Psychology as a Warfighting Domain

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Abstract

Using psychology to gain advantage over an enemy is as old as warfare itself. Psychological warfare predates its modern moniker, and military leaders have sought to understand their enemies and influence their behavior since military leaders emerged. In this paper, the authors discuss the history of psychology as a warfighting domain, using examples from myth and antiquity as well as select periods in which the United States or other countries used psychology to engage in conflict. An exploration of Russia's use of influence and its effect on the US highlight what conflict in the information environment looks like. The authors then briefly discuss the current state of information warfare and provide thoughts on what this will look like moving forward in an interconnected world.

Keywords: psychological operations, influence operations, information warfare, psychology, information operations, sixth domain, psychological domain

La psicología como dominio de guerra

Resumen

Usar la psicología para obtener ventaja sobre un enemigo es tan antiguo como la guerra misma. La guerra psicológica es anterior a su apodo moderno, y los líderes militares han tratado de comprender a sus enemigos e influir en su comportamiento desde que surgieron los líderes militares. En este artículo, los autores discutirán la historia de la psicología como un dominio de guerra usando ejemplos del mito y la antigüedad, así como períodos seleccionados en los que los Estados Unidos u otros países utilizaron la psicología para entrar en conflicto. Una exploración del uso de la influencia de Rusia y su efecto en los Estados Unidos resaltará cómo se ve el conflicto en el entorno de la información. Luego, los autores discutirán brevemente el estado actual de la guerra de información y ofrecerán ideas sobre cómo se verá avanzar en un mundo interconectado.

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Palabras clave: operaciones psicológicas, operaciones de influencia, guerra de información, psicología, operaciones de información, sexto dominio, dominio psicológico

心理学作为一个战争领域

摘要

运用心理学来获得优势对抗敌人，这从战争起便存在。心理战的起源早于这一现代称呼，并且军事领导人从一开始便试图理解敌人，并影响后者的行为。本文中，作者使用传闻和古代事件实例，将心理学作为一个战争领域的历史进行探讨，并选择特定时间阶段，其间美国或其他国家使用过心理学参与战争。就俄罗斯使用影响力及其对美国造成的影响进行探究，将强调信息环境下的战争是什么。作者随后将简要探讨当前的信息战状态，并就信息战未来在互联世界中如何发展提供见解。

关键词：心理操作，影响力操作，信息战，心理学，信息操作，第六领域，心理领域

Introduction

While there are many Sun Tzu quotes touting the importance of psychology in war, one quote highlights the benefits of using psychology prior to and during war: "One need not destroy one's enemy. One need only destroy his willingness to engage" (Nylan 2020). Destroying the enemy's willingness to engage can take several forms: from causing the enemy to defect to convincing them to avoid engaging in the first place. In order to convince the enemy to avoid or cease engagement, one needs to understand how the enemy thinks: their motivations, background, fears, and culture.

The purpose of this paper is to provide an overview of how psychology has always been part of large-scale conflict using examples throughout history. By providing these examples, the authors intend to emphasize the importance of a focused effort of utilizing psychology as a warfighting domain moving forward.

In order to examine the role of psychology as a warfighting domain, the authors define the terminology used throughout this paper. The authors then discuss examples of psychological warfare from ancient history and mythology. Then the authors then explore case studies chronologically

from different time periods during which the United States, US allies, and US adversaries have all used psychology—whether in the form of trickery and deceit to support other operations, messaging, or otherwise influencing how or what people think—to gain an advantage. After this broad overview of psychological warfare throughout time, the authors describe their opinions on the current state of influence operations and suggest a way forward.

To understand psychological warfare, one first must understand the terminology used to describe the various ways that militaries have used and continue to use psychology in war. According to the Department of Defense (DOD), psychological operations (PSYOP) "convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals" (DOD 2010). In recent years, the US Army rebranded PSYOP as Military Information Support Operations, or MISO—and then rebranded MISO back as PSYOP. Perhaps the easiest way to understand this shift is that MISO is what PSYOP does. MISO describes a broader range of operations, particularly when referring to operations involving the State Department (Myers 2017). Audiences consider MISO a less antagonistic term than PSYOP. The authors refer to PSYOP when discussing historic operations to keep consistency with the source material, but use MISO when the source material does as well. Military deception (MILDEC)

is another way one uses knowledge of the adversary's thinking to achieve effects. MILDEC is used to "deter hostile actions, increase the success of friendly defensive actions, or to improve the success of any potential friendly offensive action" (DOD 2012). PSYOP/ MISO and MILDEC (along with operations security, or OPSEC) fall under the general umbrella of Information Operations (IO). IO is defined in joint doctrine as the "integrated employment, during military operations, of information related capabilities in concert with other lines of operation to influence, disrupt, corrupt, or usurp the decision making of adversaries and potential adversaries while protecting our own" (DOD 2012). IO incorporates the ways to use the physical and information domains to influence the cognitive domain, which influences the physical and information domains in return.

Throwing Cats: Historical and Mythological Examples

Psychological warfare is not new to human conflict. Throughout history, people have used deception, disinformation, and influence over the decision-making of adversaries in warfare. Genghis Khan used techniques designed to inspire fear, the Egyptians had their cultural and religious beliefs used against them, and the myth of the Trojan Horse shows how powerful the idea of deception has been throughout human history. These three examples demonstrate how psychological warfare was used before "psychology" was a defined construct.

Genghis Khan is known as the man who conquered more land than anyone else in history. Part of his overwhelming success can be attributed to his ability to utilize psychological tactics in order to gain advantage over his adversaries. When Genghis Khan set his sights on a new territory, he offered sovereign leaders the opportunity to surrender and to meet all of his demands for tributes. If the other territory refused to give in, the Mongol armies slaughtered the majority of the population and only left behind a few storytellers, with the intent of having them tell this tale of terror to neighboring regions (Al-Khatib 2015). The message sent by these actions was for sovereign leaders to comply or face a horrific fate. This served to build up Genghis Khan's reputation, likely leading to him being able to conquer more territory without bloodshed than he otherwise would have been able to conquer. Without his ability to understand and manipulate the human psyche, Genghis Khan would have had to spend more time and resources in battle, rather than having leaders surrender without a fight.

Psychological warfare practitioners understand the importance of a target audience analysis, which is a study of a specific population that practitioners conduct in order to determine the best way to change a behavior. Cambyses II, leader of the Persian Army in the battle of Pelusium, 525 BCE, demonstrated the idea of understanding culture in order to evoke a specific response. The ancient Egyptians considered cats to be sacred, and even worshipped a goddess with the head of a cat: Bastet. The Egyptians viewed cats as Bastet's representation, and it was against the law for citizens to kill cats. Cambyses II had his soldiers capture as many cats as possible, and his troops gathered to try to take the city of Pelusium. Once the Egyptians attacked, the Persian Army released cats onto the battlefield. However, the confusion this induced was not enough for Cambyses II, who ordered the Persian soldiers to advance while they held cats or had them tied to their shields. The Egyptians, already confused and concerned because of the cats running everywhere, were afraid to shoot arrows at the enemy for fear of killing the cats and angering Bastet. The Persian army hurled cats over the wall of the city, inducing panic and confusion in the civilian population as well. Lastly, upon taking the city, Cambyses II kept a cage of cats and threw them in the faces of his enemies, showing his contempt and hatred for his enemies (Rouse n.d.). While Cambyses II may have won this battle even without this exploitation of Egyptian beliefs, his knowledge of Egyptian culture and religion certainly helped enable his victory in the battle of Pelusium. This highlights how understanding a population's culture and motivations can lead to success on the battlefield.

MILDEC is another method that militaries use that involves understanding the minds of the adversary. One example of this in antiquity is the tale of the Trojan Horse. While the tale of the Trojan Horse is likely more myth than reality, it is a classic example of using deception in warfare. This tale, described in Homer's *Iliad*, involves a frustrated

Odysseus seeking a way to get past the impenetrable walls of Troy. Supposedly inspired by the Greek goddess, Athena, Odysseus ordered a ruse in which all of the Greek army would appear to sail away and leave the gift of a large wooden horse for the city of Troy. The Greek army left one soldier, Sinon, behind to tell the Trojans how the Greeks had given up and left, with the horse as a gift. In reality, the Greeks hid their forces off the coast of a nearby island, with a small contingent of fighters left hidden inside the horse. The soldiers waited for the Trojans to enjoy a drunken celebration of their victory before they emerged from the horse to attack Troy from within (Cartwright 2018). This classic tale of deceit shows the importance of knowing the adversary's worldviews, their susceptibility to deception, and using multiple indicators to create a believable story. In this case, the Trojans' ego and hope for an end to the fighting perhaps allowed them to overlook the obvious strangeness of a large wooden horse left outside their gates. Because the army appeared to retreat, leaving one of their own behind to explain, the Trojans were more susceptible to believe what they wanted to believe—a psychological phenomenon now called confirmation bias.

These examples of evoking fear, understanding a target audience, and MILDEC demonstrate the use of psychological warfare in ancient times. While stories and myths from antiquity provide an entertaining glimpse of psychology as a warfighting domain, the rest of this article focuses on modern military and political efforts. Various time periods of conflict are discussed, using examples of different types of influence in order to highlight the importance of understanding and using human psychology to achieve effects in conflict.

"I Want You!" Posters and Propaganda during World War I

The world began to understand the utility of the psychological domain during World War I (WWI). One reason WWI is significant to the consideration of the psychological domain is its unique positioning in human history. This was the first time when the majority of nations involved in a conflict had well-educated, wealthy, and urbanized populations. Warfare was beginning to evolve and look different. There was another war behind the scenes of mechanized and trench warfare that characterized many of the battles. In this other war, governments fought to shape the opinions of the masses and to shape the ideas surrounding the war effort (Kaminski 2014). The US government began to understand the importance of propaganda—the spreading of ideas, information, or rumors for the purpose of helping or injuring an institution, a cause, or a person (*Merriam-Webster*, s.v. "propaganda," accessed January 18, 2020, https://www.merriam-webster.com/dictionary/propaganda)—propaganda, or the use of information (both true and false) to bolster the war effort. The goals of propaganda were simple; increase support for the war effort, boost military conscription, and lead

a war-making economy in the home front. Posters were the most widely used form of propaganda. The economies of the global powers facilitated mass production of propaganda efforts and allowed propagandists to develop advanced means of persuasion through an understanding of the human psyche.

Psychological theories, although not formally postulated at the time, allowed propagandists to use emotionally based methods that capitalized on patriotism, nationalism, and fear motivators (Chambers 1983). Social identity theory refers to the way in which a person's sense of who they are is based on group membership. Tajfel (1970) proposes that the groups to which people belong are an important source of pride and self-esteem and lead to dividing the world into "us" and "them" through social categorization. Terror management theory refers to the way that people respond to an awareness and fear of death (Greenberg, Pyszczynski, and Solomon 1986). This fear drives people to attempt to confirm their own sense of importance in the world and insulate themselves as a protective measure. These theories were used in propaganda efforts in the United States to influence the American public.

The United States distributed artistic propaganda predominantly using newspapers, leaflets, film, radio broadcasts, and large, colorful posters (Reed 2014). Much of the propaganda sought to increase support for the war effort by instilling American pride, increasing the "us" versus "them" divide, and by playing on people's fears. The messages contained within these mediums reached saturation in their target populations who internalized the messages as culturally definable and identifiable attributes. The messages were rooted in some kernel of information or cultural ideals upon which the larger message was built (Kaminski 2014). The US populace internalized the messages contained in the propaganda, which led to the messages becoming self-replicating – the more people were exposed to these ideas, the more they shared them person-to-person.

These messages were so internalized that they are still a part of American history and culture today. One of the most iconic pieces of Americana came from WWI propaganda. The ubiquitous Uncle Sam "I want YOU for the US Army" poster was, and still is, a compelling image to support one's nation. This demonstrates the principles of social identity theory by increasing people's ties to their group. Other posters encouraged those who could not join the military to support the war effort through work, savings, bonds, and even farming initiatives. In contrast to the general themes seen in US propaganda, German posters often conveyed an idea of national survival against an impending doom (Kaminski 2014). This demonstrates the use of terror management theory.

Another use of social identity theory involved emphasizing the division between US and adversarial populations. While much of the propaganda tended to appeal to traditional ideals of masculine and feminine protectorship roles, propaganda campaigns carried polarizing racial underpinnings (Olund

2017). Exaggerated ethnic features and portrayals of the "Hun" as large gorillas assisted observers in distancing themselves from the "other." Such imagery worked to create artificial psychopathy in the mind of the observer, allowing US troops to visualize the enemy as subhuman and therefore easier to attack. The use of this psychological tactic would grow darker in the coming decades.

US propaganda efforts toward its own citizens were very successful during WWI, both at home and abroad. The messages were so successful that, once World War II (WWII) began in earnest, the United States rebranded much of the material from WWI with images of new leadership (Kaminski 2014). The US use of propaganda to garner support from its own citizens while dehumanizing the enemy demonstrated how influence campaigns on the home front could support more traditional warfare.

Hitler in a Tutu: Weaponized Disinformation in World War II

During WWII, psychology served as a warfighting domain in several ways. While the US continued its influence campaigns at home, there was also a targeted use of psychological warfare against the adversary. Messaging in the form of leaflets, broadcasts, and other means served to lower the morale of enemy troops and increase their fear and confusion. Messaging took the form of white, gray, and black propaganda. White propaganda did not hide its source, gray propaganda obscured its source, and black propaganda appeared to come from another source, specifically from the person or group it was designed to discredit. In addition to lowering morale, messaging served to discredit the opposition and encouraged people to lose faith in the Axis powers. Disinformation campaigns bolstered MILDEC efforts with supporting actions, false armies, and false equipment. While both sides sought to dishearten, mislead, and weaken the other, the following examples focus on the efforts of US and Allied forces.

The US continued the tactics used in WWI to garner support among the US public. In order to do so, the United States created the Office of War Information (OWI) about half a year into its involvement in WWII. The purpose of the OWI was to produce white propaganda—messages from the US government targeting people at home and abroad with print, radio, film, and posters (Prosser and Friedman 2008). These posters encouraged Americans to refrain from sharing sensitive military information. Additionally, they encouraged Americans to do things such as walking instead of driving in order to help the war effort. The OWI created products that were innocuous in nature, but the US had another office to transmit black propaganda targeting the adversary—the Office of Strategic Services, or OSS.

The OSS's propaganda was one method the Allies used to try to lower enemy morale. They targeted this propaganda toward the enemy, masking the attribution of the messages. For example, Operation Cornflakes dropped mailbags full of fake newspapers into

Germany. These papers, appearing to be from Nazi resisters, worked to discredit Hitler. The OSS also used radio broadcasts that appeared to come from within Germany in order to convince the enemy that they had more resistance within the country than they expected (Little 2016). One branch, the Morale Operations (MO) branch, headed up most of the undercover propaganda campaigns with the intent of inducing fear, confusion, and distrust among the enemy. The MO and their British equivalent, the Political Warfare Executive, distributed rumors by word of mouth, radio broadcasts, and leaflets. Some of these rumors stated, "high-level Nazi leaders had been captured or had surrendered to the Allies" (Central Intelligence Agency [CIA] 2010). They also sent anonymous letters, called "poison-pen letters," to the families of German soldiers. These letters consisted of both death notices and letters describing how the soldiers died due to shoddy doctors. The letters intended to cause families to hate their own side, believing them incompetent.

Another method to erode support for the adversary involved the use of doctored photos. Back before Photoshopped images online called into question whether something was "fake news," the OSS suggested distributing postcards of Hitler that would make him an object of ridicule. The OSS proposed ideas like Hitler dressed as a male ballet dancer, Hitler dancing with children, and Hitler dancing with an obese woman (Friedman 2003). The purposes behind ridiculing the enemy are to raise morale back home, strip the enemy of

mystique/prestige, erode the enemy's claim to justice, and reduce the idea of the enemy as invincible; depending on the culture, ridicule can be seen as a fate worse than death (Waller 2006). The OSS sought to undermine Hitler's efforts by weakening his support among the population.

In addition to spreading fear, confusion, and distrust, the Allied forces also engaged in MILDEC activities such as Operation Mincemeat. Operation Mincemeat is one of the well-known MILDECs from WWII and it highlighted how one must understand the adversary in order to fool them. When the Allies planned to invade Italy via Sicily, they were concerned that this was too obvious of a plan and that Germany and Italy would be able to anticipate and counter their efforts. In order to create a path of less resistance, the Allies created a disinformation campaign that led to the German forces believing the invasion would come from further east. The Allies accomplished this with a dead "military officer" planted where Axis forces could find the body. On the "officer's" body was false identifying documents and paperwork implicating an Allied invasion occurring at the false location. The Germans and Italians fell for the plan, allowing for a safer invasion of Sicily (Knighton 2017). This plan involved knowing which populations would be sympathetic to the Axis forces, the susceptibility of the enemy to believing the source documents, and a lack of contradicting information. A more suspicious adversary may not have fallen for this clever trick. Much like the use of the Trojan Horse, Opera-

tion Mincemeat used confirmation bias to manipulate the beliefs of the Italians and the Germans to pave the way for a successful invasion.

WWII demonstrated that a concerted propaganda effort could enhance military and political effectiveness. By attacking the enemy's feelings and emotions, it reduced their problem-solving capability, lured them into a false sense of security, increased fear, and lowered morale. Eroding support for adversary leadership led to a more permissive environment within which the Allied forces could operate. Between leaflet bombs, planted evidence, and departments specifically designed for different psychological tactics—OWI for improving morale and shaping behavior at home and OSS for reducing morale and shaping behavior amongst the enemy—WWII demonstrated the power of psychology in war.

Deception, Intrigue, and Math? Soviet Information Operations during the Cold War

The Cold War, much like WWII, was a breeding ground for propaganda, disinformation techniques, and psychological warfare methods used by both sides. President Truman kicked off a national "Campaign of Truth" in order to counteract Soviet propaganda. The goal of this campaign was to counter disinformation through "honest information about freedom and democracy" (Wolfe 2018). While the United States committed to truth as a method of psychological warfare (in addition to an increased focus

on psychological warfare), the Soviet Union used other methods in order to try to gain an advantage over the US. Of particular note was their development, refinement, and execution of reflexive control theory (RCT).

Reflexive control is "a means of conveying to a partner or an opponent specially prepared information to incline him to voluntarily make the predetermined decision desired by the initiator of the action" (Kamphuis 2018). RCT stipulates that when two adversaries engage in conflict, the adversary who better understands their opponent's decision-making process and utilizes it against them is more likely to succeed. The increased probability of success follows a recursive algorithm. For example, if opponent A anticipates opponent B's decision-making process, opponent A is more likely to succeed. If opponent B anticipates that opponent A will be taking into account opponent B's decision-making process, opponent B would then have the advantage, and so on and so forth, with the final advantage being heavily influence by which opponent has the most accurate knowledge and is most successful at utilizing this knowledge of the other's decision-making process. The final desired outcome of successful reflexive control is to hijack the adversary's decision-making process so that they *reflexively* take decisions that advantage the RCT enabler.

In order to truly understand RCT, one must first understand its beginnings in *Maskirovka*, a concept within Russian strategic thinking defined as "deliberately misleading the opponent with regard to one's own in-

tentions, causing the opponent to make wrong decisions and thereby playing into one's own hand" (Kamphuis 2018). Essentially, *Maskirovka* is an art of deception and psychological manipulation. Russia applied *Maskirovka* on a large scale and immediately utilized it against the United States following the end of WWII. Russia sought to control the way the United States perceived Soviet nuclear development capabilities and allowed for the beginning of the nuclear arms race (Ziegler 2008). In summary, understanding *Maskirovka* is integral for understanding how Soviet doctrine incorporates deception and an understanding of their adversary's perceptions.

How does *Maskirovka* fit into RCT? While *Maskirovka* on its own is the integrated concept of deception, RCT is more than "controlling the perceptions of adversaries"—it is the process to control their decision-making process. Deception is just one piece of the overall puzzle. RCT was founded by Vladimir Lefebvre, who, in his own words, believed the concept of disinformation in military doctrine "seemed to me too narrow, because the important thing is not so much cheating an enemy as controlling his decision-making, and to conduct reflexive control, we have to start with constructing an enemy's model" (Murphy 2018). Clearly, Lefebvre's formulation of RCT theory required extensive understanding of its intended victims, and the USSR did just that. In 1982, James Phillips, a senior research at the Heritage Foundation, wrote an exposé on the Institute for US and Canadian studies, a Soviet-based

organization that purported to be akin to the typical independent, US, Washington-based think-tank. The true story was much more sinister. Far from being an academic institution dedicated to the furthering of cultural research for the sake of academia, the Institute primarily took direction from the Committee of the Communist Party of the USSR and, more specifically, their International Affairs department. This institute, rife with connections to the Soviet Politburo, Soviet academia, and the GRU, provided an excellent center of information to enable true usage of RCT (Phillips 1982).

Russia further applied RCT in a concrete example at the height of the Cold War. During a military parade and international show of force, the Soviets went out of their way to place deliberate indicators among the show for Western military attachés and other intelligence collecting assets to observe. In particular, the Soviets manufactured multiple fake, larger intercontinental ballistic missiles (ICBMs) that appeared to support longer than currently believed maximum ranges and the capability of employing multiple warheads per ICBM. Using the tenets of RCT, Soviet planners did this with the understanding that the gathered intelligence would then make its way back to Western decision-makers and lead them to decide upon further intelligence gathering. "Getting into the heads" of said decision-makers, the Soviets had already created multiple collateral intelligence trails which would be picked up in other intelligence avenues and corroborate deliberately intended conclusions

(Thomas 2004). In this case, understanding the psychological characteristics of US decision-makers allowed Russia to compete with the US through psychological manipulation.

The Cold War was a fertile environment for the germination of non-traditional warfare means. Two superpowers were placed head-to-head in a battle for supremacy without the ability to rely on traditional schools of thought for international relations and military strategy. Both sides began to replace air superiority and decisive battles with espionage and proxy war. Beginning with their development of *Maskirovka* in turn of the twentieth century, the Soviet Union was well positioned to develop RCT, a mathematical, cybernetics-based solution to controlling their adversaries' decision-making abilities. This new approach to vying for supremacy, combined with the intense, specific research of the Institute for US and Canadian Studies, allowed for the refinement needed to enable RCT. The Soviet Union could effectively use RCT to hijack the Observe, Orient, Decide, and Act (OODA) loop, created in the fifties and typically used widely by the US military to describe decision-making. By understanding how a target orients and decides, RCT allowed the Soviet Union to predict behavior and insert a counter to create a "reorientation." There is present and significant evidence that the Soviet Union was able to master a new, innovative approach to grey-zone conflict and would have had no reason to abandon such a useful school of thought in recent years. The former Soviet Union has continued to

influence US decision-making through psychological warfare in recent years, which the authors explore further on in this article.

Ghosts and Grievances in the Vietnam War

The Vietnam War was another period of conflict in which the US and other nations sought to amplify their effectiveness through psychological means. One example of this is reminiscent of how the Egyptian's beliefs were used against them. In Vietnam in 1967, there was a widely held Buddhist belief that spirits of the dead uneasily walked the Earth unless their relatives buried them properly. The primarily Buddhist North Vietnamese and the Viet Cong were dying far from home. These beliefs and facts led to the creation of Operation Wandering Soul. This operation was an effort by US soldiers to lower enemy morale and create fear and confusion (Hoyt 2017). The Sixth Psychological Operations Battalion (Sixth PSYOP) paired with the US Navy to broadcast audio consisting of Buddhist funeral music, unearthly sounds, and distressed voices of "ghosts" speaking of how they were now in Hell, wandering the Earth (Shirley 2012). While the United States used audio as a ruse previously in WWII during the "Ghost Army" recordings, the use of audio during the Vietnam War served as a way to take advantage of cultural and religious beliefs that the dead will wander the world looking for their bodies unless properly buried. The US was not solely responsible for this

effort—they relied on the South Vietnamese to be more effective.

The South Vietnamese helped the US transmit the haunting audio. Soldiers and helicopters both carried loudspeakers in order to create the perception that the haunting sounds were coming from multiple locations within the jungle. The audio failed to fool some soldiers but appeared to unsettle other soldiers. Even if enemy soldiers knew the sounds were false, they still reminded them that if they die, their souls could end up wandering the jungles in a similar fashion. Any moments of confusion or fear that the US could gain through Operation Wandering Soul was useful. The Sixth PSYOP even modified the audio to bolster the South Vietnamese rumor of a tiger attacking the North Vietnamese Army and Viet Cong troops. The Sixth PSYOP included tiger growls on the audiotape, and people reported that 150 men fled Nui Ba Den Mountain where the audio with tiger sounds was played (Friedman n.d.). While the US and South Vietnam played on the enemy's belief system to cause fear and confusion, other efforts focused on garnering support. One way they did this was through counterinsurgency efforts.

The South Vietnamese created a counterinsurgency program called Phuong Hoang—named after a mythological bird from Vietnamese and Chinese culture—while US officials in Vietnam called their supporting efforts the Phoenix program (Miller 2017). One influential figure, a South Vietnamese Army officer named Tran Ngoc

Chau, demonstrated how effective efforts to "win hearts and minds" could be. Chau worked to counter insurgents in Kien Hoa. Kien Hoa was a difficult place to work because the government had difficulty identifying insurgents and villages were angry with local officials and police forces, which tended to be corrupt. Chau decided to conduct the Census-Grievance program to interview every adult in Kien Hoa, with the goal of collecting information about the enemy. While he was able to use these methods to track down enemies to have them captured, or killed as a last resort, one of the big wins of the Census-Grievance program was engaging the populace. By doing so, he showed that he listened to their complaints and responses, and then addressed the problems within his control. Chau did not approve of the Phoenix program's heavy use of force and lack of emphasis on mobilizing the population (Miller 2017). Instead, the lesson learned from the Census-Grievance program emphasized that understanding how and why people think led to an increased ability to gain population buy-in.

While the authors have discussed the role of deception and of understanding the populace, other efforts focused on increasing defectors among the Vietcong and the North Vietnamese Army. Operation Roundup on Kien Gieang targeted potential defectors by having defectors photographed and having them write messages on leaflets encouraging their former colleagues to defect and join the cause. Project Roundup also used loudspeaker teams of former Viet Cong soldiers to speak

to their former colleagues to convince them to defect. According to Colburn Lovett, a USIS Foreign Service officer, this led to hundreds of enemy defectors in the area. Similarly, Project Falling Leaves used armed teams of ex-Viet Cong members to deeply penetrate enemy territory in order to conduct face-to-face communications with Viet Cong soldiers. They also used loudspeaker teams, leaflet drops, radio, and television to spread ex-Viet Cong members' messages to defect (Goldstein and Findley 1996). By having former colleagues try to influence the Viet Cong and North Vietnamese army, the US sought to appeal to their emotions and once again appealed to people's sense of social identity.

The Vietnam War involved psychological methods of warfare from both sides. The Viet Cong and North Vietnamese Army relied heavily on fear tactics among their own people (Goldstein and Findley 1996), while the South Vietnamese and the United States influenced the enemy population using a blend of methods from traditional media, to loudspeakers, to face-to-face conversations. Some of these methods, such as Chau's Census-Grievance program and Operations Roundup and Falling Leaves allowed for fewer casualties while increasing the number of defectors. Psychological warfare took on a multi-pronged approach to attempt to achieve victory in Vietnam. There are many well-known lessons learned from the Vietnam War, but psychological warfare practitioners can also learn from this conflict, particularly how to engage populations during irregular

warfare. The methods used to influence adversaries have continued to evolve from these more overt methods of psychological warfare to a more hidden and subtle approach.

A Fire Hose of Fake News: Disinformation in the Age of Information

Psychological warfare between world powers continues to evolve and be used today. During the 2016 US presidential elections, the American public started to become familiar with terms like "trolls," "bots," and "fake news." While Russia's technique of using active measures and RCT was not new, US society's move to the internet and social media as sources of information enabled new ways to use these methods. In 2015, Russia enacted their largest targeted hacking campaign in order to find compromising materials on US political leaders. They were able to access much of the information from the Democratic National Committee (DNC) servers, but the Republican National Committee (RNC) servers are postulated to have had less usable information due to migration to newer hardware (Watts 2019). Russia's attack on US democratic processes consisted of trolls, bots, cyber-attacks, and state-run propaganda efforts.

Russian trolls used a mixture of spreading disinformation and strategically timing their amplification of facts in order to cause the most chaos and distrust among the US populace. Trolls, coupled with the use of bots, allow Russia to disseminate a large amount of "in-

formation" through various channels in order to overwhelm people and reduce their ability to discern truth from lies. This method, called "the firehose of falsehood" (Paul and Matthews 2016), runs counter to traditional means of influence, which relies on trust, credibility, and message synchronization. During the months leading to the 2016 election, "the troll army began promoting candidate Donald Trump with increasing intensity, so much so their computational propaganda began to distort organic support for Trump, making his social media appeal appear larger than it truly was" (Watts 2019). Once polls started to indicate that Trump may not win, Russia focused on spreading the idea that voting machines were hacked and the election was compromised—a tactic that backfired on them when Trump won the election. Years later, the US still appears to be divided, with people's faith in elected leaders and democracy continuing to decrease.

Disinformation is spread through social bots, which amplify false claims, allowing them to go viral on websites like Twitter. This ties into the previously mentioned "firehose of falsehood" method because several different versions of a story can be widely shared until a wider audience picks it up and amplifies its message. Twitter estimated that there are 1.4 million Russian-linked accounts (Watts 2019), many of which are bots amplifying messages spread through trolls and state-sponsored propaganda. Bots can be used to spread information acquired through hacking. Twitter data provided to the US House of Representatives showed over 36,000

Russian-linked bot accounts tweeting about the US election, with 288 million Russian bot tweets, and over 130,00 tweets directly linked to Russia's Internet Research Agency (IRA) (US House of Representatives 2018).

Leading up to the 2016 election, Russia used multiple methods to instigate strife between Americans and to spread disinformation. Another method used was Facebook advertisements with over 3,500 IRA advertisements and 11.4 million Americans exposed to those advertisements and 470 IRA-owned Facebook pages with 80,000 pieces of content created by those pages and 126 million Americans exposed to that organic content (US House of Representatives 2018). These are startling numbers that show how effective the IRA has been in understanding and exploiting American culture. They not only spread disinformation, but also exploited people's emotions; for example, they encouraged people to believe that their votes did not matter so they should vote third party or forgo voting altogether (Thompson and Lapowsky 2018).

Russia's attempts at creating division, or schismogenesis, of the American public lead to questions on how to counter an information environment saturated with fake news. Overall, people are susceptible to the spread of disinformation, with 23 percent of adults sharing fake stories during the months leading up to the 2016 election (Anderson and Rainie 2017). Both older and younger generations are susceptible for different reasons, with older adults lack-

ing an understanding of the internet and of the threat of state actors, while overfamiliarity of the internet leads to younger generations' vulnerability. With younger adults growing up in a culture where information is readily available through Google searches and anyone online can appear to be an expert, it can be challenging to convince younger adults to analyze articles and their sources (Conger 2019). This manipulation of the American public has not ceased and combating the spread of misinformation and disinformation is one of the current struggles the influence operations community is facing today. It is crucial for the United States to find ways to counter disinformation in order to retain its status as a world power.

Information Warfare Today

The United States continues to explore how to shape the behaviors of decision-makers, from working to enhance a friendly nation's perception of the US, through strategic communication, to influencing adversaries either to avoid conflict or enhance ongoing war efforts. Modern advancements in technology and psychological theory have enabled nation-states to reach individuals in ways previously considered unimaginable. The fiscal cost once associated with creating and spreading information and disinformation is no longer as much of a consideration. As history shows, the IO arena and the ability to influence an individual's cognitive and implicit processes have only become more sub-

versive and easier to produce. However, there are some obstacles preventing the United States from being as successful with messaging and countering disinformation as other countries.

The ease and impact of modern psychological operations have made their use extremely appealing to a multitude of nations. For example, Russia has worked diligently to unify its operations for the purposes of external influence. China has taken a different approach, leveraging introspective campaigns against its own citizens. North Korea has also embraced the psychological approach, sans technology, using cultural factors to influence its population (Matherly 2019). As the capabilities of these nations grow stronger, the United States lags further behind. Disjointed and poorly defined operations often create power vacuums or oversaturate the information environment, leading to mixed messaging and weak campaigns. The results are ineffective and create messaging that lacks the influence intended.

The United States is at risk of critically falling behind near-peer adversaries in the realm of IO. In a military system conceptualized around warfighting domains, the time has come to designate a new warfighting domain: the psychological domain. Doing so would allow the US to leverage capabilities like those of US adversaries. Leaders do not need to look far because pockets of excellence already exist within the DOD. These include US Army PSYOP command, the Marine Corps Information Operations Com-

mand, the Navy Information Warfare Systems Command, and the USAF's newly minted Information Operations Officer, or 14F, community, bolstered by the also new 16th Air Force, which was designated specifically as a centralized unit for information warfare. Unfortunately, what is currently lacking is a unity of command between these communities and confusion about the ownership of the messaging. These are only a start toward fully utilizing an operational understanding of to the psychological domain. While military leaders increasingly view information as a domain, they tend not to focus on the battle space fought in the cognitive realm, instead choosing to focus on non-kinetic effects, such as cyber and electronic warfare. As history has shown, the psychological domain is a strategic weapon with effects spanning all other domains and dissemination methods that rely on the same.

Psychological warfare also faces challenges based on the perception of the public and of decision-makers who choose whether or not to employ influence operations. In an arena where the theme is "perception is everything," influence operations are failing at perception management. With programs like MK Ultra, in which the CIA conducted mind control experiments on US citizens (*Project MK Ultra, the CIA's Program of Research in Behavioral Modification* 1977), the general population has reason to distrust the intentions of any type of psychological operation. With the abundance of misinformation and disinformation being spread online, people are often either overly critical of true information or only trust information confirming their preconceived biases. People often do not understand psychology, partially because the wealth of information available online has led to a population that believes that a layperson can be as informed as an expert (Nichols 2017). Online quizzes lead people to believe they understand personality tests, and therefore psychology as a whole. This perception may cause key decision-makers to forgo the use of psychological tactics in order to focus on traditional methods of warfare.

IO practitioners need to realize that the United States cannot and should not employ the psychological domain in the same reckless way that Russia does. The US aims to show the rest of the world that we are a proponent of trustworthiness and fairness. As a result, creating and distributing false stories would quickly erode the image of trustworthiness the US wishes to foster. Because the US values integrity, communicators delay releasing information in order to fact-check, a strategic weakness in the information arena, which leaves a void in which other countries can dominate the narrative with inflammatory and false headlines. In the world of fake news and intriguing headlines, what people see first often sticks, regardless of truth. If the US were to forgo a commitment to the truth, we would betray our cultural values, and the US would lose credibility in the eyes of the rest of the world (Watts 2019). Fortunately, often the best propaganda is true, so the US should continue to work to be a key leader in influence operations without betraying

US values. This may require creative and innovative solutions to these modern phrases, so exploring new means to share messages while countering disinformation campaigns is critical.

The psychological domain represents the next great shift in warfare. Other nations are choosing to leverage the domain in a way to propagate falsehoods and sow global divisiveness. The US has long stood as a stalwart of truth in rhetoric, often delivering stale and late timed facts to a conversation. By the time the facts have been delivered, fake stories have already convinced the public. If the US is to regain its footing, the DOD should not only formalize a sixth warfighting domain, but should also act to seize the narrative. As history has shown during major combat operations, the DOD has successfully leveraged this capability. The main difference between the information sphere today and during WWII or the Cold War is ease of access. The modern threat, danger, and risk of failure in the information environment are real, and an emphasis on psychological approaches could help.

Future research would benefit from articulating a way forward for the DOD, including what command structures and authorities would look like. This article's review of past uses of psychology as a warfighting domain stresses the importance of such an endeavor. The case studies the authors highlighted show that understanding human psychology changes the ways nations conduct warfare. Information is a source of national power, but without a unified and clearly defined domain, there is no way to decisively dominate and yield this power. Within the domain of psychology rests the opportunity to see an end to conflict before it begins, as Sun Tzu argued centuries ago.

Psychological warfare has a varied but significant history and was used both as a tool for nations to take on their foes and as a method to inspire and influence their own populations. During the Classical Era, the Trojan Horse was infamously used as a deceptive device that would force capitulation upon the enemy. Fast-forward to the World Wars, and propaganda was successfully used both to inspire friendly populations and to deter adversary populations from participating in their war efforts. Methodology and psychological science developed during the global conflicts and onwards, within the Soviet Union in particular, led to the refinement of RCT, an operational level planning tool for IO, while the United States refined and developed tactics and equipment for tactical level employment of PSYOP and influence operations. IO continued its evolution into the modern age, where electronic warfare, cyber operations, and the third industrial revolution redefined information operations like never before due to the new speed with which people could generate, transmit, and ingest information. Despite significant changes in information management, the key tenets of IO, based on influencing people, have remained steadfast and will continue to do so as long as human nature remains the same.

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