorists concentrated on 'civilian morale' believing that a population undergoing sustained bombardment would rise against its government and demand an end to hostilities. At the very least, citizens would be afraid to go to their jobs, thus crippling the target state's economy. Modern airpower thought during and after the first Persian Gulf War focused on paralyzing the leadership or shocking it so completely that it had no choice other than surrender. In this context, morale would mean very little if the adversary were simply incapable of organizing himself to resist.

Axiological targeting represents a return to the belief that airpower can influence behavior. Yet, throughout the history of airpower's use in warfare, human behavior has remained difficult to predict. In many cases, bombing elicited the opposite of the desired response — instead of inciting rebellion, it strengthened enemy resolve; instead of crippling an economy, it led to the streamlining of industry. The case of Kosovo is not clear-cut in terms of illustrating effective airpower coercion or the overall value of axiological targeting. We simply do not know why Milosevic capitulated, but we do know about many other events that occurred during the bombing. For example, the US Army widened roads in Albania, some NATO allies deployed ground troops to Kosovo's borders, and the Russians actively engaged the Serbs diplomatically. Any of these events — or all of them — together with the bombing campaign could have figured into Milosevic's calculations.

Ball-bearing factories or banks?

Although axiological targeting aims for greater precision and the further reduction of civilian casualties, issues of discriminating between combatants and noncombatants remain salient. Although such targeting is designed to inflict more pain on the leadership by striking those things it values, citizens will still suffer. Much like the ball-bearing factories so critical to Nazi Germany's war machine, axiological targets such as banks and sports stadiums are staffed by civilians. Clearly, the targeting of a Serb television station in Belgrade during Operation ALLIED FORCE compelled war fighters to face concerns about the cost to civilians.

Axiological targeting also fails to heed Pape's advice to study more carefully how state policy can depend upon a single leader. Dictators have proved adept at presenting those things they value as popular symbols of their rule as well as co-opting national treasures as part of their government. If air planners using axiological targeting determine that an ancient bridge is the dictator's most valued item, they cannot dismiss the possibility that the citizenry feels the same way about it. Moreover, knowing that it probably will be bombed, citizens by the hundreds might voluntarily stand on the bridge, hoping to prevent its destruction. Under these circumstances, bombing the bridge would likely fail to conform to the law of armed conflict (LOAC), thereby limiting the flexible application of force that axiological targeting presupposes.

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Conversely, if the attacker values something within the target country, such as an ancient temple or museum that contains items of cultural significance, the adversary can position high-value targets and resources nearby in an effort to thwart a bombing campaign. Aerial bombing, no matter the theory, will always be subject to political considerations, moral questioning, and the LOAC. These constraints and strictures do not disappear upon the adoption of axiological targeting and will continue to force airmen into difficult decisions about defining the effectiveness of airpower operations.

Effectiveness of axiological targeting

Not an entirely new theory of airpower, axiological targeting instead demonstrates the same shortcomings that have accompanied airpower thought since its inception. Such targeting theory does not solve the puzzle of human behavior, political questions, and moral quandaries. In fact, the most recent example of axiological targeting used by terror groups points to the theory's major drawback.

The attacks by al-Qaeda against the United States on September 11, 2001, prove instructive when one examines the central thesis of axiological targeting. The strikes against the World Trade Center, whose towers symbolized American power and prestige, were a potent example of axiological targeting, but they did not elicit the desired response from the United States. Why, then, should we think that an

adversary would act differently if it were subjected to a US axiological-targeting campaign?

The underlying assumptions of axiological targeting continue to be plagued by problems of 'mirror imaging' — the notion that Western air forces will confront adversaries who rationally conduct a cost-benefit analysis of their actions. This fallacy further assumes that all enemy leaders value certain things subject to targeting from the air. They may in fact believe it more prestigious to stand up to a bombing campaign conducted by a powerful Western air force. Perhaps the greatest problem of mirror imaging, however, is the belief that Western air forces will inevitably face state actors in the future

Globalization and non-state actors

Threats beyond those presented by nation-states demonstrate a growing need to understand the role of airpower as an instrument of national power. Axiological targeting still struggles with significant drawbacks when applied to non-state actors who operate in an increasingly globalizing world. Any new theory of targeting must take into account these actors and the context in which they operate.

Globalization, as described by Malcolm Waters, is a "social process in which the constraints of geography on social and cultural arrangements recede and in which people become increasingly aware that they are receding".[9] This global social process has dispersed information and technology to greater reaches of the planet and, as a result, has empowered various types of human social organizations with the authority to declare war. These groups, such as ethno-nationalist zealots, clan-based warlords, terrorist organizations, and even criminal syndicates, now have both the means and the willingness to follow through and wage war, often justifying and employing violence in ways that challenge contemporary understanding of air operations.

Globalization also provides new sources of funding for such groups, permitting them to become more self-sufficient than they were during the Cold War, when the superpowers provided them support. They now take advantage of the transnational nature of globalization by funding their activities through the international trafficking of narcotics, people, small arms, and illegally seized natural resources such as diamonds. Unlike nation-states, these groups do not rely on a national industry, so identifying proper targets for airpower continues to present problems for axiological targeting.

Striking against drug crops or diamond mines valued by a particular non-state leader still raises issues of behavior modification, morality, and effectiveness when axiological targeting is applied to nation-states. A rebel leader may see his stature elevated merely because the United States or some European country orders an air strike against him. One must also address the problem of discriminating between combatants and noncombatants. Do people who earn a living from drug crops represent legitimate targets? What about those forced to work in diamond mines? Also, regardless of whether one uses utility targeting or axiological targeting in a military campaign against non-state actors, the LOAC may serve as a hindrance to air-campaign planners and to overall military effectiveness against these types of actors. It is worth exploring whether a conventional counterforce approach would prove more effective.

Evolution of airpower thought

Far from fulfilling the promises of early airpower advocates, axiological targeting serves to sustain the conversation about the effectiveness of airpower. If globalization continues to define the context in which challenges to national and international security arise, one would do well to discuss how airpower should be coordinated among various nations and alliances rather than debate what targets to strike from the air. In fact, NATO's campaign against the Serbs in Kosovo does not illustrate the effectiveness of axiological targeting so much as it demonstrates the need to think of ways to use airpower more effectively in concert with indigenous forces on the ground, such as the Kosovo Liberation Army. After Kosovo, the US airpower operation in Afghanistan also worked closely with another indigenous force on the ground — the Northern Alliance.

USAF B-2 Stealth bomber

Axiological targeting remains true to the spirit of early airpower advocates by demonstrating that airpower's use in war continues to be more art than science

Since the end of the Cold War, the United States has used airpower in conjunction with various coalitions and alliances, bringing it to bear against an array of adversaries, from dictators to a radical religious regime. The coordination of these coalitions and the campaigns against these adversaries may foreshadow the challenges presented to us at the beginning of this new millennium. Clearly, further study of how we organize coalitions and how nonstate actors operate would benefit airpower thinkers and leaders. Undoubtedly, however, issues related to morality, effectiveness, and the unpredictability of human behavior will continue to intertwine with future airpower campaigns no matter who participates or against whom we direct them. These basic issues have accompanied advocates of airpower since its advent and application in warfare.

Rather than serving as a point of departure for airpower, axiological targeting asks us to think more creatively about how to meet violent challenges of the near future. The engendering of more discussion on one of the most lethal instruments of power in the world can only help. Thus, axiological targeting remains true to the spirit of early airpower advocates by demonstrating that airpower's use in war continues to be more art than science.

Notes

[1] Lt Col Peter W. W. Wijninga and Richard Szafranski, Beyond Utility Targeting: Toward Axiological Air Operations, Aerospace Power Journal 14, no. 4 (Winter 2000): 53, 56, http://www.airpower.maxwell.af.mil/airchronicles/apj/apj00/win00/szafranski.pdf.

[2] Robert A. Pape, Bombing to Win: air power and Coercion in War (Ithaca, NY: Cornell University Press, 1996), 329.

[3] Ibid., 5.

[4] Daniel L. Byman, Matthew C. Waxman, and Eric Larson, air power as a Coercive Instrument (Santa Monica, CA: RAND, 1999), 3.

[5] Wijninga and Szafranski, Beyond Utility Targeting, 48.

[6] Recent reporting, however, tends to downplay the significance of shock and awe. T Michael Moseley reveals that less than 10 percent of coalition bombs targeted Iraqi leadership or military command structures. The majority of air attacks went against fielded forces. See Operation Iraqi Freedom: By the Numbers (Shaw AFB, SC: Combined Forces Air Component, Assessment and Analysis Division, 2003).

[7] Ivo H. Daalder and Michael E. O'Hanlon, Winning Ugly: NATO's War to Save Kosovo (Washington, DC: Brookings Institution Press, 2000), 101.

[8] John A. Tirpak, Short's View of the Air Campaign, Air Force Magazine 82, no. 9 (September 1999), http://www.afa.org/magazine/sept1999/0999watch.asp.

[9] Malcolm Waters, Globalization (London: Routledge, 1995), 3.