Visual Propaganda in the Age of Social Media:

An Empirical Analysis of Twitter Images During 2012 Israeli-Hamas Conflict

Hyunjin Seo, Ph.D.

Assistant Professor and Docking Faculty Scholar

William Allen White School of Journalism and Mass Communications

University of Kansas

1435 Jayhawk Blvd.,

Lawrence, KS 66045-7515

Office: 785-864-7612

E-mail: hseo@ku.edu

Fax: 785-864-439

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Introduction

Visual communication has become increasingly important and relevant in the age of social media as people tend to prefer content that is simple, easy to digest and elicits emotion (Belicove, 2011; Goldstein, 2009; Rose, 2012; Seo & Kinsey, 2012). For example, research on Facebook found that photo albums, pictures, and videos generate far more engagements, or reactions from fans, than content without images (Belicove, 2011; HubSpot, 2011). The popularity of infographics – visual breakdowns of data – has also soared in this age of fast-paced information consumption (Li, 2013). In addition, personal images on social media sites can affect the perceived credibility of the messenger as well as information content shared by the messenger. Morris et al.'s study (2012) on Twitter credibility perceptions found that information shared by those who use their actual photos as profile images was rated as being more credible than that shared by those who use the default Twitter profile image (a colored background with a white egg).

The role of visual communication is often especially important when messages are communicated across different cultures and countries (Fahmy, 2005; Seo & Kinsey, 2012). This is why countries are spending more and more resources on visual-based social media campaigns to promote their messages and engage global publics. For example, the U.S. Department of State held the Democracy Video Challenge campaigns in 2009 and 2010 inviting citizens around the world to create and submit short videos on democracy in efforts to enhance the global dialogue on democracy (Seo & Kinsey, 2012).

More recently, images shared via social media served as powerful propaganda tools during conflicts. For example, during the renewed violence in the wake of the Israel Defense Forces' assassination of Hamas military chief Ahmed Said Khalil al-Jabari in November 2012, the Israel Defense Forces and Hamas' Alqassam Brigades posted graphic photos of deaths and suffering of civilians as well as more explicit propaganda illustrations through their Twitter accounts (Cohen, 2012). These photos and accompanying tweets were widely circulated as they were retweeted by social media users following the event and mainstream media used them in their reporting on the conflict (Peled, 2012).

This study investigates how images were used for propaganda by the Israel Defense Forces and Hamas' Alqassam Brigades during the November 2012 Gaza conflict to better understand the role of images in international propaganda in this age of social media and online social networking. Specifically, this research identifies prominent themes and frames appearing in the images the two sides posted to their Twitter accounts during a two-month period. The current study also examines what types of human characters appear in those images and what structural features each side used in producing those images. Moreover, this research investigates whether and how the images of the two sides differ in terms of themes, frames, main human characters, and structural features. Twitter images are chosen for analysis, as Israel and Hamas used Twitter as an important propaganda tool posting photos of bomb attacks, building destruction, and injured babies and citizens. Visual content analysis was used to examine images shared by Twitter accounts of the Israel Defense Forces (@IDFSpokesperson)

and Hamas' Alqassam Brigades (@AlqassamBrigades) from November 14, 2012 to

January 13, 2013.

The topic of this research is important, especially as previous research has shown

that visual framing of international conflicts influences viewers' emotional responses and

evaluations of communicative quality (Brantner, Lobinger, & Wetzstein, 2011). This

study contributes to communications and other areas of research in several significant

ways. First, this research updates literature on visual propaganda by providing empirical

data on visual propaganda in the age of social media. Second, the current study advances

research on visual communication by offering theoretical and methodological

frameworks for studying images shared via social media. Third, it enhances our

understandings of international communication by analyzing visual themes and frames

used during the information warfare between Israel and Hamas, an important case study

of international conflicts. Finally, the results of the study also have policy implications

for those who practice public diplomacy or international strategic communication.

Literature Review

Propaganda in the Networked Information Age

Networked digital technologies, including the Internet, have significantly changed

the ways we create and share information as well as how we connect with others

(Benkler, 2006; Castells, 2004; Lenhart, et al., 2010; Seo & Thorson, 2012). For

example, people in disparate parts of the world work together to produce content on wikis

– collaborative Websites – and can share their opinions with widely distributed Internet

users through social media such as blogs, Facebook, YouTube, and Twitter. Political

candidates and activists have organized and mobilized domestic and foreign publics via wide-scale and low-cost digital communication tools. These new communication channels enable citizens to participate in activities traditionally reserved for government representatives (Bennett, 2004; Castells, 2004; Chadwick, 2006; Moezzi, 2009). As Benkler (2006) puts it, the Internet has changed "the cultural practice of public communication" (p. 180).

In recent years, governments have begun using online-based communication tools to interact with global publics as part of their efforts to understand, inform, and influence them. For example, the U.S. State Department maintains a profile on Facebook and maintains the department's official blog, Dipnote, with updates posted to Twitter. Some U.S. embassies have created social networking sites on one or more of their host countries' popular websites to interact with publics in that country. An important example is Café USA, operated by the U.S. Embassy in Seoul. Such network-based public diplomacy is not confined to the United States. In 2007, Sweden opened a 3D-style virtual embassy in Second Life, called the Second House of Sweden.

In some cases, government entities or other organizations used social media for their propaganda purposes. Propaganda refers to "a form of communication that attempts to achieve a response that furthers the desired intent of the propagandist" (Jowett & O'Donnell, 1999, p. 1). While the use of propaganda has been an integral part of human history dating back to ancient Greece, developments in communication tools have influenced techniques of propaganda (Cull, Culbert, & Welch, 2003; Jowett & O'Donnell, 1999; Klein, 2012). One of the most recent examples is how Israel and

Hamas used social media tools in the wake of renewed violence in Gaza in November 2012.

Israel launched a social media campaign as part of its efforts to create more favorable international public opinions. Israel used Twitter, Facebook, Instagram, and YouTube channels to disseminate information about damages and casualties in Israel caused by Hamas. For example, the Israeli Defense Forces used its Twitter account (@IDFSpokesperson) to share with its more than 200,000 followers images of Israelis killed or injured during the Hamas attacks. They also created Twitter hashtags such as #PillarOfDefense and #IsraelUnderFire to drum up domestic and international support for their social media campaigns. Israeli Prime Minister Benjamin Netanyahu was also at the forefront of the social media-based information campaign. Netanyahu thanked "all the citizens of Israel and all over the world who are taking part in the national informational effort" (Cohen, 2012). He also posted a photo of an Israeli baby who had been injured in a Hamas attack with the caption reading, "For Hamas, every time there are civilian casualties, that's an operational success."

Hamas also forged a social media-based propaganda campaign. At the center of this campaign was Hamas' Alqassam Brigades, which used its Twitter account, @ AlqassamBrigades, to post graphic photos of Palestine babies killed by Israeli airstrikes. One of the tweets by Alqassam Brigades asked, "Where is the media coverage of Israel's crimes in Gaza?" (Cohen, 2012). As more and more people rely on social media to get information and stay connected with other people, governments or other organizations have begun to actively utilize different social media sites for their information campaigns.

Roles of Visuals in Propaganda

In the modern history, visuals have been an essential part of propaganda efforts, as images are often more effective than words in capturing the attention of the public and crystalizing sentiments (Cloud 2008; Edwards & Winkler 2008; Goldstein, 2009; Rose, 2012). This is a reason why political leaders have used images as one of the main ideological tools aimed at shaping people's perceptions to their advantage (Davis 2005; James 2006; Cloud 2008; Edwards & Winkler 2008; Erickson 2008; Hariman & Lucaites 2008). In the past a lot of visual propaganda relied on film, photography, and the fine arts to project political agenda (Goldstein, 2009). For example, the Nazis invested in producing photographs, films, posters, and art promoting Nazi ideologies while banning films and art that did not conform to their ideology. During the Roosevelt administration, the U.S. Office of War Information utilized photography, films, and other visual material to shape public opinion.

The developments in digital communication technologies and consequent changes in information consumption make visual propaganda more relevant. Studies have shown that visual content generates the most engagements in social media spheres (Belicove, 2011; HubSpot, 2011). For example, research on Facebook showed that photo albums, pictures, and videos generate far more engagements, or reactions from fans, than content without visuals (Belicove, 2011). Visuals are immediate and easy to digest and thus popular in this age of fast-paced information consumption (Li, 2013).

In addition, the role of visuals is more important when messages need to be communicated across different cultures and countries. Studies have shown that visual images have a significant influence on people's perceptions of cultures and countries

other than their own (Brantner, Lobinger, & Wetzstein, 2011; Cloud 2008; Kennedy 2008; Michalski & Gow 2007). For example, Brantner, Lobinger, and Wetzstein (2011) found that visual framing of the 2009 Gaza conflict influenced viewers' emotional responses, evaluations of communicative quality, and objectivity and perception of actor representation. Indeed, more and more countries are utilizing visual-focused social media sites such as YouTube, Instagram, and Pinterest in hopes of cultivating more positive perceptions of the country in the mind of foreign publics (Seo & Kinsey, 2012).

The renewed Israeli-Hamas violence in November 2012 epitomizes visual propaganda in this age of digital media and online social networking. Both sides often posted to their social media sites photos of their civilian victims, in particular babies or children, in order to elicit sympathy. They also created and tweeted propaganda posters that framed the other side as cold-blooded killers harming innocent victims.

Given the increased importance of the visual, this study analyzes the themes, frames, human characters, and structural features used in the images tweeted by the Israel Defense Forces and Hamas' Alqassam Brigades during the November 2012 conflict. It also examines whether there were any statistically significant differences between the two sides in terms of the themes, frames, and human characters portrayed in those images. Since little research has been done to study this topic, the following research questions are examined.

Research Questions

RQ 1: What are the prominent themes of the images tweeted by the Israel Defense Forces and Hamas' Alqassam Brigades?

RQ 2: Are there statistically significant differences between the images from the two parties with regard to prominent themes featured in those images?

RQ 3: What frames are prominent in the images tweeted by the Israel Defense Forces and Hamas' Alqassam Brigades?

RQ 4: Are there statistically significant differences between images from the two parties with regard to frames prominent in those images?

RQ 5: What are the main human characters featured in the images of each party?

RQ 6: Are there statistically significant differences between the images from the two parties with regard to human characters featured in those images?

Methods

Sampling

Content analysis was used to examine images shared by Twitter accounts of the Israel Defense Forces (@IDFSpokesperson) and Hamas' Alqassam Brigades (@AlqassamBrigades) from November 14, 2012 to January 13, 2013. The analysis period represents two months during which the two sides engaged in social media propaganda campaigns following the start of the confrontation in Gaza on November 14, 2012. The two-month timeframe was chosen because it represents the period where propaganda campaigns were most intensive around the renewed violence. A total of 72 images were tweeted by the Israeli Defense Forces and 171 images were posted by Hamas' Alqassam Brigades during the period. An image that was retweeted or reposted was analyzed only once. The unit of analysis was the individual image posted to Twitter, and each image

was analyzed for theme, frame, human characters, and production format. Specific coding categories are discussed below.

Coding Scheme

Theme. Grounded theory approach (Strauss & Corbin, 1998) was used in developing coding schemes for themes. Specifically, a constant comparative method was utilized in which all the images were examined by two coders who have extensive experience with content analysis. Then the coders worked together to identify themes and sub-themes appearing in the images. Initially data were coded into as many categories as possible with continual adjustments. Then these categories were integrated into broader categories by making connections between the categories initially identified. Once the categories for theme were identified, individual images were placed into those categories.

The process resulted in identifying seven thematic categories: *resistance*, *threats from the enemy*, *casualties of own civilians*, *casualties of own soldiers*, *destruction*, *unity*, and *humanity.* The *resistance* category covered images that convey defeating the other side or getting prepared for combating the other side – for example, Israeli soldiers attending training sessions and Hamas images of its M-75 projectiles. The *threats from the enemy* category covered images showing military capabilities of the other side such as missile launch sites or leaders of the other side drumming up support for military attacks. The *casualties of own civilians* category covered images of death, injuries, and suffering of innocent civilians of their own side. The *destruction* category covered images of buildings in their own territories being destroyed by attacks from the other side. The *unity* category covered images aimed at promoting solidarity among their own military personnel or civilians. Examples of images conveying the theme of unity include Hamas

posters asking people to show solidarity with Palestine prisoners jailed in Israel who were on hunger strikes and photos of a massive rally in Gaza celebrating the 25th anniversary of Hamas. The *humanity* category covered images emphasizing their efforts to protect civilians of the other side.

Propaganda frame. Previous studies guided development of categories for coding frames (Cull, Culbert, & Welch, 2003; Goldstein, 2009). The frame categories used in this study are: *overt* vs. *covert*, *analytical* vs. *emotional*, and *human interest* vs. *non-human interest*. The *overt* propaganda frame covered images that explicitly blame the other side for the renew violence and killing innocent victims. For example, Hamas tweeted an illustration of Netanyahu squeezing a baby to bleed and asking the baby "Tell me where is the Rockets. Confess." The *covert* propaganda frame covered images that implicitly label the other side as an "evil" – for example, a Hamas photo showing a grieving parent in front of a baby killed during an Israeli bombing attack.

The *analytical* propaganda frame covered images that provided facts about how the other side destroyed them, how they are prepared to defeat the other side, and what the public should be ready to do. The *emotional* propaganda frame covered images that aimed at raising awareness or attract attention by eliciting emotions such as anger against the other side or sympathy toward their own people.

The *human interest* frame covered images that highlight stories of individuals who suffer from attacks from the other side making the viewers feel that the stories are personally relevant to them and feel emotionally connected to those individuals and thus to the message. *Human interest* frames have been widely used in textual and visual propaganda as they tend to elicit strong emotional reactions.

Production format. In terms of production formats, (i) whether the image was a photo or illustration, (ii) whether a caption was accompanied with an image, (iii) and whether the caption was in English or their own language were analyzed. For the purpose of this study, a photo refers to a real image captured by a camera, and an illustration refers to an image created via image enhancement or other graphic software.

Intercoder Reliability

Two trained coders coded the same 15 images from the Israel Defense Forces' tweets and 34 images from Hamas Alqassam Brigades' tweets. This constitutes 20% of the sample size for each group as recommended by content analysis handbooks (Krippendorff, 2004; Riffe, Lacy, & Fico, 2005). Intercoder reliability was determined using *Scott's pi*. The intercoder reliability scores for the theme and frame was .95 and .92, respectively. The intercoder reliability scores for the human character was .97, and the mean intercoder reliability score for the production format was .98. These intercoder reliability scores were acceptable and thus the two coders proceeded to code a total of 243 for a final analysis.

Results

During the two-month analysis period (November 14, 2012 – January 13, 2013), the Israel Defense Forces posted a total of 72 images and Hamas' Alqassam Brigades posted a total of 171 images. On average the Israel Defense Forces posted between 2 and 3 images per day ($M = 2.44$, $SD = 2.47$) with the number of images posted per day ranging from 0 to 10. In comparison, Hamas' Alqassam Brigades posted an average of 5

or 6 images per day ($M = 5.6$, $SD = 7.07$) with the number of images posted per day

ranging from 0 to 26.

Prominent Themes (RQ1 & RQ2)

Research Question 1 asked what are the prominent themes featured in the images

tweeted by each side? As shown in Table 1, *resistance* was the most popular theme in the

images posted by the Israel Defense Forces accounting for 29.2% of its 72 images during

the analysis period. It was followed by *unity* (20.8%), *threats from enemy* (19.4%),

destruction (15.3%), *casualties of own civilians* (9.7%), *humanity* (4.2%), and *casualties*

of own soldiers (1.4%).

In comparison, *casualties of civilians* was the most prominent theme in the

images tweeted by Hamas' Alqassam Brigades accounting for 42.1% of the 171 images

from them. According to the Palestinian Centre for Human Rights (2012), 156

Palestinians were killed during the first week of the November 2012 conflict including

103 civilians 33 of whom children. The Israel Defense Forces claim most of the

Palestinians killed were militants (The Times of Israel, 2012). The second most

prominent theme was *resistance* (20.5%), followed by *unity* (17.5%), *causalities of own*

soldiers (9.4%), and *destruction* (7.0%).

Research Question 2 asked whether there would be statistically significant

differences between the images from the two sides with regard to prominent themes

featured in the images. A chi-square test showed statistically significant differences

between the two parties (χ^2 (1, $df = 6$) = 49.31, $p < .001$). This results mainly from the

fact that compared with the Israeli side, the Hamas side tweeted a significantly higher

proportion of images featuring casualties of own civilians. More Palestine civilians than Israeli civilians were killed during the 2012 conflict.

Propaganda Frames (RQ3 and RQ4)

Research Question 3 asked what would be prominent propaganda frames used in the images of each side, and Research Question 4 asked whether there would be statistically significant differences between the two sides in terms of prominent frames. As shown in Table 2, 50% of the Israeli images analyzed featured the *overt* propaganda frame and another 50% fell into the *covert* propaganda frame category. Of the Hamas images, 50.9% included the *overt* propaganda frame and 49.1% the *covert* propaganda frame. A chi-square test found no statistically significant difference between the two sides in terms of *overt* vs. *covert* frames (χ^2 (1, $df = 6$) = .02, $p = .90$).

When it comes to *analytical* vs. *emotional* frames, there were statistically significant differences between the two sides (χ^2 (1, $df = 6$) = 12.36, $p < .001$). Compared with the Israeli images, a significantly higher proportion of the Hamas images included the *emotional* frame. Specifically, 70.8% of the Israeli images fell into the *analytical* category and 29.2% included the *emotional* frame. In comparison, 53.8% of the Hamas images featured the *emotional* frame and 46.2% of the Hamas images included the *analytical* frame.

The results also showed that the *human interest* frame was prominent in the Hamas images than in the Israeli images. Only 29.2% of the Israeli images included the *human interest* frame compared with 56.1% for the Hamas side. A chi-square test showed the difference was statistically significant (χ^2 (1, $df = 6$) = 14.77, $p < .001$).

Human Characters (RQ5 & RQ6)

This study also analyzed types of human characters featured in the images and whether there were any statistically significant differences between the two sides (Table 3). The most frequently featured character in the Israeli images was Israeli soldiers accounting for 61.7% of the 47 photos that featured human characters. The second most frequently featured character was Israeli civilians (23.4%), followed by Hamas soldiers (8.5%), and Israeli media staff (6.4%).

Of the 153 Hamas-posted images that included human characters, Palestinian civilians were the most frequently featured (60.1%), followed by Hamas soldiers (15%), Hamas leaders (15%), Israeli leaders (5.2%), and Israeli soldiers (4.6%). These differences were statistically significant according to a chi-square test (χ^2 (1, $df = 6$) = 59.84, $p < .001$).

Male characters were dominant in the images of both sides. Of the 36 Israeli photos where the gender of the characters was identifiable, 88.9% were male and 11.1% were female. Of the 125 images where the gender of the characters was identifiable, 91.2% were male and 8.8% were female. There was no statistically significant difference between the two sides in terms of the gender ratio of the human characters featured in the images (χ^2 (1, $df = 6$) = .18, $p = .67$).

Production Format

While most images that the Israel Defense Forces and Hamas' Alqassam Brigades posted were photos, each side created some illustrations often with captions. As discussed before, in this study a photo refers to a real image captured by a camera, and an illustration refers to an image created via image enhancement or other graphic software.

About 70.8% of the Israeli images were photos and 29.2% were illustrations. About 72.5% of the Hamas images were photos and about 27.5% were illustrations. About 41.6% of the Israeli images included textual messages. Of them, 96.7% were in English and 3.3% were in Hebrew. About 30.9% of the Hamas images included textual message. Of them, 41.5% were in English, 35.8% were in Arabic, and 22.6% included both in English and in Arabic.

Discussion

This study used content analysis to examine images the Israeli Defense Forces and Hamas' Alqassam Brigades posted to their respective Twitter account during the 2012 Gaza conflict. Themes, frames, human characters, and production formats were analyzed to understand how visuals were used for their propaganda purposes in this social media age. This research yielded several important findings that offer useful academic and policy implications in the areas of visual communication and international communication.

There were interesting differences between the Israel Defense Forces and Hamas' Alqassam Brigades in terms of themes prominent in the images they posted to their Twitter accounts. *Resistance* was the most prominent theme in the Israeli images, whereas *casualties of own civilians* was the most prominent in the Hamas images (Table 1). For example, the Israeli Defense Forces tweeted an illustration featuring an image of Alhmed Jabari with a giant stamp – "ELIMINATED" (Figure 1). Ahmed al-Jabari, head of the military wing of Hamas, was killed by an Israeli airstrike on November 14, 2012, and his death was the source of the renewed violence in 2012. That image of Ahmed al-

Jabari was reminiscent of a Hollywood film poster, and it invited criticism that Israel was gameifying the war (Cohen, 2012). The second most prominent them in the Israeli images was *unity*. For instance, they posted several images aimed at drumming up support for Israeli forces especially during the Israel Air Force Weekend. The *resistance* frame may have been dominant as Israel tried to avoid being labeled the aggressor. The prominence of the *unity* frame may be explained by Israel's efforts to appeal to the global Jewish community.

In comparison, a majority of the images tweeted by Hamas' Alqassam Brigades focused on deaths, injuries, and suffering of innocent civilians – in particular, babies or children. Many of them were very graphic. For example, one photo showed a parent crying in front of the body of a baby with a big hole in his skull. Hamas also created illustrations featuring innocent victims to explicitly describe Israeli leaders as "cold-blooded killers." Hamas tweeted images of Netanyahu walking on Palestinian babies or torturing a Palestinian child to bleed while asking the child, "Tell me where is the Rockets. Confess" (Figure 2). The fact that a significantly higher proportion of the Hamas images showed civilian victims may reflect the reality that more Palestinian civilians were killed during the conflict. It may also be part of Hamas' efforts to portray Palestinians as "victims" and Israelis as "aggressors." Indeed, Hamas tweeted an image of an Israeli female soldier who allegedly killed a Palestinian minor and labeling her a "terrorist" (Figure 3). The caption for the image read, "Meet the terrorist: Shot dead 17 year old Muhamad Salayme in Hebron on his birthday, December 12, 2012."

One of the most significant differences between the images of the two sides was presence of *analytical* vs. *emotional* propaganda frame. While the majority of Israeli

images featured the *analytical* propaganda frame, a significantly high proportion of Hamas images included the *emotional* propaganda frame (Table 2). Most Israeli images focused on factual elements regarding damages Israel sustained during the confrontation as well as military capabilities of and threats from Hamas. Infographics that visually presented data frequently appeared on Israeli tweets with some infographics showing Hamas' missile launch sites.

Images posted by Hamas often resorted to the *emotional* propaganda frame to increase effects of their messages. Hamas frequently tweeted images of sobbing parents or relatives in front of babies or children killed or injured by Israeli airstrikes (Figure 4). Hamas also posted an image contrasting a Caucasian girl sleeping on a comfortable bed holding a teddy bear with Palestinian children killed and laid in a hospital bed. The caption for the image read, "That's the way children all over the world sleep. That's the way our children sleep forever."

Both sides utilized call to action such as "share this" in efforts to spread their messages beyond their Twitter followers. This is a propaganda tactic employed in this digital media age where sharing information is often only a click away. Call to action often appeared in captions accompanying photos. For example, Israel tweeted an image showing Hamas' rockets in the Israeli territory with the caption reading, "Alert. Rockets were fired into Israel. Share this." Hamas shared a photo of several Palestinian children killed during an Israeli airstrike that included a caption that: "Israel says it is killing terrorists in Gaza. Who are these 'terrorists'? Of the 16, 10 are civilians, 5 are infants/children, 3 are senior citizens and 2 are women. The number of Israelis killed? Three. Share now."

These findings suggest that the rapidly evolving digital media environment has pushed organizations to employ some new propaganda tactics while continuing to utilize some existing tactics. While the Israel Defense Forces and Hamas' Alqassam Brigades engaged in a real war on the ground, the two sides were involved in social media-based information warfare responding to the other side's Twitter posts or images and asking ordinary citizens in their own country or in other countries to spread their messages. With the increased use of social media sites worldwide, real-time engagements with their audiences have become an essential element of propaganda.

While the method, speed, and scope of propaganda campaigns have evolved in accordance with changes in communication environments, key themes and frames of propaganda messages remain similar. *Resistance*, *casualties of innocent victims*, and *unity* are the themes that appeared prominently in visual images concerning international conflicts (Cull, Culbert, & Welch, 2003; Goldstein, 2009). The visual propaganda framing analysis categories – *overt* vs. *covert*, *analytical* vs. *emotional*, and *human interest* vs. *non-human interest* also were found to be relevant in analyzing social media-based visual propaganda images.

Future research may examine audience reactions to visual propaganda messages via social media. It will be also useful to compare propaganda tactics used in mainstream media with those used in social media. Comparing the Israeli-Hamas example with other recent or ongoing international conflicts will be helpful in identifying underlying changes in visual propaganda in the digital media age.

Based on a visual content analysis of Twitter images posted during the recent Israeli-Hamas conflict, this study contributes to communications and other areas of

research in several ways. Most of all, the current study advances research on visual communication by providing theoretical and methodological frameworks for studying images shared via social media sites. Second, this research updates literature on visual propaganda by providing empirical data on visual propaganda in the networked information age. Third, the study enhances our understandings of international communication by analyzing themes and frames used during the information warfare between Israel and Hamas, an important case study of international conflicts. Finally, the results of the study also have policy implications for those who practice public diplomacy or international strategic communication. Some of the differences observed between the Israeli images and Hamas images in terms of prominent themes and frames may be accounted for by the enormous military power difference.

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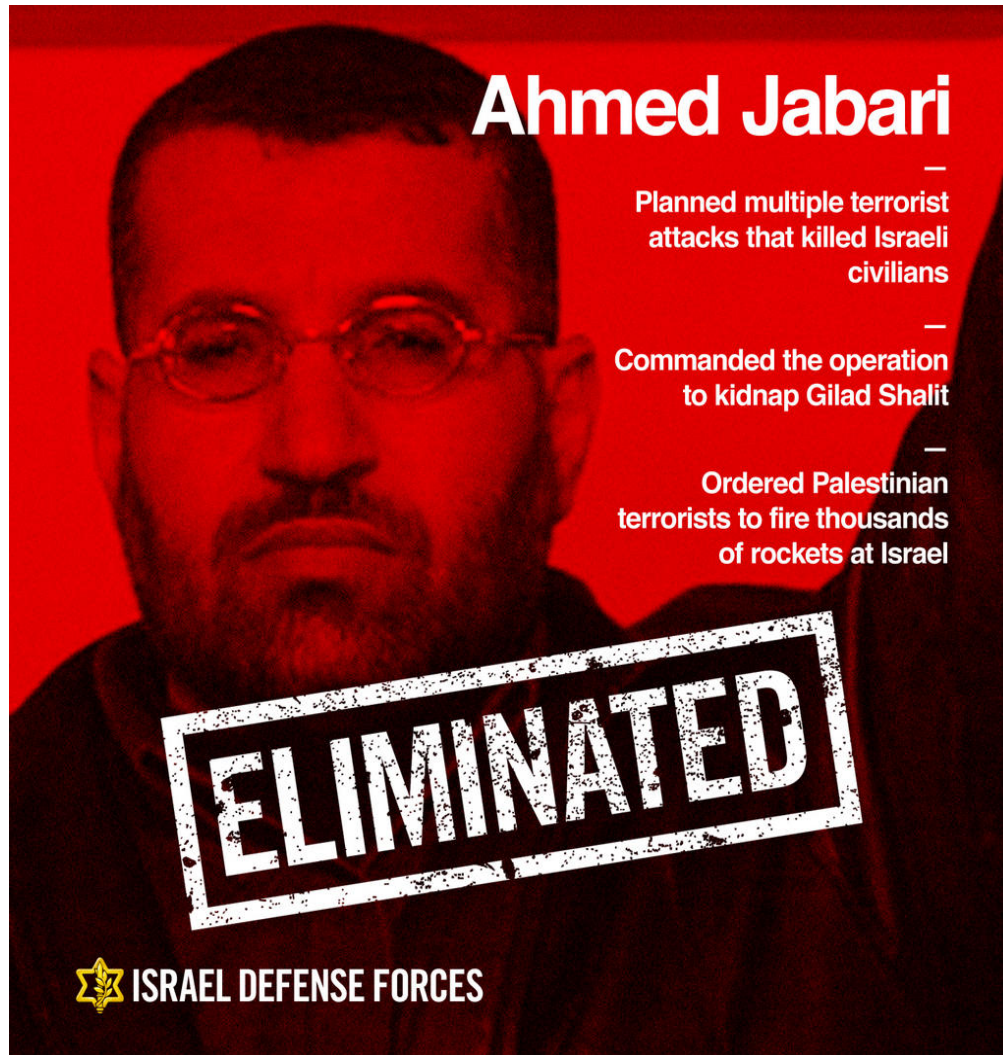
aviv/

Figure 1. An image of Ahmed al-Jabari, head of the military wing of Hamas who was killed by an Israeli airstrike, tweeted by the Israeli Defense Forces on November 14, 2012. An example of *resistance* theme.

Figure 2. An image of Israeli Prime Minister Benjamin Netanyahu torturing a Palestinian baby tweeted by Hamas' Alqassam Brigades on November 19, 2012. An example of *overt* propaganda frame.
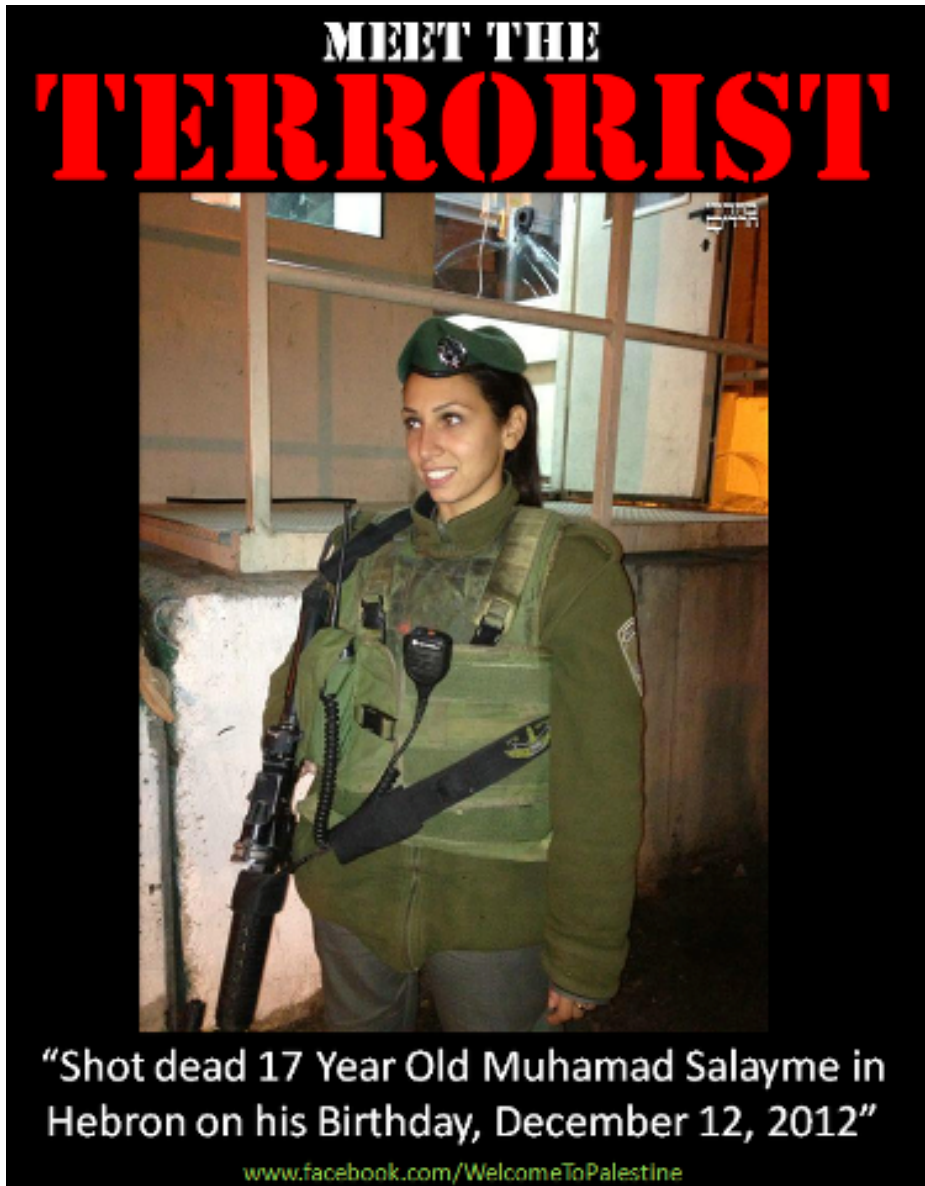
Figure 3. An image of an Israeli female soldier who allegedly killed a Palestinian minor.

Tweeted by Hamas' Alqassam Brigades on December 15, 2012. An example of

resistance theme.

Figure 4. An image of a Palestinian parent whose children were killed during an Israeli airstrike tweeted by Hamas' Alqassam Brigades on December 12, 2012. An example of *emotional* propaganda frame.

Table 1 Prominent Themes in Twitter Images

Theme	Israeli Defense Forces		Hamas' Alqassam Brigades	
	n	Percent	n	Percent
Resistance	21	29.2%	35	20.5%
Threats from the enemy	14	19.4%	6	3.5%
Casualties of own civilians	7	9.7%	72	42.1%
Casualties of own soldiers	1	1.4%	16	9.4%
Destruction	11	15.3%	12	7.0%
Unity	15	20.8%	30	17.5%
Humanity	3	4.2%	0	0.0%
Total	72	100%	171	100%

Table 2 Frames in Twitter Images

Frame	Israeli Defense Forces		Hamas' Alqassam Brigades	
	n	Percent	n	Percent
Overt vs. covert				
Overt	36	50%	87	50.9%
Covert	36	50%	84	49.1%
Total	72	100%	171	100%
Rational vs. emotional				
Rational	51	70.8%	79	46.2%
Emotional	21	29.2%	92	53.8%
Total	72	100%	171	100%
Human interest vs. none				
Human interest	21	29.2%	96	56.1%
None	51	70.8%	75	43.9%
Total	72	100%	171	100%

Table 3 Human Characters Appearing in Twitter Images

Human Characters	Israeli Defense Forces		Hamas' Alqassam Brigades	
	n	Percent	n	Percent
Own civilians	11	23.4%	92	60.1%
Own soldiers	29	61.7%	23	15.0%
Own political leaders	0	0%	23	15.0%
Soldiers of the other side	4	8.5%	7	4.6%
Political leaders of the other side	0	0.0%	8	5.2%
Medical staff/police/other	3	6.4%	0	0.0%
Total	47	100%	153	100%