

AIR COMMAND AND STAFF COLLEGE

AIR UNIVERSITY

ONE PICTURE IS WORTH A THOUSAND BULLETS: THE POWER OF PICTURES AND
VIDEOS TO COMBAT FOREIGN ADVERSARIES AND INFLUENCE PERCEPTIONS

by

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A Research Report Submitted to the Faculty

In Partial Fulfillment of the Graduation Requirements

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August 2016

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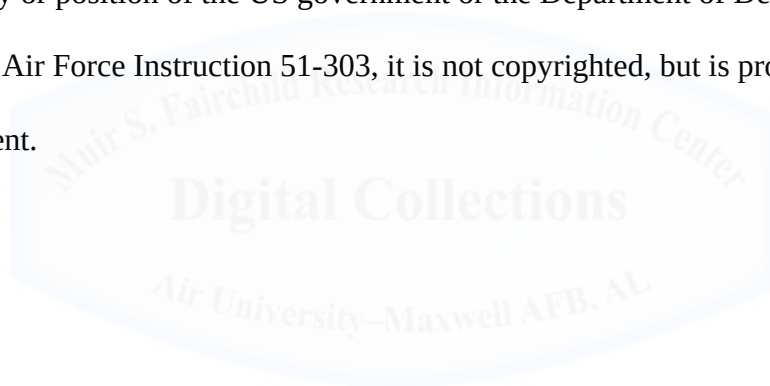


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ABSTRACT

This research answered the question, how can pictures and videos be exploited as an effective weapon to combat foreign adversaries, counter propaganda and influence perspectives? It focused on the substantial persuading capacities that result from incorporating photography and videography into messaging and the implications they have as a battlefield multiplier. The methodology used to do this was an assimilation of adapted case studies from across the fields of psychology, sociology, marketing studies and semiotics to extrapolate a primer for combatant commanders to better utilize their photo and video specialist. An analysis of the data led to the conclusion that pictures surpass any other visual medium to best combat foreign ideologies and influence perspectives.

This research recommended mirroring marketing campaigns by creating brands, which denote messaging, through which visual imagery can influence and persuade. Imagery also has to be the predominate focus of any visual messaging since it provides critical psychological stimuli to the observer, increasing emotional response and retaining memory. Commanders must employ their visual information specialist across a plethora of operations ensuring they are completely engaged at the tactical level, and restrain from solely focusing military photography and video assets on just U.S. troops and instead use the tools to promote partner nations and assist sympathetic audiences in order to garner prodigious messaging potential. Only by fully comprehending the magnitude of effects imagery can have and the substantial power pictures possess to motivate behavior can their potential be methodically exploited. Once that is understood and achieved, then comes the realization that a picture truly is worth ten thousand bullets.

INTRODUCTION

There is an age old adage that a picture is worth ten thousand words. It is only by valuing the consequences of photography and videography and recognizing how to effectively employ these assets will the military have the means to successfully combat enemy propaganda, making visual imagery just as important as bullets in the fight against terrorism.

This research examines the psychological and sociological effects pictures and videos have with the intent to provide a framework for commanders to better understand and in turn utilize the visual imagery assets they have at their disposal. Much exploration has been done from a marketing standpoint on how pictures influence behaviors and drive consumer habits with additional studies from the psychology field documenting reactions and responses to viewing different types of imagery. Additionally, the research adds to existing knowledge by expanding on previous fields and reconstructing them into a context the military can apply. The current conflicts the U.S. has found itself engaged in over the past decade are ideologically driven, making the ability to combat and influence perceptions one of the most powerful weapons in a military commands arsenal and a crucial component to success.

This research answers the question, how can pictures and videos be exploited as an effective weapon to combat foreign adversaries, counter propaganda and influence perspectives? Photos and videos have the power to elicit an emotional response, the power to affect change, and are some of the most influential tools a commander can utilize. The military employs many members who specialize in photography and videography, yet there is a severe deficient in understanding the importance of how or why to exploit these assets to their full potential. This

research identifies a plethora of areas that define the significant impacts imagery has on influencing perspectives and creates a roadmap for commanders at all levels to utilize.

The methodology this research employs is through a case studies framework and provides the reader with a clear background of the impact visual imagery can have and its contributions to achieve a battlefield advantage. Furthermore, a cohesive examination of visual imagery through analyses of psychology, sociology, media relations and semiotics will create a holistic narrative that can be applied to military strategy. By delineating the implications of photography and videography on shaping beliefs and thinking, the reader is provided critical insight into the capabilities these assets can support, means to better employ them, and be better equipped to support national security objectives.

The background section fully explores the importance of influencing audiences, specifically in light of recent world situations and the ideological conflicts plaguing today's society. It gives an overview of how and why photos and videos are used to counter propaganda and highlights some previous efforts made in these areas. Additional chapters cover the areas of psychology, sociology, marketing and semiotics. Research in the psychological realm emphasizes the significant impacts imagery has on brain functions while exploration into sociological studies showcase the influence of imagery throughout societies. The chapter on marketing reviews explores the prevalence images have on purchasing behavior and correlates the products consumers buy to messages the targeted audience "buys". The semiotic studies add the contribution and effects of symbolism to the previously identified impacts of imagery to create a cohesive study on the power of photos and videos.

BACKGROUND

Visual imagery possesses the critical capability to counter false messaging and establish a narrative making the exploitation of pictures and videos as an effective weapon just as significant to the U.S. warfighting effort as bullets. The power to achieve the aforementioned is crucial when fighting extreme ideologies either alongside kinetic actions, or on its own when an aggressive combatant approach may be counterproductive to meeting national security objectives. In 2005 Al Qaeda's number two man, Ayman al-Zawahiri, wrote a letter to Abu Musab al-Zarqawi stating, “[W]e are in a media battle, in a race for the hearts and minds of our *umma* [people].¹” The idea of being in a battle for hearts and minds rings true across all regions the U.S. is currently involved and it is through the exploitation of photo and video assets the military can better garner public support for the U.S., negate support for radicalism, and influence foreign opinions critical to achieving mutually beneficial ambitions.

On Aug. 11, 2010, the first day of Ramadan, insurgents struck a mosque on Forward Operating Base Wright in Kunar, Afghanistan, with four rocket-propelled grenades. The FOB commander had the oversight to immediately direct that photography be taken of the damage and released through local outlets along with a strong condemnation that the “insurgents had total disregard for their own brothers and holy places during this especially sacred times of the year.”² Previously the FOB had encountered indirect fire on a weekly basis for several months leading up to Ramadan. After the attack of the mosque and the subsequent reaction from the locals in response to the pictures that were released, the attacks on the FOB significantly diminished for the rest of Ramadan. It is impossible to quantify how many people were *not* injured or what

infrastructure was *not* damaged due to a lack of attacks, which creates an ambiguity to measuring effects. Yet, the power of a picture is undeniable.

The key to being effective communicators is not solely in the ability to gather an informative and emotionally compelling image, but even more so, it lies within the ability to exploit those images across a plethora of information related capabilities. Creativity is key, and understanding the surplus of effects that can come from a well-executed information strategy which employs visual information products will reap vast rewards for countering falsities and propaganda. Whether the employment method comes from showing videos on laptops as forces travel to villages, such as the Marines employed in Afghanistan; to creating recruiting posters that highlight the professionalism of our partner nation's governance; to adding images to press releases that showcase joint partnerships; to documenting tactical operations that dispel lies pushed out by adversaries – the possibilities are endless. But achieving results that change perspectives and alter opinions in favor of national interests will be ineffective if there are not images to support the messaging and U.S. military commanders must understand the magnitude of a pictures power.

Through studies across the fields of psychology, sociology, semiology, and marketing, photography has proven to play a vital role in how people both process and respond to information. Not only does simply having a picture next to text lead people to believe the truth of the claim, analyses have found that “the magnitude of the effect of photos on subjective feelings of truth was consistent over time.”³ Key factors like this need to be developed and utilized making visual imagery an imperative aspect of military strategy. Yet, some critics may argue that the impact of photos and video will not affect the outcome of current crises across the globe and

a solution will only be achieved by overpowering ones enemies with kinetic operations. In an interview by Lt. Gen. Michael Flynn with Fox news on July 12, 2016, he stated the U.S. can beat ISIS but has had a narrowly focused strategy that has concentrated on tactical actions and instead must “discredit the ideology, to go after in a much bigger way the initiative that ISIS, and frankly the radical Islamic movement has actually gained on us,” and continued to emphasize that it is the ideology that has to be contended.⁴ It is not solely possessing an overwhelming amount of fire power that is going to change the current tides of conflict, but instead will require utilizing all influencing capabilities in the U.S.’s arsenal, and until this can be achieved their disenfranchised opponents will continue to outmaneuver them on the ideological warfront. Army Lt Col Bryan Price, Director of the Combating Terrorism Center and an Academy Professor in the Department of Social Sciences at West Point, and Peter Favat, North American Chief Creative Officer for Deutsch, Inc., acknowledged this issue writing, “As evidenced by the unprecedented number of foreign fighters flowing into Iraq and Syria, our adversaries are beating the West in the propaganda domain.”⁵

Battle of the minds and the importance of influencing audiences

As long as the ability to create visual imagery has been around it has played a pivotal role in conflicts. Whether used to enhance public awareness, document terrain prior to battle, educate a foreign populace, or highlight atrocities, photos and videos have chronicled military history. But rather than just a means for documentation, visual imagery can be used itself as a tool to create and drive the narrative. A primary player in the current ideological battles plaguing modern day society revolve around conceptual ideas. The ability to combat them relies more heavily on syncing communication strategies and messaging than ever before. The enemy has

access to communicate with a larger audience through modern technology and social media and the pressure for the U.S. to proactively shape the anecdote is more critical than ever. In an effort to root out extremism, “one cannot defeat fanatical ideology just by imprisoning or killing its leaders; you have to defeat its ideas.”⁶

Irrespective of what the narrative is, the ability to shape perceptions and help stabilize a group or area is dependent on pushing a message that reflects reciprocal objectives and is not unintentionally counterproductive. As violence backed by religious extremism grows around the world a narrative being driven creates perceptions that democratic ideals are counterintuitive to specific religious traditions and said religions “are under siege by Western dominance.”⁷ The military is armed with specially trained photographers and videographers with the tools and ability to counter that narrative and influence foreign audiences. Yet, understanding how to employ visual information specialists as well as exploiting their ability to achieve momentous effects is vastly underutilized.

In order to change ideas one has to shape opinions and *show* an alternative viewpoint - the key being *show*. A primary tool to accomplish this is through imagery – photos and videos. This can be done by visually convincing the intended audience there is something better, safer, and more productive being offered. There is also a counter narrative that can be achieved through imagery in order to discredit and undermine an oppressive enemies attempts to instill fear or coerce. It is essentially the same concept applied in marketing to convince buyers one product is better than another or even to convince buyers they need or must have a product. Examining works from the marketing and advertising field and their ability to persuade consumers to buy

into their messaging provides a thorough and similar platform for information operations in the military.

To further achieve optimal affects requires the examination and interpretation of an even wider genre of studies than marketing, to include psychology. Analyzing how the brain functions in regards to both visual imagery as well as persuasion creates a scientific argument for the value of photography and videography to influence perceptions. Probing past studies in these fields further sheds light on the effectiveness of visual information to promote messaging and counter ideologies. Additionally, examining aspects of semiotics is needed to understand the capacity of signs, both through pictorial references and verbal cues, in order to enhance the impact of photography and videography.

Images in propaganda

Propaganda at its most basic form is the promotion of a cause or point of view, though the word bears a heavy connotation to the propagated information being misleading or biased. Just as images have always been an essential aspect of propaganda, the implied effects is that they are just as critical to counter it. The Nazis spent considerable time and effort studying propaganda in an effort to promote their brand and recognized the significant images had over words. In a translation of a Nazi pamphlet on propaganda techniques, the first in a series of pamphlets produced by Goebbels' *Reichspropaganda-Abteilung*, it analyzed the significance images had on posters, writing, "No one reads a poster stuffed with text ... The text should, as



Produced by the Nazis during the Second World War, “This particularly famous image depicts the Americans as a domineering force and characterizes many of their negative aspects, such as being money grabbing, racist, over-sexualized and all-empowering.” – Speckyboy Design Magazine, Sept 5, 2011.

already mentioned, be short and make the meeting topic clear ... The effect of the picture poster lies with its capacity to be understood at a glance, to get across the spiritual attitude instantly, whereas the text poster needs a certain time to read and a longer time to think about. The hurried city-dweller does not have much time. Mostly, he only catches a quick look at a poster while walking past. The picture has to instantly say at a glance everything that a longer text poster says.”⁸ The key point being the emphases on the picture being the most effective element of the message.

Studies have shown that people do not actually read words but instead are seeing images of letters and their sequencing is

interpreted as pictures making text presentations “simply not very effective for transforming information;” in fact only 10 percent of information presented orally is remembered three days later but 65 percent is retained if a picture is added.⁹ The very valid question Peter Temple raises in his workshop *Persuasive Presentation: Why Pictures Are Better Than Words* is that if “words don’t actually exist. Why use them if there’s a more powerful alternative?”¹⁰

The use of illustrations have been the most popular form of propaganda posters covering a plethora of topics; from Norman Rockwell's 1943 Rosie the Riveter poster which served as a call to arms to women to support the war efforts during World War II, to the iconic Che Guevara poster created by Jim Fitzpatrick in 1968 that became a global image during anti-Vietnam war protests, to MTVs "Sex is No Accident" campaign poster series to encourage safe sex.¹¹ In all of the most popular propaganda posters, pictures were the most prominent aspects.



"Rosie the Riveter" by Norman Rockwell. Published on the cover of the Saturday Evening Post, May 29, 1943.

A photo illustration can depict anything – which can be both good and bad. Its only limitation is the imagination of the creator. This makes it extremely effective to play on the emotional responses of the intended audiences. In the same vein that an illustration is effective, so too is an actual picture or video with the edge that the latter holds the weight of perceived truthfulness.

Examples of effective uses of photographs and videos

In today's era of technology where images and their implied messages can reach a global audience in a matter of minutes, the ability to capture picture and video to counter false

narratives and accentuate truths is paramount. According to Navy Cdr Tom Cotton, Joint Combat Camera Program Manager, in an article published after two Marine Combat Camera personnel died in the line of duty, he pointed out that the mission of Combat Camera is critical. “In an age where the adversary can snap a cellphone pic and post it on the Internet with no constraints or proof of validity, it is extremely important that we be able to provide solid visual documentation of operations and engagements to counter misinformation and misleading or blatantly false narratives,” he stated.¹²

To further improve information related capabilities on the battlefield, a RAND report was conducted to analyze U.S. operations in Afghanistan from 2001 to 2010 and presented a thorough study of both the successes and missed opportunities of employing photo and video elements. One IO theme the study reviewed was focused on exploiting the harm terrorism caused both the Afghan people and those in the U.S. At the beginning of the efforts in Afghanistan, printed images depicted an aircraft crashing into the World Trade Center and a video of the event was shown outside a health clinic in the village of Tadokhiel, Afghanistan. Though conceptually effective as a means to utilize imagery, the execution here was flawed. According to Mike Eckel, an Associated Press reporter, “most of the viewers could not understand the images on the screen of airplanes exploding into tall, glittering buildings; well-dressed people running from billowing clouds; firefighters, rubble, dust, destruction. Up until that point, most of the villagers had never seen a television, and few had seen pictures of New York City.”¹³ Additional reviews showed that most of the rural audiences “had never seen a skyscraper ... likewise, most of the target audience had never seen a jet airliner, either, and did not realize that those planes were also full of innocent civilians.”¹⁴

The relevance of the review is to emphasize the point that when used, imagery must resonate with, as well as reflect the sociological norms of the audience to be effective. Another account from an infantry captain told how a video “compiled of scenes from the events of September 11, 2001, and the days following, with a Pashtun narrative explaining what happened” was shown for villagers on a laptop or portable camera.¹⁵ Because of recognizing the need for and incorporating an explanation, the target audience was very interested in watching the show and the results were said to have helped them understand the U.S. presence in Afghanistan, furthering their “dislike of the Taliban and Al Qaida, and support for the U.S. forces in Afghanistan grew.”¹⁶

There are also many iconic images that immediately conjure emotions just upon seeing them. In American culture this could be demonstrated by photographs of the World Trade Center falling on 9/11, the flag being raised at Iwo Jima, or American runners Tommie Smith and John Carlos raising their black gloved fists during the 1968 Olympic medal ceremony in support of the civil rights movement – all these images capture a specific moment in time and appeal to deep emotions.¹⁷

In Iraq and Afghanistan photographs have stood out that depict climactic points during the wars; whether it is the images of Saddam Hussein’s statue being toppled by Iraqis and Marines in Firdos Square which was used to illustrate the Iraqis’ joy to be rid of the dictator, or the



'Flowers for a Friend' by Cpl Jamie Peters, Royal Logistics Corps. Guardsmen from 1 Welsh Guards chatting to Afghan children during a break in a patrol around their village during an operation to clear insurgent activity and reassure the villagers. Published Oct 9, 2013, In the UK Daily Mail.

gruesome photographs from Abu Ghraib that showed American Soldiers torturing prisoners and portrayed “Americans as exactly the sexually obsessed, crude, arrogant, godless occupiers that our enemies say we are.”¹⁸ In either scenario, the pictures spoke volumes more than any words could have. There were also a plethora of positive images to come out of the wars that challenged the

opposing forces narratives that the U.S. and allied militaries were there as destructive and arrogant occupiers. The key is to understand the full weight pictures and video have on an audience and through that knowledge, use it as a tool to counter violent propaganda and influence foreign perceptions.

Deficiencies in information operations

The Islamic State of Iraq and Syria released a propaganda showing images of “the terrorist group’s atrocities: kneeling prisoners shot point-blank; severed heads positioned next to a propped-up corpse; limp bodies left hanging from crosses in public squares” with the words, “Run, do not walk, to ISIS Land,” which became a “viral phenomenon - viewed more than 844,000 times on YouTube.”¹⁹ U.S. efforts to combat terrorist propaganda and to effectively shift the dialogue away from extremist ideology have been severely lacking. As Associated Press

reporter Lolita Baldor noted in an article addressing the subject, “So far, efforts by the U.S. and others to combat that propaganda campaign have been slow to form, as officials acknowledge they are losing the communications war.”²⁰ These sentiments were echoed by head of the FBI’s counterterrorism division, Assistant Director Michael Steinbach, stating, “We are losing the battle” and the amount of messaging being pushed by ISIS “eclipse our effort.”²¹ All of these offer resounding attestation that the efforts of our information related capabilities, which include photo and video assets in the form of combat camera, public affairs and military information support operations, are critical components to today’s modern conflicts.

Research, interviews with military IO professionals, and measures of effectiveness have annotated several inadequacies in the U.S. military’s proficiency to fully utilize their IO capabilities. Some of these noted in the previously referenced RAND report analyzing efforts in Afghanistan are:²²

- Lack of standardized IO integration with operations
- Long response time and coordination-process delays
- Ineffective interface between IO and PSYOP
- Isolation of IO officers
- Conflicting IO, PSYOP and PA functions

One of the key notes in utilizing imagery to counter propaganda resulting from a specific action is the timeliness of the release. Assuming the employing command allocates for imagery assets to be used, the approval process to release can be extremely time consuming and negate the potential benefits that could have been exploited. Referring back to the research in Afghanistan, “as actions occur on the ground, such as wounding a civilian or the capture of an insurgent, the U.S. message needs to reach the populations quickly and accurately.”²³ Lack of timeliness for the approval and release of products fettered the effectiveness of IO responses. In

addition to the aforementioned deficiencies, the number of combat camera men and women from the services has been reduced over the past couple years in response to force reductions – in a time when their expertise are needed more than ever.

Another key area contributing to deficiencies is the lack of understanding and integration of IO functions into all aspects of operations, with combat camera being one of many information related capabilities within IO that could be better exercised. Chairman of the Joint Chiefs of Staff Instruction 3205.01D lists combat camera functions as an essential battlefield information capability and directs commanders to employ their assets to document all aspects of wartime operations, worldwide crises, contingencies, humanitarian, and joint operations.²⁴ It does not specify how or why the employment of combat camera is relevant other than stating it is an essential capability. The dearth of guidance found in doctrine leaves IO susceptible to the commander's knowledge, or lack thereof, on how and why to employ the capabilities. The simple knowledge that combat camera personnel have the ability and are required to document classified imagery seems to elude many commanders. Army Major Joseph Cox wrote in his own research on IO in Operation Enduring Freedom and Iraqi Freedom, "Commanders have only viewed IO in terms of what can be presented in the media; as such, they have used IO to help spread good news (inform) rather than change a target audience's perceptions (influence), degrade their adversaries' ability to manage perceptions (attack), or even defend the information environment the commander has been trying to create (protect)."²⁵ The lack of engagement and understanding for IO, and specifically in this context the power of pictures, is an essential obstacle the U.S. military must overcome to better navigate and fight today's ideological battlefields.

CASE STUDIES

Psychology: research/implication of visual imagery on decision making

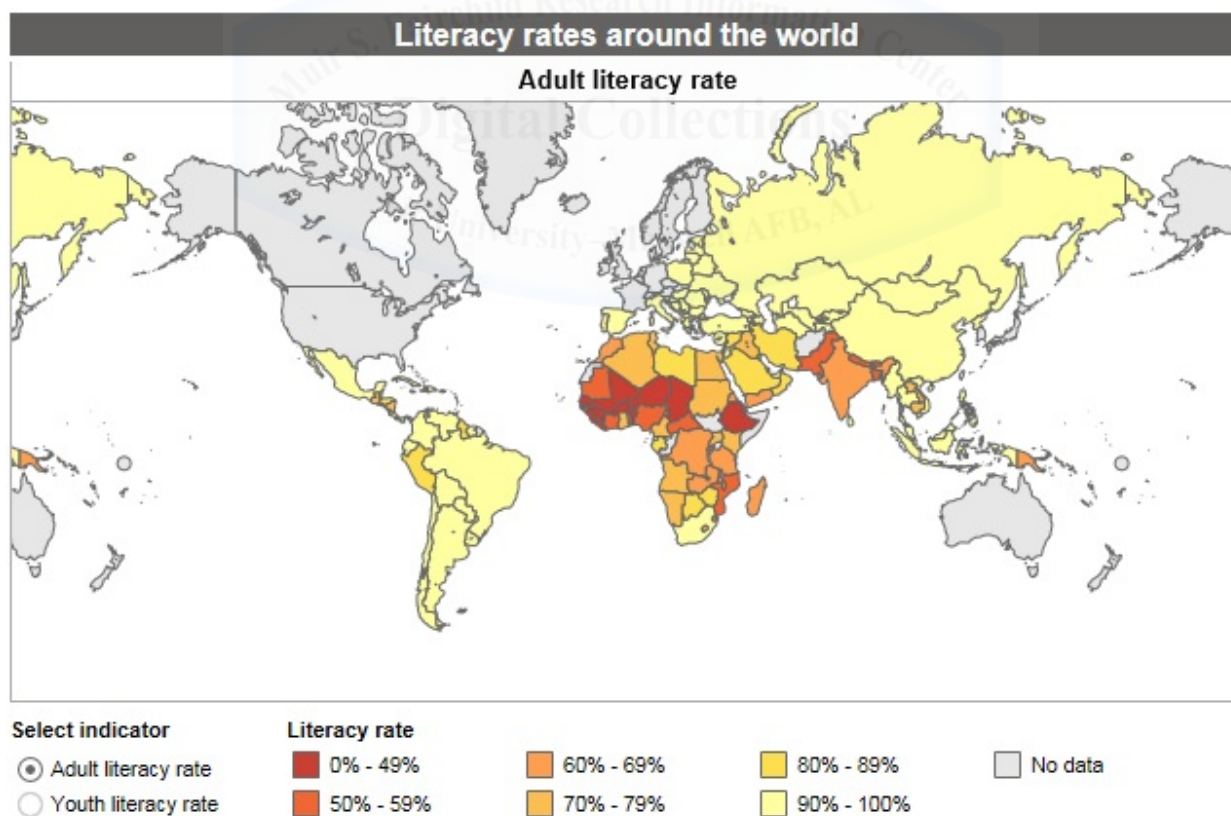
Psychological studies on the impact imagery has on the brain provide indispensable analytics to the appositeness of exploiting photography and videography as a means of messaging. It helps predict human behavior in relationship to the brains processing of information, principally in regards to the emotional and mental processing of images. Strategically incorporating this cardinal information into the processing and employment of messaging is the catalyst to effectively influencing behaviors.

One of the most relevant and simplistic studies to drive home the importance of photographic imagery on perceptions was done by the Victorian University of Wellington. The review of their experiment titled *Non-Probative Photographs (or Words) Inflate Truthiness* proved the magnitude photographs have on an audiences perception of what constitutes as truth. Through their experiments individuals were shown names of people, some well-known and some not, then responded either "true" or "false" to the claim that the person was dead or alive. Later, images were added to some of the names. The same experiment was done with general knowledge questions. Regardless of the statement, when an image was shown with it the subjects increasingly agreed with the information. The outcome gave conclusive evidence that “non-probative information can inflate subjective feelings of truth.”²⁶

Additional studies on the persistence of truthiness were conducted and published in 2013 in the International Journal of Psychonomics titled *The Effect of Nonprobative Photographs on Truthiness Persists*. In these studies, Elise Fenn, PhD, an assistant professor at California State

University, Northridge, and her colleagues examined the extended effects of nonprobative photographs and concluded that by testing subjects 48 hours after initial questions were posed, the impacts photographs had on the effects of truthiness remained.²⁷ Simply adding an image to a statement increases the believability of that statement making it one of the most compelling points to the importance of utilizing photographic imagery to combat propaganda.

Compound the impact these studies had on their selected audience from a country which is above the global literacy rate average, with the fact that the countries most affected by terrorism according to the 2015 Global Terrorism Index have a much lower literacy rate than the global average, and it exponentially increasing the necessity of using images in messaging. The Global Terrorism Index lists “concentrated areas of terror within the Middle East, Asian, and



International Literacy Data 2013 per the United Nations Educational, Scientific and Cultural Organization. www.uis.unesco.org

Africa as being the most affected by terrorist attacks. The top 5 from among the list are Iraq, Afghanistan, Nigeria, Pakistan, and Syria.”²⁸ Each of the countries listed have a below average literacy rate according to the United Nations Educational, Scientific and Cultural Organization, and it lists Afghanistan as having one of the lowest in the world estimated at 31 percent for the adult population.²⁹ As the U.S. military is involved in conflict and peace keeping missions across regions that have a significantly low literacy rate it makes text less relevant and further accentuates the need to convey messaging through the use of images.

Another concept relative to the psychological implications of using imagery as an influencer lies within the “heuristic” model of persuasion, as studied by social psychologist Shelly Chaiken. In her research she found that people may construct their agreement of a message on minimal amounts of information processing and focus judgements of validity based on “a rather superficial assessment of a variety of extrinsic persuasion cues such as surface or structural characteristics of the message itself, communicator characteristics, and audience characteristics.”³⁰ The implications of her findings mean that the physicality of a message, aspects such as its likeability, attractiveness and audience reaction, may have a greater influence on its ability to be persuasive. The basis of this could mean that the use of positive or uplifting imagery may have more persuasive appeal to an audience than a cognitively elaborate argument.

Another applicable element found in Chaiken’s research is that “heuristic processing of persuasion cues may sometimes occur without much active control or attention by message recipients.”³¹ This implies that often it is simplistic persuasion cues that affect decision making processes and a strategically placed image has the capacity to do more on affecting perceptions than a long drawn out argument. Since simplicity may be key and people are swayed by the

aesthetics and physicality's over exhaustive arguments, presenting or shaping an opinion is more effectively done by aesthetically appealing imagery.

The motivation of the intended audience is also a factor with significant relevance to why imagery plays such a large part in countering propaganda. In areas of conflict where the U.S. is engaged in countering terrorism either passively or aggressively, the majority of the audience is not actively seeking counter propaganda messaging. Therefore they can be categorized as an unmotivated audience and according to Chaiekn's research, less likely to systemically look to process information and "engage in message- and issue-relevant thinking."³² The lack of motivation means that simplistic persuasion cues, such as those that can be found in photographs and video, will have a greater influential impact.

The emotive impact photography and videography has is a key psychological function correlating to visual imagery. According to research by Helene Joffe, Professor of Psychology at University College London, "Visuals are thought to send people along emotive pathways where textual/verbal material leaves them in a more rational, logical and linear pathway of thought."³³ The power of an image to evoke a great emotional response gives it intrinsic influencing capabilities. The visual stimulus that comes from an image "leaves a rich and strong memory trace where less vivid information would fade"³⁴ which also makes a memory, feeling or perception associated with a picture last longer than a simplistic textual or verbal message. The implications are not only that the targeted audience is better influenced by being brought to an emotionally compelling state by the images, but the actual message will resonate longer.

Psychological studies afford an undeniable verity to the impact of imagery on the human brain and in turn deliver a powerful rationale to why they should be incorporated into messaging

to enhance the influence it has on intended audiences. Taking this into account, it would behoove commanders at all levels to understand the significance of their imagery capabilities and employ them accordingly.

Sociology: research/implication of visual imagery on societies

The sociological effects of photography lie deeply rooted in the narratives they creates. Knowing the imagery will tell the story means the wielder of the imagery, whether consciously or not, takes on the responsibility of helping to shape accounts. The implications are less severe in countries where people are inundated with images on a daily basis, but in regions where photography and videography is less prolific the impacts images can have on shaping societies narrative are profound and must be capitalized on. The relationship of photography and

sociology is organic in that sociology studies how societies work and photography has often been used as a tool to explore societies.³⁵ The photographer documents reality which is a visual explanation of how a society operates. The reversal is that photography also has the ability to influence a society and thus change the social landscape based on visual cues.



Dueling demonstrations clash as the Klu Klux Klan holds a protest rally on the steps of the S.C. State House building at the same time as a New Black Panther Party rally, July 19, 2015, in Columbia, South Carolina. The image, by U.S. Air Force Staff Sgt Kenny Holston, won first place in the news category at the 2015 Military Photographer of the Year awards.

Social solidarity is key to understanding how pictures can influence societies. Societies rally behind behaviors that enforce intrinsic values or beliefs. The effects can be amplified through pictures which sensationalize the principle as well as allow a tool for dissemination to a larger audience. An example of social solidarity was the image of “a Taliban man firing a rifle into the head of a woman in a blue burqua - an image widely distributed to provide evidence of the Taliban’s cruelty toward women,” which repulsed and infuriated those opposed to the Taliban regime.³⁶ But, the argument in respect to social solidarity is that by the Taliban’s public condemnation of alleged deviant behavior – the behavior being adultery or inappropriate conduct by the woman - it promoted social solidarity among the Taliban and sympathizers by reaffirming community values. Understanding the societal ideals of the intended audience is a critical component to using imagery to drive social solidarity. Another example from a different perspective was “the public display of American flags in the aftermath of terrorist attacks on the United States (which) promoted social solidarity by endorsing patriotic norms and identifying terrorism as deviant behavior.”³⁷ When the culture of the intended audience is understood images can be one of the most influential components to promoting social solidarity and through such, evoking emotive support for ideas and influencing group behavior.

A secondary factor in sociological implications of imagery is how to use photographs to create cognitive dissonance as a facilitator of social change. The basic explanation of Leo Festinger’s Cognitive Dissonance Theory is that when presented information that conflicts or shakes our current belief system, “we actively try to reduce this discomfort.”³⁸ That does not necessarily mean dismissing the new information but it requires the receiver to evaluate the conflicting cognitions and choose to either change cognitions, add new cognition or information, or to change behavior.³⁹ So by combining the emotional effects of imagery in messaging which

can create cognitive dissonance with an individual or an entire society, one could in turn change targeted behaviors. Dissonance is the stimulus to change and the efficacious use of imagery to spur the dissonance is the catalyst to revolution.

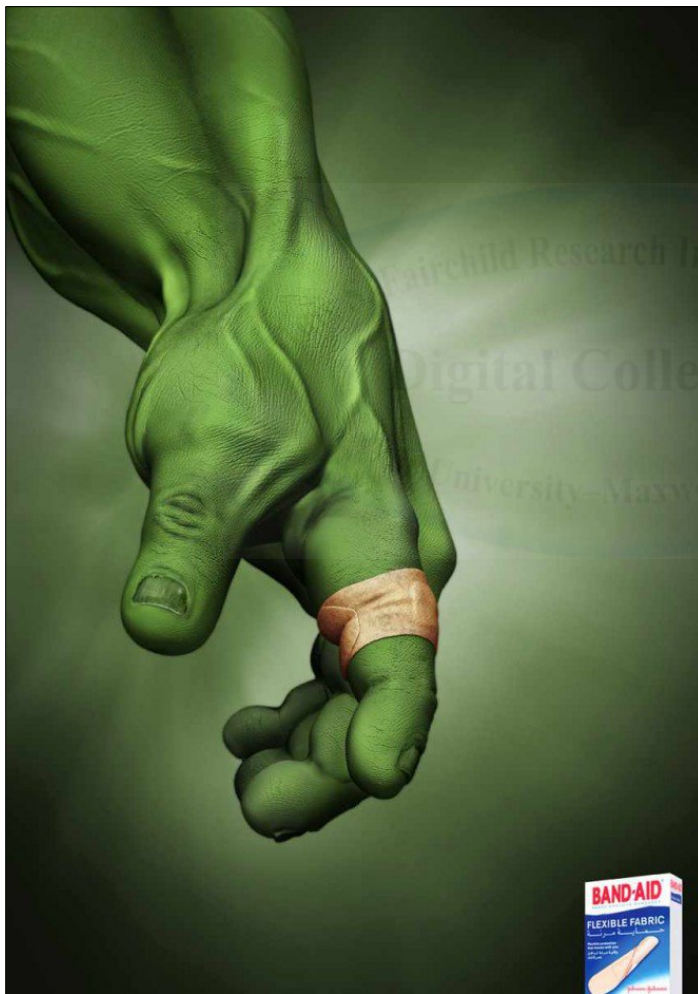
The same concepts of exploiting imagery can be applied when teaching partner nations how and why to use images, and the results on influencing behaviors may even be more effective when they originate from an organic source. In Tunisia, where a huge growth of 60% of young people are reported to now take pictures or video on their phones, it was the videos of local protestors credited with helping ignite the “Jasmine Revolution” in 2011 resulting in a successful uprising against a corrupt government.⁴⁰ In regards to aspects like social solidarity and creating cognitive dissonance, the message can be more influential if it is created by individuals deemed as insiders who understand and are engaged in the culture. Knowing this allows commanders operating in regions of instability to advocate for sharing best practices and using their information operation specialists as trainers, specifically in the fields of photo and video, for individuals sympathetic to a mutually beneficial cause.

Marketing: results of imagery on consumer effects

The study of marketing is critical to successful IO campaigns and needs to be fully evaluated for an efficacious employment of photo and video capabilities. Imagery is the catalyst to effective marketing, taking into consideration the aforementioned psychological and sociological effects of pictures and creating a packaged presentation to a potential consumer. It is the epitome of combined communication techniques by making generalizations that appeal to a large enough demographic to not be discriminating while simultaneously targeting a specific demographic. The same factors that enable the marketing of products to be successful are

transferable to military information campaigns as they in essence market ideas through messaging.

Visual imagery has been ranked the number one factor by 93 percent of people as impacting purchasing decisions.⁴¹ It adds a plethora of elements to a marketing campaign and according to marketing and design firm Garrison Everest, influences buyer behavior by “creating credibility, a favorable impression, a sense of style and customer engagement.”⁴²



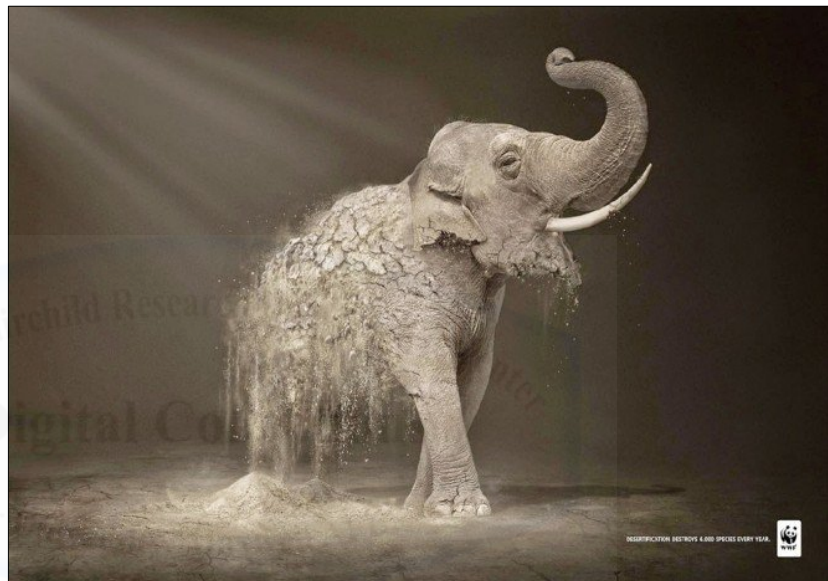
The advertisement for BAND-AID relies heavily on imagery with minimalistic text to convey its meaning. Created by J. Walter Thompson Dubai, it also is a perfect example of knowing the audience and exploiting popular culture. <https://designschool.canva.com/blog/clever-advertising/>

Marketing research lays out a strategy to get the message noticed and to make it the most influential.

Consumers are constantly inundated with advertisements so strategists are relentlessly researching ways to get a particular product or message to stand out. The studies are germane to any IO environment and particularly relevant to military operations when dealing with an audience who is not looking or may even be opposed to the messages presented. In a marketing article by Sheila Hibbard titled *Images – Why Important, Proper Useage, And Where to Use*, she calls images the primary

marketing took and backs her claim by quoting research showing that humans process visual imagery 60,000 faster than they do text.⁴³ Some of the key elements to making pictures effective she points to, which also hold much relevancy in the military information world, is to ensure that you select images that align with your audience and to let the image do its work by giving it room to communicate and not burying it or inundating the messaging with text.

The elements of effective imagery are critical because the immediate emotional reaction to advertisements can trigger a subconscious, instantaneous response to the product or messaging. A study addressing “The Impact of Feelings on Ad-Based Affect and Cognition” examined the relationship of attitudes generated for unfamiliar products. The findings were that the emotional reactions



In a campaign ad from the World Wildlife Fund, reviewed by Melanie Biehle, “‘Desertification’ depicts amazing animals turning to dust, putting the emotional ‘what happens when they’re all gone’ message right in your face.” <https://designschool.canva.com/blog/clever-advertising/>

had potential influences on the “evaluation of both an ad and the advertised brand” showing how the “affective and cognitive aspects of persuasion are intertwined rather than separate” in regards to advertising.⁴⁴

Key factors to create powerful visuals provided by GETTYIMAGES are:⁴⁵

- Use authentic visuals
- Be culturally relevant to your audience
- Use visuals that reflect the human experience
- Use visual storytelling tools like archetypal characters

The analysis of marketing is commanding research to the implications of photographs and videos on messaging, with the cumulous of all the examinations showing that imagery is the lynchpin to strategically creating a product consumers want to have. The extensive explorations conducted to sell products to a target audience can be easily emulated and germane to commanders and their imagery specialists as a means to designing effective messages.

Semiotics: effective parallels of imagery per individualized societies

Pictures can be symbols in and of themselves, as well as are filled with additional symbolism. Incorporating cultural codes through symbols and extrapolating their meaning in imagery creates a cohesive and excessive pictorial influencer. The U.S. military must understand the connotations images offer over more than simply their literal meaning to increase the effectiveness of the messages and decrease the probability of using an image which unintentionally counters the intended narrative.

In 2008 a match book was created and distributed in Pakistan with a picture of Osama



Pictures of then-wanted terrorists Osama bin Laden and Ramzi Yousef on matchbooks as part of the U.S. State Department's reward for justice program. Images courtesy of 911memorial.org

Bin Laden's face on a green background offering a reward by the U.S. government for information about his location. According to Army Sgt Maj Herbert A. Friedman, a graduate of the military Psychological Operations Course and PSYOP history editor of the

Psychological Operations Association (POA) journal *Perspectives*, “The Rand monograph did not like the color of the matchbook. Green is associated in many Muslim countries with Islam. Thus, Afghan audiences might have believed the printing of bin Laden’s image with a green background meant he was a Muslim holy man. They said it produced a ‘cognitive dissonance.’”⁴⁶ The aforementioned example highlights the negative aspects of not studying or applying lessons from semiotics into imagery.

Knowing what symbols represent in context to the culture of the intended audience may either decrease or increase the intended impact of the images. According to an article on target selection and symbolism, “The use of symbolism in armed struggle has been extremely effective historically both as motivation for one’s own forces and to instill fear in one’s enemy.”⁴⁷ Some examples of symbolism is how Jihadi propaganda often uses photographs of waterfalls in the background of the images “to evoke notions of purity, the divine, heavenly paradise, and religious piety.”⁴⁸ Additionally, according to the U.S. Military Academy’s Combating Terrorism Center, imagery of flowers reference martyrdom, and though both the green and white crescent moon represent Islam and purity, the green crescent moon is more militaristic, fundamentalist, and contains aggressive connotations.⁴⁹

Symbols themselves are “*things* which act as triggers to remind people, in the culture, of its rules, beliefs ... Every society has evolved a *system of symbols* that reflects a specific cultural logic; and every symbolism functions to communicate information between members in much the same way as, but more subtly than, conventional language.”⁵⁰ An example is the image of money which symbolizes possibilities because of the opportunities money can bring. In an interview with author Adam Adler, assistant professor of marketing at the New York University Stern School of Business, he said the actual experience of handing over money to pay for goods

creates a brain response similar to “mild physical pain” and because the image of money resonates so strongly with individuals, if money is destroyed in front of people, “their brains metaphorically revolt at that destruction.”⁵¹

The ability to correlate symbolism to a society and effectively develop it within photography and videography can enforce partialities towards beliefs and effect emotive responses from messages. As a quaternary element to the case studies it does not drive the tangible philosophies of images as an influencer, but instead acts as supplemental fodder to their strengths.



RESULTS OF CASE STUDIES

Correlation of psychology/sociology/marketing/semiotics together

Analyzing each subject as its own case allows a proactive approach to better utilization of images for combatant commanders. Combined, they create a primer for how photographs and videos can be exploited throughout foreign areas of interest that impact the U.S. national security strategy. The psychological effects of pictures and videos on emotions and perceptions have a direct correlation to opinions and memory. According to Piotr Winkielman, University of Warwick Professor of Behavioral Science, emotion and motivation are not separate things, but very similar with motivational relevance being a key component to the ability to influence.”⁵² Finding and incorporating relevant principles of a society will further drive the ability to create cognitive dissidence, spurring behavioral change, and appeal to or encourage social solidarity. Psychology and sociology pose the why component of the research question and validate the importance of pictures in messaging while marketing and semiotics illustrate the how. Marketing demonstrates the need to make images the focal point of any messaging campaign with an emphasis on emotional elements delivered in images to drive instantons responses to messaging. Semiotics highlights the importance of context in relation to the culture of the intended audiences to further develop the messages validity. Combined, the areas of research create a prodigiously compelling argument to the power and importance of photography and videography as a means to combat foreign adversaries and influence perspectives.

RECOMMENDATIONS

Recommendation one: make imagery the focus of all visual messaging products

The key take away from the case studies is the imperative need for combatant commanders to include imagery in as many products as possible, with the image being the predominate element of communication. Whether it is a written feature story, a poster, a press release, a social media post, a tri-fold, a billboard, a power point for a key leader engagement, or any other means of visual communication, photos and video should dominate the communication space. The previously examined research shows pictures elicit an emotional response which triggers a longer memory trace and is a strategic influencer, and messages with images are quicker for an audience to grasp than with written text, an imperative quality when working in areas with lower literacy rates and foreign languages. Imagery can be incorporated into messaging series or alone can create its own product and should be produced and disseminated throughout areas of opportunity, whether by use of leaflets and flyers, social media, videos shown on laptops, or simply Polaroid cameras with the pictures distributed in villages. The possibilities are endless and the potential must be exhausted.

Recommendation two: use images to create brands

Images should be used to drive messaging and counter propaganda, mirroring the same efforts and techniques as marketing campaigns. Communications should be synchronized across all platforms and the intended message developed like a brand being sold to a consumer. To create a consistent and appealing brand, or message, pictures and videos must be used repetitively and prominently to reinforce its connotation. The images need to establish creditability in the brand and elicit emotional responses in the viewer to be most effective. The branding effect could be used to unite tribes/clans and create a sense of nationalism, instill

confidence and reliance in a new organization, create trust in a position or personnel, encourage recruitment and retention for a sympathetic force – the possibilities are only limited by the parameters of one's ingenuity and gathering the appropriate images to support.

Recommendation three: embed photo and video assets into all operations

Photography and video assets need to be utilized as an operational capability and embedded with a wide array of units to allow maximum potential to gather imagery during every phase of an operation. As outlined in the case studies, the influencing potential alone garnered by exploiting imagery can be a lynch pin to success, specifically in the beginning phases of operations when audiences are still formulating opinions. Ensuring photo and video assets are immediately employed in operations allows the combatant commander to take a proactive approach to driving the narrative instead of a reactive one. This will require more education for mid-level leadership to understand the various visual information assets and what both their capabilities and limitations are as well as to accept them as a critical component that can give them a definitive battlefield advantage.

Recommendation four: share focus with partner nations

Commander's photo and video assets should not be viewed solely as a way to highlight what the U.S. is doing, though this is a common misconception. There is a definite requirement for aspects of imagery to be utilized as instruments for command information and to inform the public in the U.S., but there is also a categorical need to showcase successes of partner nations without highlighting external involvement and often times the U.S. military has the best tools to do it. An emphasis on embedding combat camera personnel with smaller contingencies in areas where the U.S. has an invested interest to help support their narrative is an indispensable force multiplier. As with the previously mentioned example of the "Jasmine Revolution," local populaces

have a better pulse on the culture than any outsider can, which is a key component to a successful marketing campaign. Commander have to break away from the mold that the photo and video assets are simply there as combat reporters, and fully exploit their capabilities as imagery experts employing them across a spectrum of opportunities. With the proper assistance and technical expertise U.S. military photo and video specialists can provide partner nations, the results can garner a wider berth of approbation and both parties will still benefit from the messaging.



CONCLUSION

This research establishes imagery capabilities as a fundamental tool for effectively influencing perspectives and combating violent and extremist ideological enemies who use propaganda as a retention and recruiting tool for terrorism. Additionally, photography and videography are a critical component to battlefield superiority and should be include in all aspects of operational planning and execution. According to the Combined Joint Chiefs of Staff Instructional 3205.01d, “Commanders involved in wartime operations, worldwide crises, contingencies, humanitarian operations, joint exercises, and other events involving DoD Components having significant national interest will plan for, task, sustain, and employ COMCAM forces.” Yet, military photo and video assets are often underutilized and leaders do not fully realize the capabilities their visual information specialists provide and how to successfully exploit them. In turn, U.S. military commanders excel at kinetic operations and prioritize efforts based on those abilities, often overlooking the extent of effects that could be achieved by photography and videography.

It is imperative U.S. military leaders better comprehend and utilize the influencing powers of their visual information specialists. Incorporating lessons from the areas of psychology, sociology, marketing and semiotics, presents a thorough roadmap to the effectiveness of imagery. Only by fully grasping the magnitude of effects imagery can have and the substantial power pictures possess to motivate behavior can their potential be methodically exploited. A picture has the power to change perceptions, the power to ignite revolutions, the power influence societies, and the power to dictate history. Once that is understood and exploited, then comes the realization that a picture truly is worth ten thousand bullets.

ENDNOTES

1. John Hughes. "In Battle for Hearts and Minds, Iraqi Insurgents are Doing Well."
2. U.S. Navy Commander Mark Edwards. "Taliban Attack Mosque on First Day of Ramadan."
3. Elise Fenn et al. "The Effect of Nonprobative Photographs on Truthiness Persists."
4. Lt. Gen Michael Flynn. "Lt. Gen. Michael Flynn takes on Trump VP buzz, new book."
5. Peter Favat and Bryan C. Price. "The Truth Campaign And The War of Ideas."
6. Tony Blair. "A Battle for Global Values."
7. John L Esposito and Dalia Mogahed. "Battle for Muslims' Hearts and Minds: The Road Not (Yet) Taken."
8. G. Stark, *Moderne politische Propaganda*
9. Temple, Peter. "Persuasive Presentation: Why Pictures Are Better Than Words."
10. Ibid.
9. Manaal. "25 Most Powerful Propaganda Posters That Made All The Difference."
12. U.S. Navy Cdr Tom Cotton. "Combat camera troops put their lives at risk to photograph war."
13. Arturo Munoz. "U.S. Military Information Operations in Afghanistan: Effectiveness of Psychological Operations 2001-2010." 36.
14. Ibid. 37.
15. Ibid. 37.
16. Ibid. 37.
17. Kyle Almond. "What makes an image unforgettable?"
18. Mark Bowden. "Lessons of Abu Ghraib."
19. Greg Niller and Scott Higham. "In a propaganda war against ISIS, the U.S. tried to play by the enemy's rules."
20. Lolita Baldor. "U.S., coalition conceded they are losing propaganda war against Islamic State."
21. Mike Levine. "FBI: 'We are losing the battle' to stop ISIS radicalization online."
22. Arturo Munoz. 119.
23. Ibid. 123.
24. Chairman of the Joint Chiefs of Staff Instruction 3205.01D. Joint Combat Camera.
25. Maj Joseph L.Cox "Information Operations in Operations Enduring Freedom and Iraqi Freedom – What Went Wrong?"
26. Eryn J Newman et al. "Non-Probative Photographs (or Words) Inflate Truthiness."
27. Elise Fenn et al. "The Effect of Nonprobative Photographs on Truthiness Persists."
28. World Facts. World Atlas.
29. United Nations Educational, Scientific and Cultural Organization. "Enhancement of Literacy in Afghanistan (ELA) program."
30. Shelly Chaiken. "The Heuristic Model of Persuasion." 3.
31. Ibid. 6.
32. Ibid. 8.
33. Helene Joffe. "The Power of Visual Material: Persuasion, Emotion and Identification."
34. Ibid.
35. H. S. Becker. *Studies in the Anthropology of Visual Communication* 1, 3-26.
36. Margaret L. Andersen and Howard F. Taylor. "Sociology: Understanding a Diverse Society, Updates." 167.
37. Ibid. 168.
38. Weh Yeoh. "Cognitive Dissonance and Social Change: What Can We Learn?"
39. Ibid.
40. "Internet Seen as Positive Influence on Education but Negative on Morality in Emerging and Developing Nations."
41. Josh Claflin. "How Photography Influences Buyer Behavior."
42. Ibid.
43. Sheila Hibbard. "Images – Why Important, Proper Usage And Where To Use."
44. Marian Chapman Burke and Julie A. Edell. "The Impact of Feelings on Ad-Based Affect and Cognition." 69-83.
45. Sarah Lawrence. "The power of visual storytelling."
46. Sgt. Maj. Herbert A. Friedman. "Welcome to the Home of the Psywarrior."

-
47. Robert T. Thetford. "Target Selection and Symbolism Why the Twin Trade Towers were targeted and what can we expect in the future."
48. *The Islamic Imagery Project*.
49. Ibid.
50. "Power of Symbols, Symbolisms, and Brand in Developing Global Markets: Anthropology of Business, Marketing, Leadership..."
51. Viveiros, Beth Negus. "Q&A: The Power of Money & Color: Symbols in Marketing."
52. P. Winkielman and K.C. Berridge. "Unconscious emotion."



BIBLIOGRAPHY

- Almond, Kyle. "What makes an image unforgettable?" CNN. Sept. 4, 2013. Web. July 12, 2016.
- Andersen, Margaret L. and Howard F. Taylor. "Sociology: Understanding a Diverse Society, Updates." Cengage Learning, 2007. 167
- Baldor, Lolita. "U.S., coalition conceded they are losing propaganda war against Islamic State." Associated Press. Jan 21, 2-16. Web. Thestar.com July 20, 2016.
- Becker, H. S. 1974. Photography and Sociology. *Studies in the Anthropology of Visual Communication* 1, 3-26. Web. July 22, 2016. <http://lucky.ukc.ac.uk/becker.html>
- Blair, Tony. "A Battle for Global Values." *Foreign Affairs* 86.1. (Jan – Feb 2007):79-90. Print.
- Lt. Gen Michael Flynn. "Lt. Gen. Michael Flynn takes on Trump VP buzz, new book." Fox News. Video. Jul. 12, 2016.
- Bowden, Mark. "Lessons of Abu Ghraib. *The Atlantic*. July/August 2004. Web. July 10, 2016.
- Burke, Marian Chapman and Julie A. Edell. "The Impact of Feelings on Ad-Based Affect and Cognition." *Journal of Marketing Research* Vol. 26, No. 1 (Feb., 1989), pp. 69-83
- Chaiken, Shelly. "The Heuristic Model of Persuasion." *Social Influence: The Ontario Symposium*, Volume 5. Psychology Press. 1987.
- Chairman of the Joint Chiefs of Staff Instruction 3205.01D. Joint Combat Camera. Oct. 20, 2014.
- Claflin, Josh. "How Photography Influences Buyer Behavior." *Garrison Everest*. Nov. 27, 2014. Web. July 28, 2016. www.garrioneverest.com/web-design/how-photography-influences-buyer-behavior
- Cotton, Cdr Tom. "Combat camera troops put their lives at risk to photograph war." Written by Seth Robson. *Stars and Stripes*. June 23, 2015. Web. July 12, 2016.
- Cox, Maj Joseph L. *Information Operations in Operations Enduring Freedom and Iraqi Freedom – What Went Wrong?* Rep. Fort Leavenworth: School of Advanced Military Studies, Kansas. Print. AY 05-06.
- Edwards, US Navy Commander Mark. "Taliban Attack Mosque on First Day of Ramadan." Press Release. International Security Assistance Force Joint Command – Afghanistan. Aug. 11, 2010.
- Esposito, John L, and Dalia Mogahed. "Battle for Muslims' Hearts and Minds: The Road Not (Yet) Taken." *Middle East Policy* 14.1 (Spring 2007): 27-41

-
- Favat, Peter, and Bryan C. Price. "The Truth Campaign And The War of Ideas." *CTC Sentinel* 8.7 (July 2015): 9-12. Print.
- Fenn, Elise, Eryn J. Newman, Kathy Pezdek, and Maryanne Garry. "The Effect of Nonprobativ Photographs on Truthiness Persists." *Acta Psychologica: International Journal of Psychonomics* 144 (2013): 207-11. Web. 26 Jan. 2016.
- Friedman, Herbert A., SGM. "Welcome to the Home of the Psywarrior. "PSYWAR Psychological Operations Psychological Warfare. Np., n.d. Web. Aug 01, 2016.
- Hibbard, Sheila. "Images – Why Important, Proper Usage And Where To Use." *The Marketing Bit*. Oct 16, 2012. Web. July 22, 2016. <http://www.themarketingbit.com/marketing-2/images-why-important-proper-usage-and-where-to-use/>
- Hughes, John. "In Battle for Hearts and Minds, Iraqi Insurgents are Doing Well," *Christian Science Monitor*, June 20, 2007.
- "Internet Seen as Positive Influence on Education but Negative on Morality in Emerging and Developing Nations." Pew Research Center. March 19, 2015. Web. Aug 9, 2016.
- Joffe, Helene. "The Power of Visual Material: Persuasion, Emotion and Identification." *Diogenes* February 2008 vol. 55 no. 1 84-93
- Lawrence, Sarah. "The power of visual storytelling." Getty Images. Web. July 14, 2016.
- Levine, Mike. "FBI: 'We are losing the battle' to stop ISIS radicalization online." *ABC News*. Feb 26, 2015. <http://abcnews.go.com/News/fbi-losing-battle-stop-isis-radicalization-online/story?id=29241652>, Web. July 26. 2016.
- Munoz, Arturo. "U.S. Military Information Operations in Afghanistan: Effectiveness of Psychological Operations 2001-2010." Santa Monica, CA: RAND Corporation, 2012. Print.
- Newman, Eryn J., Marryanne Gary, Daniel M. Bernstein, Justin Kantner, and D. Stephen Lindsay. "Non-Probative Photographs (or Words) Inflate Truthiness." (2012): Victoria University of Wellington. Wellington, New Zealand.
- Niller, Greg and Scott Higham. "In a propaganda war against ISIS, the U.S. tried to play by the enemy's rules." *The Washington Post*. May 8, 2015.
- Stark, G. *Moderne politische Propaganda* (Munich: Verlag Frz. Eher Nachf., 1930). Web. 13 July 2016. <http://www.emlii.com/795f0d22/25-Most-Powerful-Propaganda-Posters-That-Made-All-The-Difference>
- Temple, Peter. "Persuasive Presentation: Why Pictures Are Better Than Words." Video. <https://www.youtube.com/watch?v=hIK6xBGSOXw> Web. July 13, 2016.

The Islamic Imagery Project. West Point, NY: Combating Terrorism Center at West Point. 2006. "Power of Symbols, Symbolisms, and Brand in Developing Global Markets: Anthropology of Business, Marketing, Leadership..." Biz-Shifts Trends. Web. Aug 03, 2016.

Thetford, Robert T. "Target Selection and Symbolism Why the Twin Trade Towers were targeted and what can we expect in the future." Institute for Criminal Justice Education. September 17, 2001.

United Nations Educational, Scientific and Cultural Organization. "Enhancement of Literacy in Afghanistan (ELA) program." Web. July 19, 2016. www.Unesco.org

Viveiros, Beth Negus. "Q&A: The Power of Money & Color: Symbols in Marketing." Chief Marketing. Jan 7, 2014. Web. Aug 3, 2016.

Winkielman, P. and Berridge, K.C. "Unconscious emotion." *Current Directions in Psychological Science*, 13. 2004.

World Facts. World Atlas. Web. July 19, 2016. <http://www.worldatlas.com/articles/the-global-terrorism-index-countries-most-affected-by-terrorist-attacks.html>

Yeoh, Weh. "Cognitive Dissonance and Social Change: What Can We Learn?" *WhyDev* Dec. 18, 2010. Web. Aug. 10, 2016