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Abstract

In this study, the researcher aims to look at how people would react to Islamists' online persuasive messages. This study is designed to measure the effects of two types of persuasive messages on people's attitude changes and information seeking behavior. Participants were recruited from a diverse pool using the Mturk website. The researcher recruited participants who are considered out-group members. Those are people who are primarily non-Muslims and non-Arabs. A 3 by 3-multifactorial between subjects experiment with the factors of message type (action justification, group-identity and no messages) and pre-existing attitude group (negative, neutral, and positive) was conducted to examine how a change in attitudes and behavior of these out-group members would occur after receiving the messages. The research findings show an overall favorable attitude change, including members of the control group who were not exposed to any messages. Participants who already held favorable attitudes about Islamists and were exposed to group-identity messages, were they became less favorable about Islamists. The results also indicate that a favorable attitude change does not necessarily lead to more information seeking behavior.

Understanding the Effect of Islamists' Online Persuasive Messages on People's Attitude
Change and Information Seeking Behavior

By

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B.A., Cairo University, 2010

THESIS

Submitted in partial fulfillment of the requirements for the degree of
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Chapter 1: Introduction

The Internet is a communication platform through which people from various backgrounds interact. The interactions that are a result of the Internet provide people with the opportunity to share knowledge, and exchange messages and expertise from any place in the world. Chen and Zhang (2010) explain that with the “convergence of the media and globalization,” the world has become a smaller interactive field. Therefore, individuals who are interested in Islam are vulnerable to interactions with groups that could either inform or radicalize them. The online platform is used as both an anti-extremist tool to track down terrorists, and to attract individuals into new terrorist networks (Seib & Janbek, 2011). It has given various groups the opportunity to promote their ideologies through open forums and other venues like Social Network Sites (SNS). The Internet has facilitated access to millions of people worldwide, who may either share the same ideology or potential interests.

In its annual 2014 global terrorism report, the U.S. Department of State reported that there is more than a 40 percent increase in terrorist attacks worldwide, due to an increase in the number of al-Qaeda like-minded affiliates in the Middle East. Just like other groups around the world, Islamists are using the online platform to deliver their messages. An al-Qaeda group launched the English language magazine “Inspire” in order to inform current, and attract future, jihadists. The Muslim Brotherhood set up its twitter account @ikhwanweb to promote the brotherhood. Jihadists in Syria are spreading the word from within through various Twitter accounts such as @almustaqbal_en and [@ajnad](#). Even Kuwaiti private donors who collect money to finance jihadists are using twitter along other social media to raise funds (Dickinson, FP, Dec.2013).

The Rise of Social Media

The concept of social media is not exclusive to the 21st century. In 1979, researchers from Duke University created a worldwide discussion forum called “Usenet,” which was a platform for people to write messages for the public on the Internet. Ever since then,

there have been new platforms: blogs, virtual game worlds, collaborative projects, virtual social worlds, social networking sites and content communities (Kaplan and Haenlein, 2009). One of the most popular SNS is Facebook. The site has over one billion users (Fowler, 2012).

Studies show that people with excessive Facebook habits are more vulnerable, insecure and have lower self esteem compared to others (Sundar, 2013; Mehdizadeh, 2010). These individuals are heavy Facebook users who tend to care more about what others say about them and the image they portray. Research findings show that Islamists target these types of people who suffer social grievances (Laguer, 1977).

According to Nadkarni and Hofmann (2011), individuals who use social network sites could identify with other users and feel they belong to a social network. Facebook provides the opportunity for the website's members to either connect with their friends, or people they are willing to get introduced to through Facebook groups. The "likes" that individuals receive on their posts are an example of social acceptance, and are a way to determine self-esteem and self-worth (Nadkarni & Hofmann, 2011). The "like" button on Facebook show people that their friends support the information they post. Likes as identified by Facebook are about making a "connection." The need for connection, competence and autonomy are basic human feelings, explained in self-determination theory (Deci, E., & Ryan, R; 1991) According to studies, Facebook and other social network sites bolster these human's needs (Nadkarni & Hofmann, 2011; Sheldon et al., 2011; Kim & Lee, 2011).

Who are the Islamists?

In the first half of the twentieth century, most of the Muslim countries were under the colonization of both the British and French empires. These colonial powers westernized Muslim countries' "values, dress code, educational systems, lifestyles and economics" (Marzui, 2006; pp.3-4). In the latter half of the century, with the rise of globalization, groups of people with Islamic backgrounds who have an interest in politics,

known as “Islamists,” were formed to challenge the globalization that they viewed as a western method to sweep Muslim communities of their origins (Edwards, 2004).

Islamists are individuals who aim to reach Islamic utopia by any means. Their goal could be reached either through violently aggressive methods such as assassination, terrorism, suicidal actions, or through “propagation,” “peaceful indoctrination” and/or “political struggle” (Mozaffari, 2004, p.24). In his book “The Challenge of Fundamentalism” (1998), Bassem Tibi argues that Islamists attack the West with the belief that they could replace western power if they disrupt the world’s order. Tibi explains that Islamists lack both the power and the unity to create a postcolonial world order; however, he argues that they could engineer enough disorder within their own countries, which could have a spillover effect over the western world.

Given the increase of Islamists’ existence in today’s world, individuals could join non-violent groups like the Muslim Brotherhood or violent groups like Al Qaeda. Previous research in this topic has often argued there are number of reasons for joining either these groups, either psychological factors (Fuctico, 2006; Brannan & Esler, 2001; Hudson, 1999) or the desire to provide social services (Trager et al, 2012) or by spreading propaganda through online platforms (Fuctico, 2006; O’Brien, 2007; Weimann, 2012).

Islamists’ Use of Propaganda

Propaganda is the art of communicating certain messages to achieve an outcome that is desired by the sender. Jowett and O’Donnell (2006) define the term propaganda as “the deliberate, systematic attempt to shape perceptions, manipulate cognitions, and direct behavior to achieve a response that further the desired intent of the propagandist.” O’Donnell and June Kable (1982) define persuasion as “a complex, continuing, interactive process in which a sender and a receiver are linked by symbols, verbal and nonverbal, through which the persuader attempts to influence the persuadee to adopt a change in a given attitude or behavior because the persuadee has had perceptions enlarged or changed” (p.9).

An influential example of online Islamists' propaganda is illustrated in a report published by the Europol, in which the authors observe that al-Qaeda has publicly used online tools in order to target potentials (Europol, 2012). The group launched a magazine written in English language called *Inspire*. This magazine was created in order to inspire potential jihadists (Weimann, 2012). *Inspire* magazine is a vital tool for recruiting jihadists. There is a section of this magazine that is titled "open source jihad" which provides tips on how jihadists should prepare themselves in order to attack other people (Weimann, 2012).

Another online tool Islamists groups use to target potential members is the YouTube website, which has been widely criticized for distributing not only non-violent Islamists' but also jihadists' propaganda. Hizb ul-Tahrir, a hard line Islamic group, was among the first groups that began posting professionally produced videos on the website in 2007 (O'Brien, 2007). Other forms of social network interactions take place through Yahoo, Pal talk and other platforms that offer the opportunity for terrorists to hide their identity (Kohlmann, 2006).

As explained earlier, social networking sites are popular among youth, which makes these sites useful tools for Islamists to attract potential members (Weimann, 2010). The United Nations on Drugs and Crime (UNODC) published a report in 2012 explaining the use of the Internet as an effective source for spreading propaganda by Islamists in general. According to the report, terrorists' propaganda takes place through different media platforms; however, they mainly depend on multimedia communications to provide justification or promote terrorist activities. Ciovacco (2009) and other scholars explain that al-Qaeda's video releases have more impact on people compared to other online media. The group tends to offer strategic directions through their online platforms, in order to prompt specific action by providing guidance in their media releases (Gendron, 2007; Fuctico, 2006).

Purpose of the Study

Virtual communities are spreading all over the world, especially among young people, who are considered Islamist groups' main target audience. Sageman (2004) argues that the Internet provides the opportunity for vulnerable minds to converse, which could facilitate many activities, some of them beneficial. Others could be dangerous, for example, carrying out violence (Weimann, 2012). Europol (2012) concludes that the Internet forums have managed to attract a target audience who has no "offline" terrorism links.

The question that guides this study is how individuals react to messages conveyed through online media platforms. The current literature does not address the influence these messages have on people who do not belong to the group. Therefore, there is little understanding of the effect online media platforms could play in shaping a group's image in front of out-group members.

This thesis looks at individuals from the perspective of Social Identity Theory. The theory explains that people's identity is based on their own group membership. Based on this definition, people are categorized into either in-groups, i.e. people who are inside a group; or out-groups, i.e. those people who are outside the group. Tajfel et al, (2004) explain that there is a tension between both types of people, which leads to in-group favoritism over the outsiders. The majority of participants used in this study are both Americans and non-Muslims, which makes them outsiders to what a typical Islamists' background would be. Therefore, in this study, the researcher looks at how out-group members react to Islamists' online persuasive messages by measuring the change in participants' attitude and calculating the information seeking behavior. That is because, as is explained in the literature review, attitudes change behavior, therefore, a change in attitude after receiving the messages, could lead to a change in behavior. The type of behavior depends on whether the attitude was favorable or less favorable. In order to understand whether out-group members would become more interested in a group, the

researcher tests whether the information will lead to change in attitude towards the group, which could also lead to information seeking behavior

According to the selective perception theory, in-group favoritism leads people to selectively perceive and interpret information that strengthens their attitudes towards a group. However, information could appeal to individuals and lead to a more favorable attitude change regardless of their pre-existing attitudes towards a group. Therefore, in this study, the researcher argues that despite group bias, information received by an out-group could lead to a more favorable attitude towards the other group, which could eventually lead to more information seeking behavior concerning the other group. This argument challenges the basis of the Social Identity Theory and Selective Perception Theory. To elaborate more, there are more foreign fighters involved in conflict areas like Syria. These foreign fighters are out-group members who have little to do with the conflict. Despite that, we have seen a rise in their numbers. Recently, western fighters have been documented fighting with jihadists in Syria. The International Center for the Study of Radicalization and Political Violence reports that most of the western fighters in Syria are affiliated with the terrorists groups Jabhat al-Nusrah or the Islamic State of Iraq and Sham (ISIS). The report concludes that a large number of western foreign fighters use social media namely Facebook and Twitter as sources of "information" and "inspiration." This builds up the case that information seeking is a significant step to joining groups.

Therefore, even though Social Identity Theory explains that people with a similar background would be more likely to join the same groups, one could argue that in today's world people with similar psychological needs are more likely to join each other even if they do not have the same background. Social ties have been viewed as a major influence on social behavior (Singer et al., 2006). An individual who interacts with a group is more likely to join the group, due to the empathy and social ties created through this interaction (Goette et al., 2010).

A 3 by 3-multifactorial experiment with the between subjects factors of message type and pre-existing attitudes towards Islamists was designed to examine how people attitudes and information seeking behavior change after they receive messages that promote Islamists. The messages were created based on research conducted by Gendron (2007) and Ciovacco (2009), who conducted textual analyses of messages that circulate among Islamists. In this thesis, the researcher categorized these themes as either action justification (i.e. messages that justify Islamists actions) or group identification (i.e. messages that supports the existence of the group). The attitude of participants-towards Islamists was measured prior to exposure to the messages. The attitude change of participants was measured after they received the messages.

The next chapter will explain in detail, the in-group messages that the out-group members received. The chapter will also elaborate on the theoretical framework of this thesis in terms of how people behave towards groups and how persuasive messages can affect the mechanism of social judgment.

Chapter 2: Literature Review

Young people under 30 constitute up to 60 percent of the Arab Muslim countries (Pew, 2011). Like their counterparts around the world, many of these youth embrace new media in order to be informed and to network. In a study, conducted by the Northwestern University in Qatar (2013), researchers found that 47% of the citizens in the Arab world think it is safe to express political opinions on the Internet. The percentage is an indicator of the significance of the Internet as a political tool. The Internet is also a tool for institutions and organizations to persuade people using various traditional and/or modern techniques. The theories discussed in this section, explain why some of these young people find “online” Islamists’ messages attractive. The argument built in this study, is an attempt to expand on the literature about manipulation of emotions to drive people, through a social identity context, towards the targeted results by these organizations. The goal is to understand whether in-group messages will affect out-group members’ attitudes and drive them to seek more information about the group. This study looks at attitudinal change using social identity theory frameworks.

Attitude and Attitude Change

Attitudes are defined as an evaluation of an individual’s beliefs and behaviors (McGuire et al, 1985, p.233). An individual’s attitude could be positive, negative or even neutral towards other people. According to the tripartite theory, attitudes could be based on: cognitions or beliefs, affections or feelings and actions or behavior (Breckler, 1984; Rosenberg & Hovland 1960; Zanna & Rempel, 1988). Fazio (1990) proposed the MODE model that describes the multiple processes an individual attitude goes through that eventually affects “behavior” and “judgments”. The word MODE stands for Motivation and Opportunity as Determinants. This model looks at attitude development as an unfolding process that is a response to the contextual information and motivation surrounding the individual rather than looking at attitudes as an independent representation in the explicit and implicit memory.

According to Fazio, attitudes are the extent to which individuals associate an object, person, and/or issue to an emotion whether negative or positive. Therefore, strong attitudes could be accessed rapidly as they become more salient in the memory. These attitudes push individuals' behavior (Fazio, 1990). Individuals would behave depending on how they feel towards this particular issue. According to this model, attitudes could be accessed either "spontaneously" or "deliberately." Attitudes that are recalled spontaneously are the ones that are an outcome of an "immediate" response to the subject in hand. Whereas, attitudes that are accessed deliberately are ones that are "consciously" formed after thoughts has been exerted on the subject in hand.

Fazio & Schwen (1999) explain that when people are not motivated to "deliberate" over an assignment, their attitudes become "spontaneous" and thus they are likely to respond without any conscious thought put into the process. Consequently, the behavior is either direct as "the activated evaluation forms an immediate appraisal" or indirect which then form "biases in perceptions of the qualities of the object" (Fazio & Olson, 2013). In contrast, if an individual is motivated to deliberate over a task, they think about the costs and benefits associated with their behavior.

Fazio's MODE model is a modern development to the theoretical literature that has been written about attitudes. Attitudes of people play a significant role in reasoning whether to belong to a group or not. A change in attitude could affect an individuals' decision leading to change. Also people have the tendency to change their attitudes constantly for various reasons. These shifts could create an inconsistency within individuals making them feel uncomfortable. This idea is discussed by the cognitive dissonance theory proposed by Festinger (1957). Festinger said that an individual could hold multiple attitudes towards the same issue or object, which mean people could adjust their attitudes depending on the motivation.

For example, until recently Egypt had numerous Islamists' television channels and a newspaper that portrayed the Islamists' viewpoint. The Freedom and Justice Party, a

Muslim Brotherhood political wing, published a newspaper that shares the name of the party (Ikhwanweb, 2003). The paper described itself as one for all Egyptians; however, the editorials covered the news from the brotherhood's perspective. Festinger proposes that people would favor information that is aligned with their own beliefs to strengthen their attitudes and justify their behavior. Therefore, using the previous example, one could argue that any in-group member is more likely to consume the media, in this case the newspaper published by the Freedom and Justice party, that portrays their viewpoint, rather than watching liberal mainstream media. Not only to strengthen their ideologies but also to avoid cognitive dissonance.

Fiske and Talyot (1991) explain that these inconsistent cognitions create arousal that makes an individual feel uncomfortable. The cognitive dissonance theory helps us understand how attitude plays a role in social identity theory. In-group members decide to selectively interpret information that is aligned with their beliefs to stay within the group.

Social Identity and Personal Identity

Social identity theory is based on the assumption that groups are in conflict with each other; therefore, individuals self-categorize themselves. In one of the theory's definitions, it is assumed that groups compete with each other in order to survive and gain materialistic rewards that will help them; they will develop stereotypes against others to justify their competition (Jost et al., 2004). Hence, people who identify with a social "in group" tend to favor themselves against the "out group" (Adelman & Chapman, 2011). This has been tested in various studies of the "minimal group paradigm" (Billig & Tajfel, 1973; Tajfel et al., 1971). Turner and his colleagues conclude that in-group favoritism could not happen without in-group identification.

In this thesis, the researcher looks at a group as a number of people who share a common identity and belong to the same crowd (Turner et al, 1987, 20). These individuals look at themselves and other members of their group as "in-group". On the other hand, anyone who is not a member of that group is looked at as "out-group". This

concept is discussed in detail later. The importance of this theory is to help us understand the concept of "social categorization": why people join certain groups and how they justify actions made by their group. Social categorization argues that individuals look to themselves as members of a group rather than just as "isolated individuals" (Turner, 1987). Groups tend to develop a "shared identity." This helps individuals to enhance their self-esteem as they compare people within their own in-group to those who are members of out-groups (Stets & Burke, 2000).

Self-categorization helps us to understand why people justify the actions of their group, regardless of how useful/harmful they are. Turner et al., used the term "depersonalization" to describe individuals who perceive themselves as a representation of their social groups. Turner explains further that depersonalization is equivalent to changes in "self-attitudes" which could be comparable to "dissonance reduction process." Individuals not only identify with groups but also justify the groups' behavior (Turner et al, 1987 & Turner et al, 1984). In one experiment, Turner found that there was a direct proportional relation between attraction to join a group and the low social status of that group.

Social identity is composed of three key factors: cognitive, emotional and evaluative (Tajfel, 1982). The cognitive aspect of the theory is to understand the process of categorizing people. For example, individuals would look to themselves as belonging to Islam, male, Middle Eastern, short etc. The emotional component is how our identity within a group appeals to us. While the evaluative aspect plays a role as humans compare themselves to others (Adelman & Chapman, 2011).

A sub theory of social identity theory (Adelman & Chapman; 2011), "uncertainty-identity theory," proposes that people are motivated to join groups in order to reduce "uncertainties" (Hogg, 2007, 2008, 2011). Uncertainty is not necessarily a negative emotion. It could be positive; as the authors note, people travel and gain more experience because of uncertainty. However, a large influx of uncertainty could be harmful. Hogg's

research has shown that one way individuals attempt to reverse uncertainty is by joining a group that is "important and self-relevant." By identifying with this group, individuals turn to the in-group for guidance and adapting groups' norms. Therefore, the uncertainty lessens. This may also lead individuals to act on the group's behalf.

Research has found that those who belong to disadvantaged in-groups tend to justify and legitimize their behavior more than others (Burkley & Blanton, 2005). Subsequently, this leads to in-group favoritism over out-group, hence discrimination against the out-group, which eventually leads to unjust competition with the out-group (Tajfel, Turner; 2004). Tajfel and Turner (2004) explain further that within a competitive atmosphere, whoever becomes the losing group, becomes hostile to the out-group. This is because the losing group has been both deprived of the "reward" or the outcome they were looking for and also because their relationship with the out-group becomes "conflictual" (Tajfel, Turner; 2004). Therefore, the in-group rationalizes their behaviors and negative stereotypes about the out-group (Tajfel, 1981).

Belonging to a group creates a sense of likeness. Individuals could dress alike. But it is vital to understand that the significance of aligning with a group is also "action on behalf of the group" (Sturmer and Simon, 2004). That is because this alliance then becomes the "motivating" drive for these individuals to participate in activities. Adelman et al., (2009) conducted a study in Israel to understand the uncertainty and suicide bombing among Palestinians (Adelman & Chapman, 2011). The findings show that Palestinian Muslims who felt uncertain about the future of the political situation and relied on the importance of their national social identity were more likely to support political violence. Palestinian Muslims who felt strongly about their Palestinian identity, but were less uncertain about the future did not support suicide bombings. Therefore, what one can conclude is that social identities play a significant role in the intergroup relations, which then lead to intergroup conflicts.

Personal Identity Effect on Intergroup Relations

People join groups to interact and become interdependent in a way that satisfies their needs and goals. They influence each other and become “a group” (Cartwright & Zander, 1968). Groups are identified as a number of persons who are interactively linked. They could be two or more persons (Biddle, 1979, 233). Groups often attract people who share similar beliefs (Feld et al., 1982). Moreover, groups’ functionality tends to attract members who behave in the same way (Moreland, 1987). People tend to join groups because it enhances both their self and social needs within a group context (Bettencourt et al, 2006, p. 196). Individuals who join a group are aware of their roles within the groups. Hence, they tend to be aware of what roles and actions they should take to be satisfied (Bettencourt & Sheldon, 2001). When it comes to Islamists’ messages influence on people, it has been argued that the power of these messages comes as a result of an identity that unites Muslims in opposition to western colonization or modernity (Maalouf, 2000).

Postmes et al., (2006) draws an example of how an Islamic fundamentalist’s perception of the Arabs conflict with Israel and America has its influence on the fundamentalist’s behavior. In this context, the researchers argue that Islamists respond not only because of their social identity but also because of their personal identity. Their personal identity will drive their social identity to react in a certain manner (p.224). Postmes et al., argument implies that personal identities can affect how a social identity is shaped, thus, a group is not necessarily the sole controller of an individual but it could also be the individual who is controlling the group. That is social identity and personal identity are connected to each other. Therefore, not only can a group influence an individual but vice versa (Postmes et al., 2006, p. 216).

According to Snyder et al (1998), individuals tend to join groups based on six motives: ego protection, altruistic and humanitarian values, career related benefits, social relationships, self-understanding and ego enhancement. Furthermore, Snyder et al.,

explain people's tendency to join groups based on their "individual motivational concerns." This means that people join groups in order to satisfy one or more of the six motivations. This argument explains why group identity messages could be more effective with some individuals than others or why people join different groups based on their identity messages only.

Deaux et al (1999), identify seven functions of social identification that could serve an individual: self-insight and understanding, downward social comparison, collective self-esteem, in group cooperation, intergroup comparison and competition, social interaction, and romantic involvement. Messages that appeal to group identity, invite individuals with similar backgrounds to join specific groups (Deaux et al., 1998). Creating "group loyalty" (Brewer & Silver, 1997).

As explained earlier, individuals are willing to "pay costs, or sacrifice personal benefits on behalf of the group as a whole." Hence, individuals not only identify with the group but could take on their agenda and maintain a certain attitude towards the out group or behavior. Religious groups are good examples of how social identity can affect a person's identity. The content expressed in religion, and that is used by religious groups, not only informs people but also regulates their lives. Thus it creates a set of beliefs and norms that influence an individual (Postmes et al., 2006).

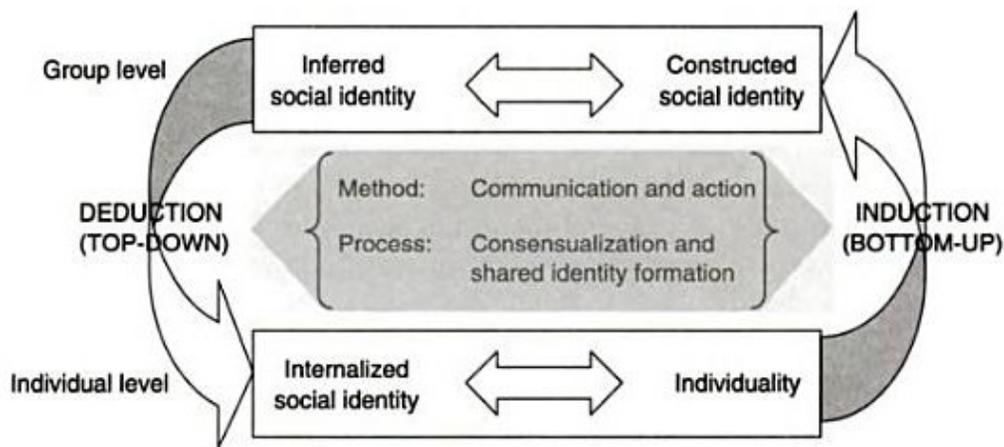


Figure 2.1. The interactive model of Social Identity format. This figure illustrates Postmes et al., (2006) argument on how social groups exchange information.

The above figure illustrates the argument that people take note of social group leaders, then exchange information with other group members on the individual level. Later, the interpretation of these actions is adopted by the individuals to enable them to be part of the group-whose leaders influenced their behavior.

The above figure illustrates what the Islamic scholar Maalouf has written. The norms of small groups bolster those of the bigger groups. The induction and deduction process explains how personal identities could influence social identity and lead to a change in a social group's ideologies.

An example of Maalouf's thoughts, Baray et al (2005), explains the interaction between social and personal identities in a research based on the *Turkish Nationalist Action Party*, which is a right-wing party with an Islamic and nationalist agenda. In their research, they conclude that the party provides an ideology for its members that guide their lifestyles. The party regulates the members' social interactions within the group and how to look at the out-group. The researchers' findings explain that within this party, the personal identities of the individuals and the social identities are more interrelated. Therefore, the members are increasingly willing to be dictated by the group and adopt the same group's ideology.

The conclusion one could determine from the above literature is that both social and personal identities are two constructs that cannot be studied independently (Postmes et al., 2006).

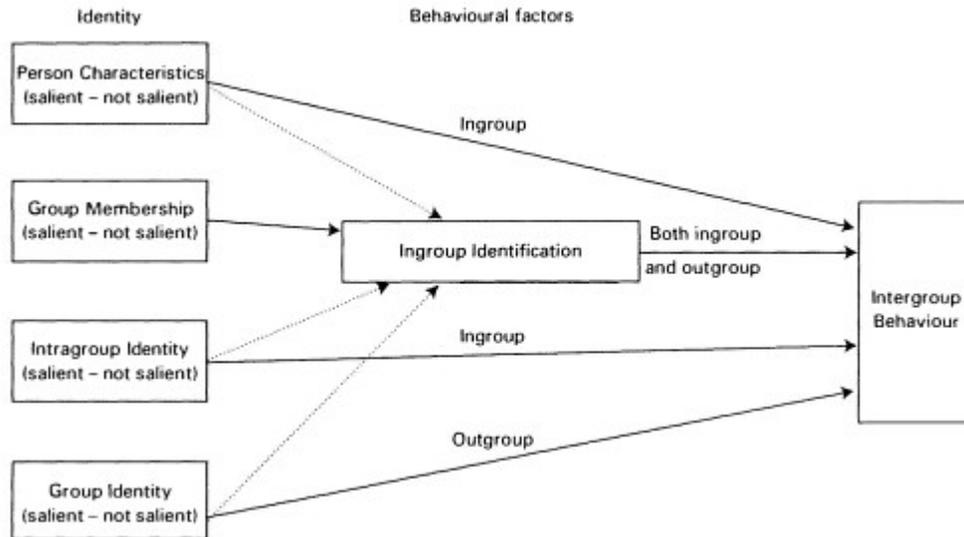


Figure 2.2. The figure shows the intergroup behavior explained by Worchel et al., (2000). The behavior is a result of the types of identity.

Worchel et al., (2000) offers the above model in Figure 2.2 They propose that personal identity has four dimensions, rather than two. These dimensions are: Personal characteristics, group membership, intragroup identity, and group identity. Each of these dimensions motivates behavior whether in-group favoritism or out-group devaluation. Salience is defined as the conspicuous feature of each dimension. The authors argue that these dimensions could be both salient and non salient; yet leading to the same results.

There are various factors that affect individuals' biased behavior towards the in-group or the out-group: personality (Levinson and Stanford; 1950), self-esteem (Crocker and Luhtanen; 1990), need for affiliation (Wachtler and Wright; 1976), cognitive complexity (Harvey et al., 1961). Worchel et al., explain that personal characteristics are often mistaken to be an individualistic characteristic; however, the significance of these personal characteristics significance are illustrated within the impact group members have on groups. Therefore, Worchel et al., suggests that some personal characteristics “influence” in-group identification, while others characteristics could be directly influential on the intergroup behavior.

The second dimension is group membership. Members of groups not only pay attention to the in-group but also to the out-group, in order to be able to draw boundaries of this group. Worchel et al., argues that while they agree with the social identity theory, individuals do not necessarily categorize social groups only. Worchel et al., also explains that individuals aim at enhancing the in-group identification by focusing on devaluating the out-group. Therefore, one could argue that people not only join social groups because they want to belong but also due to their disagreement with the out-group members which drives them to the group they join.

The third characteristic is the “intragroup identity.” This dimension includes the individual’s role within the group itself. Intragroup identity studies the role the individual plays in the group. Previous research, cited earlier, argues that group members become increasingly aligned with a group, the more it become a low status group. However, these same individuals become more “self concerned” when they themselves become in a “low-status position” within the group (Worchel et al., 2000). Therefore, the individuals’ behavior has an influence on the in-group identification and the intergroup behavior.

Lastly, the authors argue that the group identity dimension is where the groups become significant to the individual’s identity. Individuals use the group to enhance their self-image. However, the important factor, the authors explain, is that the group itself is developing its own “image.” This could create a tension between the in-group members collectively. However, the significance of this stage is how the groups interact with the out-group. For example, the current tension between al Qaeda central and its affiliates over how to deal with Syria (Branco, 2014).

Selective Perception and the Effect on Attitude Strengthening

Studies have shown that people who hold strong opinions on a complicated social issue are more likely to view any material relevant to this issue in a “biased manner” (Lord et al, 1979). Audiences respond to media messages in a variety of ways. Vallone et al., (1985) explain that people have biased perceptions of how the media reports on

stories that are vital to them. The concept of hostile media transpired from their study on understanding how the media covered the Beirut massacre. To effectively persuade the audiences with the message, it requires that the audience not only receive the message but also to “acquiesce” it (Olson and Zanna, 1993).

There are macro models that explain audiences' responses; the Elaboration Likelihood Model (ELM) (Petty & Cacioppo, 1986) and the Heuristic-Systematic Model (HSM) (Chaiken et al, 1989). ELM is a dual framework theory that organizes and categorizes the understanding of the process of persuasive communications (Petty&Cacioppo, 1986, p.125). The theory is based on the idea that attitudes are the driving force of behavior. The key issue is the elaboration likelihood continuum, which is how people assess an issue or a position (Petty et al., 1986). There are two routes for messages to persuade a recipient: the central and the peripheral. The more motivated the receiver is, the more likely they are to assess new information with the knowledge they already possess and come to a conclusion that they have thought about. That is known as the central route, which could result in either a favorable or unfavorable, not necessarily biased, attitude change. A peripheral route is defined as one that the elaboration is low and the information does not require issue assessment. The attitude change is weak and temporary. Petty et al., explain that attitudes formed through the central route will need a high effort to change them compared to those created through the peripheral route.

The ELM holds another significant factor, which is how individuals could process information in a biased manner even if they have no preferred judgment (Petty et al., in press). Lord et al., (1979) explain that some people might have biased information about other people, which makes their ability to judge the others objectively compromised. Therefore, people with biased information will see others' flaws and their own merits. However, Petty et al., argues that if a recipient has stored biased information that does not mean the recipient will make biased judgments, even though biased information could lead to biased information processing.

Similar to the ELM model, the Heuristic-Systematic Model (HSM) categorizes information processing either systematic or heuristic (Chaiken et al., 1989, p.195). People will engage in a systematic processing of the persuasive message only if they are motivated to make judgments based on elaboration. However, if recipients are not motivated enough to engage in thinking, they will use heuristic processing of information which is a technique that is used to process the persuasive messages using heuristic cues like the source, the experts, the length of the message etc. Chaiken et al., explain that people who engage in heuristic processing do not differentiate between weak and strong arguments; they focus mainly on the attractiveness of the source. In other words, people are engaged in superficial processing to be able to make decisions. The systematic and heuristic processes can act simultaneously.

The willingness to receive the message depends on numerous factors: motivation, sender identity, the strength of the message, the frequency of repeating the message etc. (Chaiken and Stangor, 1987; Petty et al., 1997). Pre-existing attitudes of people towards Islamists could be a result of negative emotions that are ignited from fear and anxiety. These negative emotions could lead people to interpret messages through heuristics cues. According to a study conducted by Gallup titled, *Islamophobia: Understanding Anti-Muslim Sentiment in the West*, the notion of Islamophobia increased after 9/11, even though it existed before that. A study by the Center for American Progress (2011) speculates that the rise in Islamophobia within the American public is driven “misinformed” experts in the mainstream press. Therefore, many people do not distinguish between Muslims and Islamists but rather look to them as followers of Islam. In this thesis, the researcher created situations, to fit the stereotypes of Islamists. The stereotypes reflect the physical appearances and behavior of Muslims; however, these stereotypical characteristics are seen as Islamists. The NY Times reported (2010) that many Muslims in America complain about their coworkers, who describe them as terrorists or even name call them Osama. In some cases, Muslim employees are

prevented from wearing headscarves or even taking prayers break. This kind of behaviors shows the inability to distinguish between Islamists and Muslims. Consequently some out-group members exhibit prejudices against Muslims based on their negative stereotypes. According to a 2010 Gallup survey, around 43% Americans say they feel “a little” prejudice toward Muslims. According to the Equal Employment Opportunity Commission, Muslims filed more complaints in 2009 than in the year following September 11, 2001.

The willingness to interpret these messages through heuristics or systematic processes depends on: accuracy motivation, trying to maintain existing attitudes, and trying to satisfy personal goals (Chaiken et al., 1989). One of the definitions of this procedure is to look at selective perception as the process of understanding the information channeled through the media in a manner that strengthens existing attitudes. This process is often identified as “cognitive bias,” individuals' judgment is distorted depending on certain motivations and biases (Pronin, 2006).

Selective perception consists of selective exposure, selective attention and selective interpretation. In the case of Islamists, one could argue that members of these groups favor information that only consistent with their attitudes and behaviors. Frey (1986) explains that when people have made their choices and are already committed to a group publicly, they selectively seek exposure to information that strengthens their attitudes. Inconsistency between beliefs and behaviors puts an individual in an uncomfortable state called “dissonance.”

Therefore, selective exposure becomes a cognitive motivation to increase consistency rather than dissonance. Selective exposure is defined as a “decision consistent information is *a priori* evaluated more positively than inconsistent information and thus is systematically preferred in actual information search”(Fischer et al., 2011). This explains why people select information that could strengthen their attitudes and beliefs in order to justify their actions and/or *in groups* attack on the *out groups*.

Individuals actively select and interpret information about their in-group members in order to justify their attack on out-group behavior.

Information processing research, Entman (2004) writes, has shown that people have “cognitive structures called schemas that organize their way of thinking”. That said, people have different “attitudes”, “beliefs”, “perceptions”, “values” and also “preferences” that affect their ideas and helps them select different materials from media, also known as selective reception (Entman, 2004 taken from Rokeach, 1973). The materials selected by the audience are aligned with their schemas, thus, strengthening their perceptions towards a specific ideology. Therefore, one could argue that people who are most likely affected by Islamists’ messages are those that have schemas aligned with messages they receive.

Russo and Chaxel (2010) conducted an experiment to understand the indirect effect persuasive messages have on people’s behavior. They argue that persuasive messages have both direct and indirect influences on individuals. The influence could be both conscious and non-conscious. The direct effect is a result of the persuasive message. The indirect effect is one that is a result of the “factual information” used in the persuasive message. This factual information enhances a certain behavior. Russo and Chaxel explain that the factual information creates “additional support” within the persuasive message in order to encourage the intended behavior. Islamists use Quranic verses to support the messages they send to their target audience. That is because to Muslims, the Quran is a book based on facts sent by God. Russo and Chaxel conclude that people are unaware of the indirect influence of these messages, even though they could be aware of the direct influences.

Emotions’ Role in Taking Political Decisions

Emotions are significant factors in people’s decision making. Emotions could be detected using “body posture, facial expression, skin color change, diaphoresis and symbolic communications” (Victoroff, 2011). Emotions are sensitive factors in political

environments; they could be subject to constant change that leads to different decisions (Marcus et al., 2000). However, with manipulation of people's emotions, an impulsive outcome could take place. Emotion is studied to understand why people learn new information, join certain groups, leave groups and take life-changing decisions. The most studied effects of emotions on decision-making are concerned with fear and anxiety. Fear and anxiety affects people by narrowing down their selective perception.

Emotions influence an individual's "selective attention, perception, and categorization" (Keltner & Lerner, 2001). An appraisal tendency framework is used to account for the effects emotions have on judgment (Han et al., 2007). As early as the 1950s, Magda Arnold worked on this theory. She concluded that people apply a cognitive process into the inputs [stimuli] they receive, which is then transformed into an emotion. Richard Lazarus expanded on the theory. The idea is that individuals are exposed to a subjective experience in which they could feel either positive or negative emotions (Ellsworth & Scherer, 2001). However, the theory was inadequate to explain various experimental findings. Instead, theorists have concluded that emotions involve "complex interplay between cortical and subcortical brain systems and between subconscious/automatic and conscious/ruminative processing" (Victoroff, 2011, p.188). Therefore, an emotional process could be an active or passive process.

Victoroff (2011), points out multiple factors that lead to certain emotions within an individual. The environment that an individual grew up in plays a significant role. A person's age has its factors on his/her emotions.-This is why many of the Islamists' organizations target young individuals to join them. The message of excitement is usually more appealing to a college freshman than to a 40 year old man.

Another factor, Victoroff explains, is how environment plays a significant role in a person's attitude towards a group. He draws an example of how a Yemeni man constantly exposed to violence within his country [environment] will be more likely, whether consciously and/or unconsciously, to favor joining radical groups due to the violence

stored in his subconscious. He argues that after several weeks, or even decades, the experience will invoke emotions that could eventually be manipulated [Islamists persuasive messages], to reach a desired behavior. Neurophysiological studies explains that the two subsystems in a human's brain. Each of the two systems is responsible for an emotional response that is distinctive from the other (Eccles 1989; Fonberg 1986). One of the systems generates the excitement and enthusiastic emotion. The other generates the anxiety, fear and other negative emotions. Each of these sides has its effect on behavior (Marcus & Mackuen; 1993).

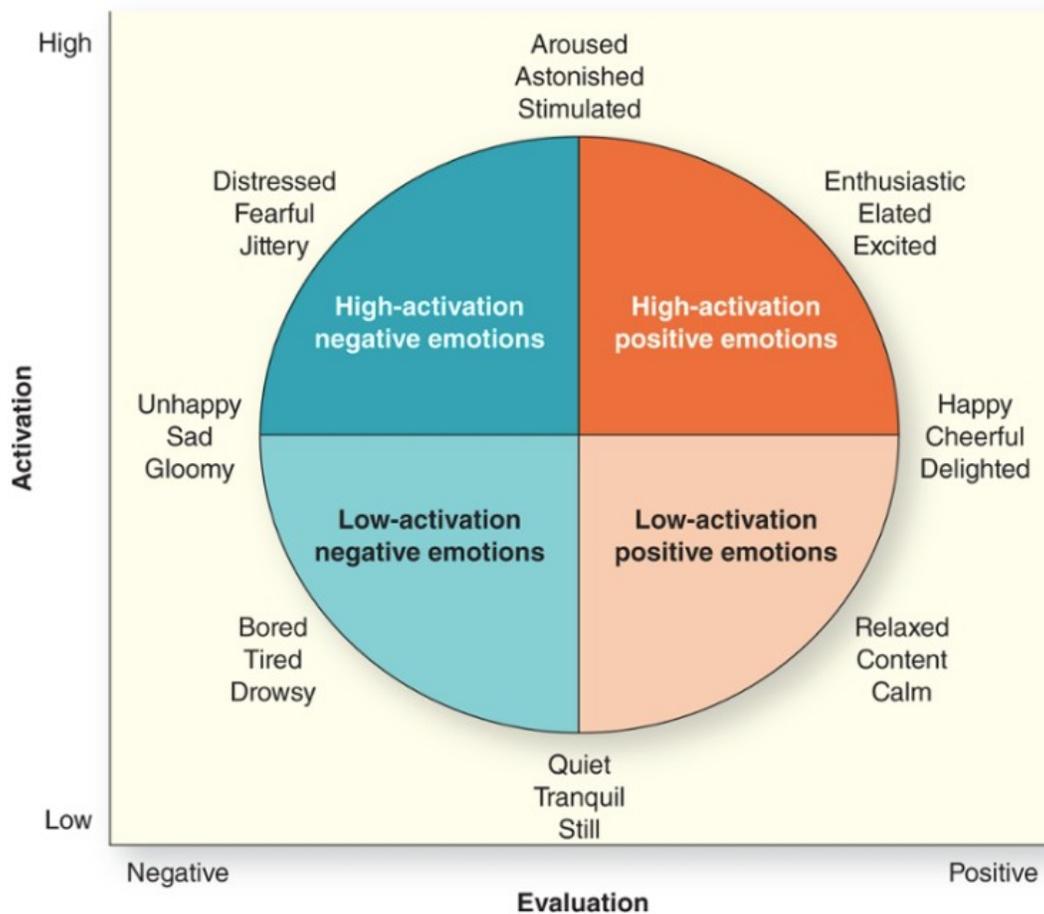


Figure 2.3. This figure above describes the type of emotions an individual experience. It is known as the Circumplex Model of Emotions. Figure adapted from Larsen, R. J., & Diener, E. (1992). Picture taken from: Organizational Behavior:

Emerging Knowledge, Global Reality.

The figure is divided into four categories: High /low negative activation emotions and High/low positive activation emotions. Based on Victoroff's explanation, one could argue that an individual, who went through a negative experience and comes from a background that bolsters negative emotions, is more likely to take an action to avoid living in a dichotomy. The individual's behavior could range from joining group(s) and identifying with them, to taking other violent or non-violent actions.

The Effect of Emotions on Attitude Change and Behavior

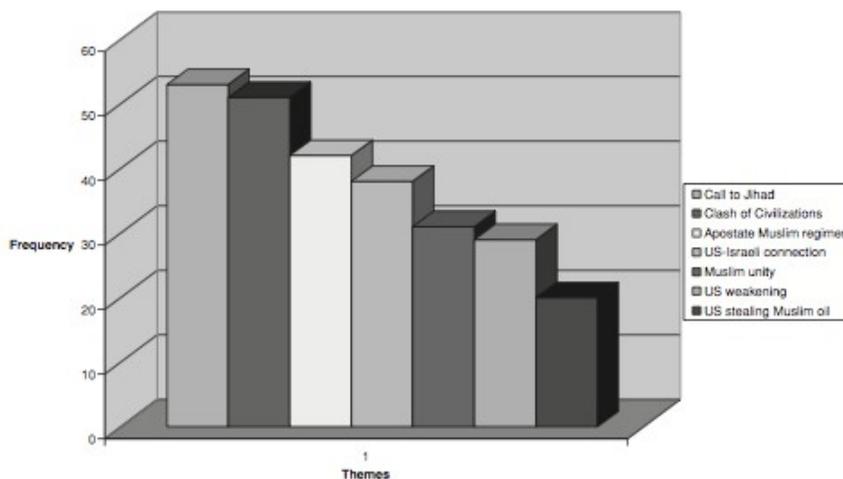
According to the research described above, information received from a stimulus is directly routed to an individual's emotional center, which is centered in the brain. When information is received, an individual will unconsciously feel emotions regarding this information. Gray (1987a, 1987b, 1994) has identified two systems known as the "flight/fight" and the "Behavioral Inhibition System" (BIS) (Marcus et al., 1998). The systems are sensitive and fast to process the information. The BIS have the capacity to learn and influence an individual's cognition thus behavior. The system works to modify what has already being learned and led to behavior (Marcus et al., 1998). Information newly acquired is in constant comparison within the individual's "surveillance system". The system detects new information and based on that an individual reacts (Ellsworth & Scherer, 2003). As explained earlier, new information could lead to cognitive dissonance. In other cases it could strengthen a person's beliefs. In other words, emotions affect people's perceptions about an idea or a group or an event. This takes place as messages are formulated to ignite emotions within an individual that leads to behavior.

According to the concept of appraisal, people assess information based on whether this information are either "rewarding" or "punishing" (Rolls, 2000). Given that a stimulus is what incites a certain emotions, the work by Gray (1975, 1987) and Rolls (1986a; 1986b; 1990) explains that there must be a "reinforcement" to lead to a response (Rolls, 2000). The reinforcement could be "unlearned" for example, a person previously

subjected to an electrical shock would be afraid to go closer to any electricity.

Other reinforce could be ones that already known because of their association with the unlearned reinforces for example the feeling after the electrical shock, Rolls (2000) refer to them as “secondary reinforces.” A positive reinforcer is a rewarding one and a negative reinforcer is a punishing one. Emotions are extracted depending on whether there is a tendency to react with a behavior. Rolls (2000) explain that people with a positive reinforcer could react with anger because they can take behavioral steps. Meanwhile, people with negative reinforcers could react with sadness because they have passive behavior. This does not necessary mean that people will be either angry or sad. There are other emotions that people could feel. For example, a negative reinforcer could react with anger, terror etc.

Rolls argue that people are motivated to take actions through the reward and punishment system in their brains. The messages run by Islamists always portray a reward for their members. Islamists, specifically, use messages in a manipulative and deceptive way in order to push for actions that could lead to their desired outcomes. This strategy is evident with Islamists use of the Quran- Islam’s holy book and the main source for Islamic jurisprudence, in order to bolster their behavior against their enemies. This has been validated as an effective technique to recruit new members.



In Figure 2.4. Ciovacco (2009) summarizes themes that appear in Islamists' messages.

Figure taken from: The contours of Al Qaeda's media strategy.

Generally, the messages justify global jihad, using verses from the Quran whilst providing Islamic interpretations from scholars of earlier centuries (Ciovacco, 2009; Gendron, 2007). Islamists provide rewards, for their members, in the form of promises to go to paradise. They do so by using excerpts from the Quran interpreted in a manner that serves their intentions. Gendron (2007) explains that Al Qaeda propaganda has two objectives. The primary one is the religious element, which focuses mainly on implementing the Islam's prophet teachings and accepting Jihad as a form of "defense" of Muslim lands against the non-Muslims. In this case, Islamists appeal to "group identity" messages, these are messages that justify the existence of these groups by identifying with each other. The second objective is made up of political elements which are: restoring the Islamic caliphate by removing the "dictators" in the Muslim countries, ending the "international influence" on Muslim countries, military attacks against non-Muslim occupiers specifically the USA, eliminating Israel and finally "avenging oppression" of the Muslim states by their enemies. These types of messages come in the form of "Action justification" these are messages that justify this behavior. In both group identity and action justification, the language used appeals to a certain level of sympathy, which affects the attitudes of an individual.

Persuasive messages: Group Identification versus Action Justification

This study uses the term group identity messages to describe those messages that enhance the individual's feeling of belonging within a group. These are messages that justify the existence of the group. In this study, the group used is an Islamist one, which sends messages that use an Islamic background in order to interact with potential or possibly to strengthen the attitudes of existing, sympathizers. The argument here is that even if an individual is a Muslim, they do not necessarily support Islamists. An example of this is the presence of conservative Muslims who presumably have pro-Islamists' attitudes and liberal Muslims who possess anti-Islamists' attitudes.

Meanwhile, there are non-Muslims who are attracted to the suicidal actions of jihadists like mass shooting because they share the same motivations, whether its depression, anxiety, professional failure, or marital strife (Lankford, 2013).

Chen and Li (2009) conducted an experiment to understand whether people will be influenced by their group's identity. The results found that group identity increases the bond between an individual and the group. Thus individuals will be willing to adjust their behavior to match the in-group. This means that people tend to join groups to build ties that could have an "affective weight" in their lives. These bonds are "emotional bonds" that have been lacking in the person's life before joining the group. They are significant because people feel a sense of belonging, which bolsters their self-esteem.

Action Justification messages are different. These messages aim to defend the group's behavior. Hence, there is a distinction between sympathizing with a group because of a shared identity and defending their action for a cause. An individual does not necessary share a cause with the group. For example, not all Muslims are keen on fighting Israel. Thus a message that justifies attacks on Israel does not necessarily have a similar effect on people as a message that asks for Muslims unity. Both group and action messages have a behavioral impact on the individual, as explained earlier. But the impact is different.

It is important to mention that all governments, institutions, interest groups, public policies use media to frame their messages, i.e. to present a selected version of their reality in order to result in a specific action (Cook, 1998; Hilgartner & Bosk, 1988). Entman (2004) specifies four functions for framing: 1) the promotion of a particular problem definition, 2) identifying causes, 3) moral judgment and 4) introducing remedies. Ciovacco (2009) concludes that Islamists media strategy "exploits" people's sensitivities by tailoring messages for specific audiences around the world. As explained by Entman; Islamists use frames that include Quranic and historical evidence to tailor a justification for their actions. This thesis is designed to examine the impact these messages have on

people. The researcher argues that out-group members have pre-existing knowledge about Islam that could be biased which leads them to have pre-existing attitudes about Islamists. However, depending on individuals' motivation, they could seek more information about Islamists and change their pre-existing attitudes to a favorable one by interacting with the Facebook group.

The Effect of Information on Attitude Change

Louis Thurstone (1928) wrote, "Attitudes can be measured." He explained that researchers could measure humans' feelings by creating situations self-reports measures. Information affects people's attitudes. Therefore, people who are exposed to information will have a reaction to the messages they receive. As discussed in earlier literature, previous research has shown that the level of message persuasion depends on numerous factors: the source, the message, the channel and the recipient.

H1) Participants exposed to Islamists messages will experience more attitude change about Islamists compared to participants who are not exposed to the messages

As explained in this study, people with pre-existing attitudes will selectively interpret and focus on information that strengthens their own attitudes. In this experiment, the researcher is testing whether participants with pre-existing pro/anti/neutral attitudes towards Islamists will become more favorable or unfavorable towards Islamists after they receive the messages. Based on the selective perception theory, the researcher predicts that people with both pro and anti pre-existing attitudes towards Islamists will biasedly interpret the messages to strengthen their own pre-existing attitudes. Participants with neutral attitudes will become more favorable towards Islamists because they do not have pre-existing biased attitude towards Islamists. Neutral attitude participants are more likely to be affected compared to those of the negative/positive attitudes. The messages provided in this study defend the stance of Islamists. Therefore, I predict that neutral attitude participants will selectively perceive information that creates a more favorable attitudes. Therefore I hypothesize:

H2a) Pro Islamists participants will have a favorable attitude change after exposure to the messages.

H2b) Neutral participants will become more favorable towards Islamists after exposure.

H2c) Anti-Islamists participants will have negative attitude change after exposure.

In this study, I assume that people with pre-existing attitudes towards Islamists possess knowledge about Islam. The exposure messages they will receive may not necessarily align with pre-existing information. Using the ELM and HSM, I argue that people with more information will have less attitude change. Therefore I hypothesize:

H3) People with better knowledge of Islamists issues and arguments are less likely to report attitude change compared to those with less knowledge.

A member of one group could conform or deviate from the group's behavior for multiple reasons. The study assumes that people who have pro-Islamists' attitudes will support the groups' identification messages and deviate from the action justification messages. According to the Social Identity Theory, participants will conform to avoid cognitive dissonance. Participants already have positive pre-existing attitudes towards Islamists, and group identification messages will bolster those positive attitudes. However, participants may not endorse the actions conducted by Islamists' because they do not necessary believe that these actions lead to fulfilling the group's vision. There are two reasons why people deviate from the groups they join: constructive conflict and destructive conflict (Thompson and Hickey, 2010). A constructive conflict is one that group members challenges the group in order to avoid adopting the groups' proposals, actions etc. A destructive conflict is one that led group members' to drift from the group because they do not view themselves as members who have "the best interest" for the group. Given that the participants already possess positive attitudes, the study assumes that they will distance themselves because they do not support Islamists' actions and want the best for the group. Therefore I hypothesize:

H4a) Pro-Islamists participants will have more favorable attitude change to group identification messages and less favorable attitude change to action justification messages.

Previous research has shown that people adjust their "perception of groups" based on their own interpersonal experiences with members of the groups. Based on self-categorization theory, researchers proposed that with more people interacting with others from the out-group, there is an increase in awareness of these groups' memberships. However, in this study, the researcher hypothesizes that neutral participants will respond more positively to action justification messages as they interact more with the messages and understand the reasons behind the existence of this group. Group identity messages do not provide participants with a clear understanding behind the groups' actions that means that there is still a knowledge gap for neutral attitude people. Nevertheless, understanding the reasons behind groups' actions does not mean that participants will support the group's existence. According to social identity theory, people interact with a group because of a shared vision. For a neutral attitude participant to have a more positive attitude towards the groups' identity, they must have a common background with the group that would bolster their willingness to support the groups' existence. Therefore I hypothesize:

H4b) Neutral Islamists participants will respond more favorable to action justification messages than to group identification messages.

Given both social identity theory and selective perception theory, participants who have anti-Islamists' attitudes will still have negative attitudes towards Islamists, regardless of receiving group identification and action justification messages. There are few exceptions to this generalization. Messages provided in this study are a positive portrayal of why Islamists' exist and a positive defense of their actions. Participants could use these messages to draw on the reasons of why they respond negatively to Islamists'. Therefore the study hypothesizes:

H4c) Anti Islamists participants will respond less favorably than pro Islamists and neutral Islamists to both group identification and action justification messages.

The method designed in this thesis aims to answer if participants' attitude change will lead them as out-group members to seek information about Islamists. As explained in the literature review, a change in the attitude will lead to a change in the behavior. The researcher set up two blogs, one for action justification and the other for group identification. Links to the blogs were posted in the Facebook statuses. At the end of the experiment, the researcher asked participants whether they sought further information about Islamists. Therefore;

RQ1) Will the participants become actively engaged, after exposure, in information seeking about Islamists through visiting blogs and other platforms?

The literature in this chapter explains how in-group members process information to strengthen their attitudes towards their groups. It also explains that attitude change is possible and a major influence on people's behavior. That said, an emotional message that is supported by identity or action justification could lead to a change in the attitude and information seeking behavior. The gap in the literature is how these messages affect out-group members rather in-group members. Lately, we have seen that out-group members join other groups through social media engagement, which means that we need to understand how these messages affect out-group members.

Chapter Three: Methodology

In the previous chapter, the literature review identified the significance of the group to an individual and vice versa. The chapter argued that people's attitude could change and they could interact with groups based on emotional messages they receive from groups. Two types of messages were identified: action justification and group identification messages. Both are messages that are found in Islamists' propaganda. This chapter describes the methodology used to test the impact of these types of messages on participants' attitudes and behavior.

The research problem this study is tackling is the influence of online persuasive messages on individuals. The aim is to measure the change in attitude of participants before and after receiving the persuasive messages. The attitude change will then be compared with participants' information seeking behavior to distinguish between the different effects these messages had on participants.

Research Design

This study was designed to examine the responses of people to Islamists' propaganda spread through social media. An experiment is a "prescribed set of conditions which permit measurements of the effects of a particular treatment" (Babbie, 2007, pp. 186-207). Therefore, this study adopted an experimental approach using a mixed 3 X 3 multivariate design, with the between subjects variable of the type of message (group identity messages, action justification messages, and a control group) and the within-subjects variable of pre-existing attitudes concerning Islamists (pro, anti, neutral). The control group in the experiment was not exposed to any of the messages. The dependent variables were (a) attitude change and (b) information seeking behavior. The rationale provided in the literature review, is that attitudes affect behavior; therefore a change in attitude of out-group members would lead to a change in behavior. The behavior here is measured through information seeking behavior. The independent variable was the existing attitude towards Islamists i.e. (a) pro-Islamists (b) anti-Islamists and (c) neutral.

Participants

Participants were between the ages of 20-40. There were over 700 participants who were recruited for this study. Only 323 participants completed the study. There were $N=182$ males and $N=141$ females. Participants who completed this study were either people who lived in the United States $N=215$, or others who lived outside $N=108$. Most of the participants from outside were located in South East Asia. There were 45 participants categorized as anti-Islamists, while 141 were categorized as neutral and 137 as pro-Islamists. There were 105 participants who took the action justification experiment in one day and 29 who took it over the course of six days. There were 107 participants who took the group identification experiment in one day and 30 who took it over the course of six days. There were 52 participants in the control group. All participants were recruited through Mturk - an online crowd sourcing website.

Procedures

Prior to collecting the sample, the researcher applied for Institutional Review Board (IRB) approval. Upon receiving IRB approval, the researcher selected eight American graduate students from S.I. Newhouse School of Public Communication to read and code the messages. These graduate students read the messages and coded them according to whether they interpreted the messages as either action justification and/or group identification messages. Each of the graduate students read 30 messages, 15 were action justification messages and the other 15 were group identification messages. The coders were given the definitions used in this thesis of action justification and group identification. The researcher identifies action justification messages as any message that provides political defense to the group's actions. The researcher identifies group identification messages as those messages that introduce the groups to the audience and points out the significance of their existence. The coders were asked to code; action justification as 1, group identification as 2 and both as 3. Messages that were categorized as mixed were ruled out. The messages were categorized as either action justification or

group identification based on the greatest consistency among coders. That is, if 6 out of 8 coded a message as 1 then it was categorized as action justification.

Participants were recruited using Amazon's Mechanical Turk (AMT), an online crowd sourcing service in which anonymous online web surfers complete web based tasks in exchange for money (Crump et.al, 2013). The researcher added the study to the website. Interested participants were asked to visit the Qualtrics link attached to the study's description on the website. Upon visiting the Qualtrics page, participants were directed to an informed consent form, and upon acceptance, participants took the pre-test. The researcher ensured that participants did not take the study multiple times. An option in Mturk shows the researcher if the participant took the same survey more than once.

Upon recruitment, participants took the pre-test survey in order to identify their attitudes towards Islamists. Participants also took a basic test to assess their knowledge about Islam. Recruited participants were divided randomly into three conditions: action justification, group identification and control group. Participants were not pre-classified as pre, anti and neutral prior to taking the experiment. Participants in the action justification group took the experiment either immediately or over a six-day period. Participants in the control group took the experiment over the course of two days. Those participants in the group identity conditions also took the experiment either immediately or over a six-day period. Participants who received the manipulation immediately were exposed to 10 messages. Participants, who completed the study over a six day period, received five messages per day on two consecutive days. The messages were delivered as Facebook statuses (See Appendix C). All participants who received the manipulation were asked to either like or dislike the message or leave a comment. After that participants took the posttest. Those participants, who took the experiment over the course of six days, were asked to take the posttest two days after they received the messages. The post-test survey was to identify changes in participants' attitudes towards Islamists.

Participants who took the experiment over several days were instructed before taking the pretest that they would receive the messages on separate days. The researcher ensured the participants took the study, in the proper sequence assigned, by checking the dates they visited the pages. Participants were debriefed about the experiment after they finished it. During the debriefing process, the researcher explained the purpose of this study. All participants reported that they understood that the messages were fake and created for research purposes only.

Stimulus Construction

A mock Facebook page with the name of *Defenders of Islam* was created. A fake character by the name of Muhammad was created to administrate this Facebook page. The name Muhammad is associated with the prophet of Islam, which is why the researcher used it. Participants were exposed to Muhammad's Facebook statuses. In order to maintain a closed environment where participants do not interact with each other, the Facebook page was set up using Qualtrics. Therefore, each participant read the messages without reading other participants' responses.

Participants were given the following instructions before they were exposed to the messages:

"Muhammad Qassam is an active member of the Facebook group "Defenders of Islam." You will read some of the statuses he posts on the group. Some of the statuses have links to blogs, you may go and check the blog if you want. You are not a member of the group yet. You are exploring. You can click like or dislike, and/or comment. Your answers are anonymous. Feel free to write how you feel towards these statuses or subject in the comment section of each status."

The researcher created the messages. She used messages posted by the Muslim Brotherhood's online page and *Inspire Magazine*. Due to the radicalization of the Inspire messages, the researcher used her journalistic experience to downplay the radicalization of these messages.

Knowledge

During the pretest, participants' knowledge about Islam was tested using a 10 question survey taken from the Huffpost 101 Islam religion test. The test asked basic

questions about Islam to evaluate the level of knowledge participants had about the religion. With the exception of one question, the news outlet designed the test. The measure included questions such as: Which of these is not from the five pillars of Islam? Which city do Muslims face while praying? Which of these are the largest Muslim sects? Participants were asked to choose only one answer from the five given. An “I do not know” option was also included.

A new variable was computed for each question with the value of one for the correct answer and zero for the incorrect answer. Each participant’s score ranged on a scale from 0-9. To be able to assess participants’ knowledge level, a new variable was created “Knowledge group,” $M=4.3$, $SD=.11$. Participants who scored less than 4 were identified as “less knowledgeable,” $N=115$, $M=2.06$, $SD=1.02$. Participants with a score between 4-5 were labeled as medium knowledge,” $N=115$, $M=4.4$, $SD=.5$. Participants with a score higher than 5 were labeled “higher knowledge,” $N=93$, $M=6.9$, $SD=.088$.

Dependent Variables

As was mentioned earlier, there were two dependent variables (a) attitude change and (b) behavioral change.

Attitude Change

Pre-existing attitudes about Islamists were assessed using a 10 item 7-point Likert-type scale based on Sergent, Woods, and Sedlacek’s Measure of Attitudes towards Arabs (1992). As explained earlier, the researcher changed the situations described in the questions to fit the stereotypes of how Islamists appear to non-Muslims, even though the Muslim characteristics described in the question do not necessarily imply that they are Islamists. According to research cited earlier, people find it difficult to differentiate between Muslims and Islamists in terms of heuristics cues. The scale describes a series of potential situations involving Muslims and asked people to rate their reactions to the situations described. In this study, the researcher tests attitudes towards Islamists in terms of heuristics cues like beards, hijab, etc. The researcher was not testing for attitudes

towards Islamists' policies.

Participants were asked to rate statements such as "You are standing on a very crowded bus, surrounded by Muslim people. Rate how self-conscious would you feel that you are with them?" "You are going on a vacation with your best friend and his or her Muslim friend of the opposite sex might join you. Rate how comfortable would you be that they could join" & "You are boarding a plane for a vacation in Florida and two young Muslim men with beards are boarding immediately behind you. Rate how comfortable would you be on a plane with them?"

Prior to running the reliability test, the responses to one statement in the pretest "a Muslim girl cannot finance her education, you hear a Christian church decides to help her get financial aid, rate the possibility of you protesting the church's decisions" was reversed coded. Pretest responses were averaged to create a single attitude measure, $M=4.7$ $SD=.5$ for the pretest. Reliability levels were acceptable ($\alpha = .73$).

Post test attitudes about Islamists were assessed using a 10 item 7-point Likert-type scale drawing on additional items from Sergent, Woods, and Sedlacek's Measure of attitudes towards Arabs (1992). Participants were asked to rate statements such as "You are on a plane and the person sitting next to you is a young man with beard, rate how self-conscious would you be" "Your classmate is a Muslim girl. She wears hijab [scarf]. You are assigned to work with her for four months about an issue related to your cultures, rate how comfortable would you be" & "You are watching the news channel and learnt that an earthquake killed over thousands of people's lives in Malaysia, which is a Muslim dominated country, rate how much would you sympathize with them." Prior to running the posttest one statement "you are on a plane and the person sitting next to you is a young man with a beard. Rate how self-conscious would you be" was reverse coded. Post test responses were averaged to create a single attitude measure $M=4.7$, $SD=.9$. Reliability levels were acceptable ($\alpha = .77$).

Participants were also asked to evaluate their attitudes towards Facebook. A five

questions survey based on a study by El Gazzar (2011) and Debatin (2009) about social media was used. The survey measured the comfort of participants with the media. Participants were asked to rate statement such as “I express myself well on Facebook,” “I trust information on Facebook more than what I read/listen to through mainstream media,” “Facebook helps me to learn more about this world.” Reliability levels were acceptable ($\alpha = .86$).

To place the participants into the three categories: pro, neutral and anti Islamists, a variable called attitude group was computed. Participants were asked to rate their attitudes to the situations described in the questions, using a 7 point likert scale, 1 is the most negative, 7 is the most positive and 4 is neutral. Those participants whose average score was less than 4 (neutral) were labeled as anti-Islamists, those whose scores fell in between the range of 4 -5 were labeled as neutral, and those responses that were equal or more than 5 were labeled pro- Islamists.

A variable called attitude change was computed in order to evaluate the change in participants' attitudes before receiving the messages. Attitude change is the difference between attitudes in the posttest and those in the pretest $N=323, M=0.653, SD=.62$. Attitudes in the pretest were subtracted from those in the post test. The attitudes changed either positively or negatively. Positive numbers indicated a positive attitude change; negative numbers indicated a negative attitude change. Attitude change absolute is another variable that was computed to measure the absolute difference of attitude change.

Behavior

To measure the behavior of the participants, the researcher collected and compared the number of likes/dislikes participants clicked on each status. As another way of measuring information seeking behavior, the researcher created one blog for action justification messages and another blog for group identification messages. These blogs were linked to the messages that the participants received. The information on these blogs was drawn from articles published by the mass media. The articles were selected

from the NY times and/or the Daily News Egypt. The purpose of these blogs was to determine how many participants, voluntarily visited them. Analytics were collected when people clicked on the links. The numbers of visits were then assessed. The researcher also asked participants a yes/no question in the posttest if they actively sought information about the topic.

Qualitative Analysis

In this study, participants were asked to comment on the Facebook statuses they received. After reading the overall comments, the researcher identified the following themes among comments left by participants in the group identification condition: distrust of Muslims, confusion between Muslims and Islamists, sympathy towards oppressed Muslims and neutrality towards Jerusalem. The researchers also identified the following themes among the action justification comments: prejudice guilt, confusion between Muslims and Islamists and neutrality towards Jerusalem. The researcher then counted each time one of these themes occurred.

Chapter 4: Results

Prior to analyzing the data, a one-way ANOVA was conducted to identify any significant differences in the pre-existing attitudes of people towards the messages between conditions. There were no significant differences, $F(2, 320) = 2, p = .134$. However, there were significant differences in participants' classification as anti, neutral, and pro between message group conditions, $\chi^2(4, N = 323) = 10.1, p < .039$. There were more neutral participants and fewer pro Islamists participants in the action justification condition.

An independent t-test shows that there were no statistically significant differences in attitude change between participants in the United States, $M = 2.2, SD = .7$, and participants in other countries, $M = 2.2, SD = .7$. There were also no statistically significant differences in the attitude change of participants who are males $M = 2.3, SD = .7$ and females $M = 2.3, SD = .7$. An independent t-test was undertaken to compare if there were differences in attitude change between participants who identified themselves as Muslims, $N = 38, M = 2.42, SD = .68$ and those who identified themselves as non Muslims, $N = 285, M = 2.2, SD = .69$. The results indicated that the differences were not significant $t(321) = 1.2, p = .902$.

Hypothesis Testing

Hypothesis 1 proposed that participants exposed to both action justification and group identification messages would experience either a more positive or negative attitude change compared to those participants who were in the control group. To test the significance of Hypothesis 1, a one-way ANOVA was conducted to compare the effect of the manipulation on attitude change. There was a statistically significant difference in participants' attitude change between the different experimental conditions, $F(2, 320) = 3.036, p = .049$. A series of independent sample t-tests were conducted to examine closely the differences between each of the experimental conditions. There were significant differences between action justification ($M = .13, SD = .6$) and group identification (M

$= -.03, SD = .6, t(269) = 2.365, p < .019$. However, there were no statistically significant differences between the message condition and the control group.

Attitude Change in Different Experimental Conditions

	Action Justification		Group Identification		Control Group	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Pro	.02	.53	-.27	.56	-.07	.77
Neutra	.15	.58	.11	.48	.26	.31
1						
Anti	.39	.77	.45	.66	.38	.87

Table 4.1. Shows the attitude change after exposure in each the experimental conditions.

Hypothesis 2 predicted that the attitudes of participants would change based on their pre-existing attitudes towards Islamists. Hypothesis 2a predicted that the attitude change of the participants whose pre-existing attitudes towards Islamists were classified as pro Islamists would change to become more favorable towards Islamists after being exposed to the messages. Hypothesis 2b predicted that the attitude change of the participants whose pre-existing attitudes were classified as neutral would become more favorable towards Islamists after exposure. Hypothesis 2c predicted that the attitude change of the participants whose pre-existing attitudes has been classified as anti-Islamists' would become more anti-Islamists after being exposed to the messages. There were significant differences in participants' attitude change within experimental conditions, $F(2,320) = 17.217, p < .001$. An independent t-test, $t(180) = 4.9, p < .00$, found that there were significant differences of attitude change between anti Islamists and neutral $p < .030$ and anti Islamists and pro Islamists $p < .001, t(184) = 2.6, p < .009$. An

independent t-test, $t(276) = 2.4$, $p < .026$, found that there was a statistically significant difference between neutral participants and pro-Islamists participants $p < .001$.

Participants with anti Islamists attitudes experienced more attitude change than either neutral or pro Islamists.

A multifactorial analysis of variance was conducted to examine possible interactions between attitude change and message group. Results indicated that there were no significant effects of message group on attitude change. The changes in the figure below indicate pro-Islamists' attitudes became more negative after exposure to group identification messages. Results confirmed H2b's prediction that neutral participants will have a positive attitude change after exposure. It's important to report that the means of the neutral participants rose in all three conditions. However, results were inconsistent with the predictions of H2c. Unlike the predicted relationship, participants with negative attitudes toward Islamists became more positive towards Islamists.

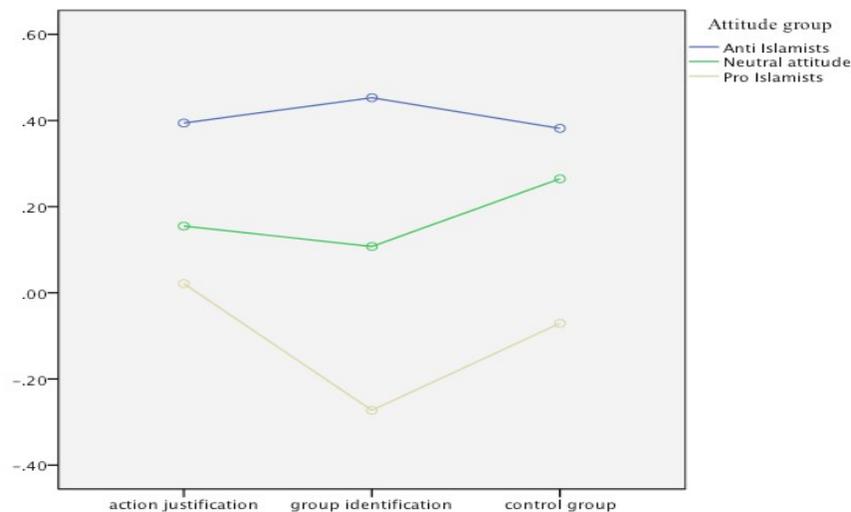


Figure 4.1. Illustrates the change in attitude of participants in the experimental conditions

Effect of Knowledge on Attitude Change

Hypothesis 3 predicted that there is a relation between people's knowledge about

Islam and their attitude change toward Islamists. Knowledge is a continuous variable, thus the hypothesis predicted that more knowledge about Islam would mean that participants would be more likely to report less attitude change than those with lesser knowledge about Islam, ($M=4.3$, $SD= .11$).

A Pearson product moment correlation coefficient was computed to assess the relationship between an individual's knowledge variable and the absolute attitude change. There were no significant correlations between the two variables, $r(323) = -0.004$, $p = .944$. The hypothesis is not supported. A one-way ANOVA shows no statistically significant differences in knowledge between message groups.

Interaction between Message Groups and Conditions

Hypotheses 4 predicted that the attitude change (positive or negative) of participants (pro, neutral and anti) depends on the type of messages (action justification, group identification) they receive. The hypothesis is divided into three sections. The first, H4a states that participants with pro-Islamists attitudes will have a favorable attitude change after being exposed to group identification messages and a less favorable attitude change after being exposed to action justification messages. A series of independent t-tests were conducted comparing pro-Islamists attitude change in the different message conditions. The dependent variable was attitude change and the independent variable was the message type: action justification and group identification. There was no attitudinal change for participants that received the action justification message. Participants who received the group identification messages reported a negative change in attitudes after exposure. The difference between the groups was not significant at the traditional $p < .05$ level, $t(111) = -2.79$, $p < .06$. Results indicate that Hypothesis 4a is not supported.

The second part of hypothesis 4b, predicted that participants with pre-existing neutral attitudes towards Islamists will become more favorable towards Islamists after being exposed to action justification messages. The hypothesis also predicted that participants with neutral attitudes towards Islamists would become less favorable after

being exposed to group identification messages. Independent T-tests indicated that there were no significant differences in attitude change between message groups. Hypothesis 4b is not supported.

The third part of the hypothesis H4c predicted that after being exposed to both action justification and group identification messages participants with negative attitudes towards Islamists would become less favorable. Independent T-tests indicated there were no significant differences in the effect of messages on the attitude change of the participants exposed to group identification, ($M=.45$, $SD=.66$) and action justification ($M=.39$ and $SD=.77$) messages, $t(32)=.237$, $p=.814$. Hypothesis 4c is not supported.

Participants in the control group took the experiment over two days. Despite, receiving no messages, participants in the control group experienced a slight change in attitude. A univariate analysis shows that the attitudes of participants in the control group rose positively, ($M=.26$, $SD=.30$). This attitude change could have been due to various reasons – either through external factors or through pretest effects.

The Effect of Experiment Time on Results

The results indicates that conducting the study on a six days timeline could influence differences in the attitude change between groups. Results show that there were attitude change differences between participants who received group identification messages in a day versus those who received the messages over six days. However, a univariate analysis shows that the differences between the other groups were not significant, $F(1, 318) = 2.12$, $p = .07$.

Attitude Change

Condition	Means	Std. Deviation
Action Justification	.11	.57
Action Justification over Six days	.22	.67
Group Identification	.13	.69
Group Identification over Six days	-.26	.53
Control Group	.13	.69

Table 4.2 shows the change in participants' attitude in the overall experimental

conditions

There was a total of number of 434 participants who signed up for the experiment. The figure below shows the number of people that signed for the experiment on six days and the drop out rate. Participants mainly dropped out after taking the pretest. In the action justification condition, 187 participants left the experiment after taking the pretest and 148 in the group identification condition left the experiment after taking the pretest.

Of those participants who dropped out of the study, $N=77$ were anti Islamists, $N=96$ pro-Islamists and the majority $N=162$ were neutral. There were no significant differences in participants' classification as anti, neutral, and pro, $X^2(2, N = 335) = 7.67$, $p = .481$ between those who dropped out and those who completed the study. As the numbers indicate, the numbers of participants who dropped out are greater than those who finished the study over the course of six days. There may be numerous reasons for the drop out. One of these could be negative attitudes towards Islamists. However, the majority of those who left the experiment had neutral attitudes towards Islamists, suggesting that pre-existing attitudes were not a major factor in determining the attrition rate.

Information Seeking Behavior

Group identification messages received a total of 614 likes compared to 642 dislikes. There were 30 participants who indicated that they actively sought information about Islamists. Only three participants in the six days condition sought information, the rest were from the one day experiment. The group identity blog received only 11 visitors.

Action Justification messages received a total of 736 dislikes, compared to 502 likes. Only 23 participants viewed the blog. There were 15 participants who said they actively sought information about Islamists, 11 of these participants were in the six days action justification group. As seen in figure 4.1, the overall attitude change of participants who were exposed to these messages became more pro-Islamist.

Participants' Responses to Group Identity Messages

Group identification messages are ones that reflect the identity of a certain group. Messages with an identity element were created to ignite sympathy within recipients. In this study, various participants commented by agreeing with the messages they read. The majority of the responses criticized the character of Muhammad. There was a general trend of distrust and negativity towards his Islamic identity. Some of the responses were R1: "It's hard to trust Muslims." R2: "It seems harsh and directed towards anyone who isn't Muslim." R3: "The path of Islam is not the only correct one." R4: "I saw Mickey Mouse in mine. You need better dreams"- in reference to a dream about Islam's prophet Muhammad. R5: "I'm sure victims of Islamic violence can imagine that pain very well."

Despite the artificiality of the experiment, participants responded to the character in the messages. There were attacks on Muhammad himself. R1: "Gonna need a fact check on that, Mohamed." R2: "What size trophy do you want?" R3: "It seems very arrogant. It may be true but it would seem like a 'good' Muslim wouldn't boast about it and be content knowing they are doing good in the world." R4: "Have you ever checked out the bible?" R5: "I don't think you are entitled to speak for an entire religion."

In response to how they feel about Muslims and Islam, some participants responded by referring to terrorists. R1: "Because most of the terrorists are Muslims," R2: "why do you hate Christians." R3: "They just have a bad representation in the press. I think its just because people like to have an antagonist in the world."

The majority of the participants, including Muslims, have expressed dismay with identifying Islam as the "sole solution" to the world's problems. This may have been a reason for them to feel distant from the messages. R1: "As a Muslim I see no need for this also I think it's having more negative effect than positive." R2: "Bourgeois religionism is no solution to the oppression faced by the Muslim world." R3: "While I admire your commitment to your belief, I have to take issue with your statement that Islam is the sole solution for this world."

Participants were more sympathetic to messages that gave an example of Muslim

oppression. For example, when tackling how a woman was fired because of her Islamic attire, people sympathized with her. R1: "I believe that forcing women to wear the hijab is a form of oppression. However, it's difficult to know if women are being forced or doing so solely because of their beliefs. Firing someone for wearing a hijab is wrong." R2: "This is actually very true. I wear a scarf of a different culture and get the same crap from people. It's obnoxious." There was in some cases aggression towards Islam, even though the status was talking about how Muslims are discriminated against. R3: "He has an excellent point, but Islam is an oppressive religion for women."

One of the most covered topics in the news media is the issue of Jerusalem, which is also one of the main messages used by Islamists. Many participants have voiced their opinion about this topic questioning the legitimacy of Muslims to have privileged status over other religions in regards to Jerusalem. R1: "Jerusalem is important to several faiths. There has to be peaceful, equal access to the city for all." R2: "Hmmm, well I think there are extremists on all sides (Christian, Jewish and Muslim). The press seems hell-bent on focusing on one group." R3: "I think there might be a few Israelis that would take issue with that statement."

Overall participation indicates that in terms of hostile groups, messages that talk about their identity are not very influential when trying to attract out-group members. R1: "I just feel that the extremist Muslims have ruined their religion for everyone else-no one I know would ever trust them, regardless of who they are, again after 9/11 and all the terrorist activity around the world."

Story	Like	Dislike	Comment
1	65	61	29
2	69	57	27
3	85	46	23
4	38	87	29
5	32	95	26
6	60	65	24
7	57	67	25
8	69	56	24
9	83	45	19
10	56	63	35
Total	614	642	261

Table 4.3 shows the likes/dislikes/comments left by participants on each of the group identity Facebook statuses. See Appendix to read the stories.

Participants Responses to Action Justification Messages

Action justification messages were designed to understand whether these types of messages strengthen the attitudes of the members of the out-group against the in-group. The messages aim to justify the actions of Islamists.

Some of the participants expressed guilt after taking this experiment. R1: "I feel bad that I would feel uncomfortable with Muslims in certain situations but that is the unfortunate truth." R2: "I feel like the questions were worded in a way to make it seem like I am racist against terrorist, when I am just uncomfortable and shy around any stranger which is why I answered questions the way I did." There was a sense of guilt for having prejudice or lack of knowledge about Muslims, which is possibly the reason behind the positive change in attitudes. Some participants emailed the researcher directly through Mturk to express either gratitude or doubts concerning this study. According to the feedback given by the participants, the action justification messages were thought provoking.

Story	Like	Dislike	Comment
1	88	38	20
2	54	64	24
3	55	68	21
4	62	63	18
5	33	92	21
6	44	81	17
7	58	71	14
8	36	88	20
9	41	80	22
10	31	91	20
Total	502	736	197

Table 4.4 shows the likes/dislikes/comments left by participants on each of the action justification Facebook statuses. See Appendix to read the stories.

Participants Rate their Facebook Habits

Participants were asked how they felt about Facebook in order to evaluate the role Facebook played in their attitude change and information seeking behavior (See Appendix to know the value of the codes). Most participants, 61 percent, agreed that they learn about the world through Facebook. However, around 48.6 percent disagreed that they trust Facebook more than the mainstream media.

Participants classify how they feel about Facebook in %						<i>M</i>
Statement	1	2	3	4	5	
I express myself well through Facebook	5.9	13.	25.	41.	13.	3.4
Facebook is an integral part of my social life	11.	21.	18	34.	15.	3.2
Facebook helps me to learn more about my friends	5	1	18	48	22.	3.7
Facebook helps me to learn more about this world	9	11.	18.	41.	19.	3.51
I trust information on Facebook more than what I read/listen through mainstream media	20.	27.	25.	20.	5.3	2.6

Table 4.5. shows participants' attitudes towards Facebook as a communication channel

Chapter 5: Discussion

This thesis challenges Selective Perception Theory by showing that out-group members could become more favorable towards Islamists after being exposed to messages about Islamist issues. The change took place despite pre-existing biases. Petty et al., explain that information that is perceived to be biased does not necessarily lead people to have biased judgments. Individuals correct their attitudes towards an issue or a person due to various factors. One possible reason is that individuals could be motivated to find these biases and change them (Petty & Wegener, 1993). Individuals also correct these biases due to motivation for “fairness”, “self-enhancement” (McCaslin, Petty, & Wegener, 2010), and justice. Many participants, after taking this experiment, left comments that they found that they have prejudices towards Muslims. They reported that the experiment motivated them to share more with their Muslim colleagues instead of holding them accountable for Islamists' actions. The researcher could not conclude which message appears more effective than the other.

Out-Group Members and Selective Interpretation

One could argue that social media's heuristics cues played a significant role in attitude change. The majority of the sample said they trust information that is delivered through Facebook. Hence, regardless of individuals' pre-existing attitudes, people process information received through Facebook because they are comfortable using the website and they trust it. Through Facebook, the source of information is not a journalist or someone whom they perceive as a biased source but someone who is a member of their social group or group of interest. Therefore, this person may appear more credible. Research cited in the literature review indicates social media plays a significant role in recruiting potential terrorists who find inspiration through SNS. The online platform provides individuals with the opportunity to interact with people who are either in-group members or others who share the same frame of reference.

As mentioned earlier, attitude change could have been a result of feeling of guilty for holding these prejudices towards another group. Anti Islamists group reported a more favorable attitude change after exposure. This group of participants had pre-existing negative attitudes. One could argue that action justification messages ignited a sense of fairness, which made participants dissociate their prejudices towards Islamists/Muslims from the actual policies of Islamists. In other words, disagreeing with the policies does not necessarily mean holding prejudices.

Meanwhile in the group identification categories, the pro Islamists group became less favorable towards Islamists after they received the group identification messages. These messages may have strengthened the prejudices of the out-group. One could argue that if pro-Islamists participants became more favorable towards Islamists after getting exposed to group identity messages, it would appear to them as if they are endorsing the policies of Islamists. Group identification messages seemed more hostile for many pro-Islamists participants. A possible explanation is that supporting a group's existence does not necessary mean supporting the group's behavior. In this case, the messages did not appeal to the participants' prejudices but instead created a doubt factor, as explained in some of their responses, whether they should support the group or not.

There was a positive change in the attitudes of participants within the control group. Participants in the control group took the study over a two-day period. Changes in the attitude of the participants in this group could have been due to external factors, for example, the news. But there is another factor that could have affected the results in the control group and other conditions which is the situations created in the pre-existing attitudes test. Around 17 percent of the participants in the control group indicated that they have sought external information about Islamists after taking the pre-test. This means that exposure to the questions could have led to this positive attitude change by forcing people to face their anti-Islamists attitudes. In this case, the awareness of stereotypes led people to use more systematic processing.

The Difference between the Behavior and Attitude Change of Participants

Fazio et al., argued that attitude change leads to behavioral change. They argued that attitude change is a process that takes place due to motivation. In this study, there is a difference between participants' attitude change vs. their like/dislike behavior towards the messages and information seeking behavior. Both action justification and group identification messages received more dislikes than likes. The action justification condition received even more dislikes than the group identification messages. However, participants in the action justification condition visited the blogs more than those in the group identification (See Appendix E).

The simplest explanation is that these participants sought information to counter argue the Islamists messages or because they have concerns about the information given to them. Another explanation is, as Russo and Chaxel (2010) argues that the effect of the persuasive message is subconscious. This means that people's attitude change could happen on the subconscious level after they process the information they receive. A third explanation is that participants, who disliked the statuses, were clicking dislikes on the policies and not on the idea of the group. In this case, as explained earlier, participants dissociated their prejudices towards Islamists, which could also translate as their prejudice towards Muslims, from what they read in the statuses, which could be translated as the policies of the group to achieve what the group want.

Limitations of the Study

There are a number of limitations in this study. The recruitment website Mturk was used to help the researcher get a larger sample and a more diverse sample. An online experiment was a very effective method given the nature of the research itself. However, the researcher was unable to control the experiment's environment (i.e. make sure that participants that took the experiment over six days finished it), which is why there was a major drop in the number of people who took the pretest compared to those who actually completed the experiment. Another limitation is the amount of data that was lost. Both

the six days conditions received more than 60 participants for the posttest; however, half of the data was lost because Qualtrics did not record the correct I.P. address. Due to this limitation, the researcher was unable to determine whether Islamists' persuasive messages will be more impactful on a longer period or it is more effective to use these messages in a shorter period of time.

The sample was diverse; however, there were few Arabs involved. A similar method should be repeated with Arab citizens and the results should be compared with the results of this study. There were also a few Muslims who took part in this study. It is important to have a larger Muslims sample to be able to compare the results with that of non-Muslims.

Another limitation is the manipulation itself. The researcher pretested these messages using eight American graduate students who identified which messages they thought were action justification and which were group identification. There is a possibility that the action justification messages were perceived and interpreted by the participants as group identification and vice versa.

Another limitation is the way in which anti, neutral and pro attitudes were calculated. A participant who scored 4.9 was classified as neutral, while a participant who scored 5 was classified as pro-Islamist. Another potential problem is how different items in the scale might have carried different weights. However, the alphas yielded by the standardized Cronbach tests for scale reliability for both pre-test and post-test scales were both fairly high. Another potential concern could be that the items on the post-test elicited higher rating than those on the pre-test. The similarity between pre- and post-test ratings among participants with pre-existing positive attitudes in the control group, however, suggests this was not an issue.

Conclusion

This thesis examined the influences of in-group messages on out-group members. The study looked at both attitude change of the out group members and their information seeking behavior about Islamists. The results indicate that regardless of the message type, participants became more favorable towards Islamists after taking the pretest. The only exception was participants in the pro-Islamists who became less favorable after they were exposed to the group identification messages. The results also indicate that a favorable attitude change does not necessarily lead to more information seeking. There are multiple reasons for this difference, most prominently that out-group members dissociate the group's existence from the policies of the group. Another significant factor is the method of communication; Facebook is a comfortable way for these out-group members to communicate with in-group members.

Further research on the impact of online platforms effects on processing online persuasive messages should be conducted to update the literature available. In today's world similar strategies of mass media propaganda could be used online. However, the nature of the online platform is different, which could make these tools either more persuasive or less.

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Appendix A: Pretest Measurement

Q1) This questionnaire measures how people think and feel in regards to a number of social and personal incidents and situations. This is not a test, so there are no right or wrong answers.

Each situation is followed by a 7-point scale. Your task is to select, for each descriptive scale, the rating. Which best describes YOUR feelings towards the situation.

You are standing on a very crowded bus, surrounded by Muslim people. Rate how self-conscious would you feel that you are with them?

1: Not at all	2: Not good	3: may be not	4: Neutral	5: yes why not	6: Very good	7: A lot
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You are going on a vacation with your best friend and his or her Muslim friend of the opposite sex might join you. Rate how comfortable would you be that they could join?

1; Very uncomfortable	2: un comfortable	3: slightly uncomfortable	4: Neutral	5: slightly comfortable	6: comfortable	7. Very comfortable
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You are boarding a plane for a vacation in Florida and two young Muslim men with beards are boarding immediately behind you. Rate how comfortable would you be on a plane with them?

1: Very uncomfortable	2: un comfortable	3: slightly uncomfortable	4: Neutral	5: slightly comfortable	6: comfortable	7. Very comfortable
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You are buying a used car from a Muslim woman wearing hijab [scarf]. Rate how you would trust the deal?

1: Very distrustful	2: distrustful	3: slightly distrustful	4: Neutral	5: slightly trustful	6: trustful	7: very trustful
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You are watching a television program about divorced Muslim fathers being given custody of their children. Rate how much you would sympathize with them?

1: Very unsympathetic	2: unsympathetic	3 slightly unsympathetic	4: Neutral	5: slightly sympathetic	6: sympathetic	7: Very sympathetic
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You are required to attend an Islamic service for a school research project; it is mandatory to go wearing modest clothes. Rate how comfortable will you be with that?

1; Very uncomfortable	2: un comfortable	3: slightly uncomfortable	4: Neutral	5: slightly comfortable	6: comfortable	7. Very comfortable
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You noticed a Muslim student cheating on an exam. Rate how comfortable you are with a “Muslim” cheating in the exam?

1:Very uncomfortable	2: un comfortable	3: slightly uncomfortable	4: Neutral	5: slightly comfortable	6: comfortable	7. Very comfortable
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You see a group of Muslim students staging an on-campus demonstration against the school discrimination. You think the school is unfair. Rate the possibility of you joining the protest to support their cause?

1: I would never go	2: Unlikely to go	3:may be not	4: Neutral	5: Possible	6: Yes why not	7: would definitely go
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A Muslim girl cannot finance her education; you hear a Christian church decides to help her get financial aid. Rate the possibility of you protesting against the church’s decision?

1: Not protesting at all	2: unwilling to protest	3:may be not	4: Neutral	5: yes why not	6: possible	7: would definitely protest
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A new Muslim boy with a beard joins your group. He is originally from Saudi Arabia. Rate how comfortable you are with his presence?

1; Very uncomfortable	2: un comfortable	3: slightly uncomfortable	4: Neutral	5: slightly comfortable	6: comfortable	7. Very comfortable
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Knowledge Test

Which of these is not from the five pillars of Islam? A) Praying B) Fasting C) Sharia D) Pilgrimage E) I don’t know

Which city do Muslims face while praying? A) Jerusalem B) Mecca C) Cairo D) Dubai E) I don’t know

How many times do Muslims perform their pilgrimage? A) One B) Three C) Two D) five E) I don’t know

Which of these are the largest Muslim sects? A) Ahmadiyya B) Sunni C) Shia D) Kharijite E) I don't know

What country has the largest Muslim population? A) Saudi Arabia B) Iran C) Indonesia D) India E) I don't know

It is generally expected for Muslims to start observing the fasting ritual of Ramadan when they reach what life event? A) Ability to walk B) Puberty C) 18 years of age D) Marriage E) I don't know

What is the name of the third holiest Muslim site? A) Eid-ul-fitr B) Al Aqsa Mosque C) Madinah D) Old Cairo E) I don't know

Approximately how many Muslims are living in the U.S. A) 2.5 million B) 10 million C) 25 million D) 500,00 E) I don't know

The Shahada is: A) There is no god but Allah and Muhammed is the messenger of Allah B) one of the five pillars of Islam C) The central Islamic creed D) all of the above E) I don't know

Where do Muslims perform their pilgrimage? A) Mecca and Medina B) Jerusalem C) Gaza D) Cairo E) I don't know

Appendix B: Posttest Measurement

Facebook usage

On the below scale 1-5, rate how much you agree/disagree with the following statements. 1 is very negative and 5 is very positive and 3 is neutral.

Statement	1: Strongly disagree	2: Disagree	3: Neutral	4: Agree	5: strongly agree
I express myself well through Facebook					
Facebook is an integral part of my social life					
Facebook helps me to learn more about my friends					
Facebook helps me to learn more about this world					
I trust information on Facebook more than what I read/listen to through mainstream media					

This questionnaire measures how people think and feel in regards to a number of social and personal incidents and situations. This is not a test, so there are no right or wrong answers.

Each situation is followed by a 7-point scale. Your task is to select, for each descriptive scale, the rating. Which best describes YOUR feelings towards the situation.

You are on a plane and the person sitting next to you is a young man with a beard. Rate how self-conscious would you be:

1: Very self-conscious	2: Self conscious	3: slightly self conscious	4: Neutral	5: No why should I be	6: Doesn't bother me	7: Did not even notice
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Your classmate is a Muslim girl. She wears hijab [scarf]. You are assigned to work with her for four months about an issue related to your cultures. Rate how comfortable would you be:

1; Very uncomfortable	2: un comfortable	3: slightly uncomfortable	4: Neutral	5: slightly comfortable	6: comfortable	7. Very comfortable
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You are watching the news channel and learnt that an earthquake took over thousands of people's lives in Malaysia, which is a Muslim dominated country. Rate how sympathetic would you be with them:

1: Very unsympathetic	2: unsympathetic	3 slightly unsympathetic	4: Neutral	5: slightly sympathetic	6: sympathetic	7: Very sympathetic
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You are on a vacation and you find a girl wearing hijab [scarf] sitting on the same beach you are sitting. Rate how disturbed would you be:

1: Extremely disturbed	2: disturbed	3: Slightly disturbed	4: Neutral	5: Not disturbed	6: undisturbed	7: Extremely undisturbed
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You hear two people talk in Arabic, they look Islamists and they are getting on your bus. Rate how comfortable would you be:

1; Very uncomfortable	2: un comfortable	3: slightly uncomfortable	4: Neutral	5: slightly comfortable	6: comfortable	7. Very comfortable
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You are renting an apartment from a Muslim man. Rate much would you trust the deal:

1: Very distrustful	2: distrustful	3: slightly distrustful	4: Neutral	5: slightly trustful	6: trustful	7: very trustful
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You are watching the television, a news program about the overthrow of an elected Islamist president. Rate how would you accept that:

1: Extremely unacceptable	2: Unacceptable	3: Slightly unacceptable	4: Neutral	5: Slightly acceptable	6: Acceptable	7: Very acceptable
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You see a group of Muslim students staging an on-campus demonstration about the discriminatory policies against them. Rate the possibility of you to join the protest:

1: Not protesting at all	2: unwilling to protest	3: may be not	4: Neutral	5: yes why not	6: possible	7: would definitely protest
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A Muslim student was unsuccessful in getting a financial aid, everyone thinks its because of the student's religion. Rate the possibility that you would protest to help her get the aid:

1: I would never go	2: Unlikely to go	3: may be not	4: Neutral	5: Possible	6: Yes why not	7: would definitely go
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Your friends introduce you to a new person. You later find out that he/she is a Muslim. Rate how would you be comfortable in befriending the Muslim person:

1: Very uncomfortable	2: un comfortable	3: slightly uncomfortable	4: Neutral	5: slightly comfortable	6: comfortable	7: Very comfortable
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Final Questions: Please mark a yes/no to the following questions. Give reasons to each of your decisions.

The experiment inspired me to actively research about Islamists Yes/No [If yes, name websites you browsed.....].

I understand that all information provided in this experiment has been created for the purposes of this study Yes/No

Appendix C: Manipulation

Action Justification

- Be a good Muslim and leave your trouble to Allah, you will see how things changes for the best
- Believe in your Muslim leadership, they will lead you somewhere you can raise the name of Allah.
- People love Islam and they want sharia, which is why we have to help them against their oppressors, we have to help them gain freedom.
- Allah says in the Quran, I seek refuge in Allah from the accursed Satan. O you who believed shall I point you to a trade that will save you from a painful torture? You shall believe in Allah and in his messenger and you shall seek Allah with your money and your soul, as it is good for you, if you were to know.
- By the name of Allah, we will bring back the rule of Islam to this world. This is the only way to ensure justice to the world. We will fight for that, no matter what it takes us.
- We will continue what we have started because this is how we stand for our believes and values. This is how we teach the upcoming generations that this world needs Islam.
- Freedom to our detained friends, we shall stand for them till the very end.
- Israel kills Palestinians everyday, we won't recognize the Zionists under any circumstances and we don't want a peace treaty with them.
- Muslims around the world should unite together to become one group, everyone should believe in the principles of Islam because that is the only way we ensure that we are all equal and the same.
- Hamas is our role model; we should unite together against the Israel's aggression towards our brothers and sisters.

Group Identification

- We have been under great oppression for many years, this makes us believe even more in Islam. It is the sole solution for this world, to become a better place. That is why, no

matter how much tyrants want to oppress us, we are still who we are.

-We Muslims are the most charitable society in many countries, like the U.K., we deserve this acknowledgment. This will happen when more people know how great our religion is.

-Our call to Islam is a transparent one; it is an innocent and fair one. We have no materialistic motivations.

-Democracy is wrong, look what happened in the Muslim countries that tried to adopt democracies, our Muslim leaders were overthrown. That's why our path of Islam is the only correct one.

-Jerusalem is Islamic and no body is entitled to make concessions, the goal recovering of Jerusalem is a duty for all Muslims.

-Many of our brothers and sisters have seen the Messenger (PBUH) in their dreams. He was preaching them about the right path that they follow.

-Muslims around the world should unite together to become one group. Everyone should believe in the principles of Islam because that is the only way we ensure that we are all equal and the same.

-Islam is a faith, a law of life, the law of worship and the ethics of living. Islam awakens the conscience of a person. It is the angel of monitoring people's behavior for God. We all love Islam.

-No body can imagine the pain a true Muslim believer goes through, we see our brothers and sisters in Islam dying across the globe and have to stay strong.

-Why does the whole world hate us Muslims?

Appendix D: Experiment Execution

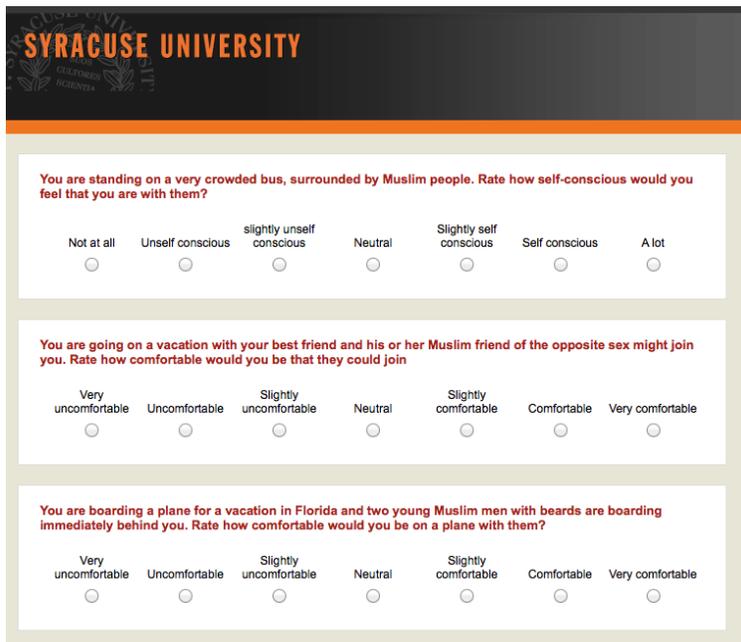
Step 1: Consent form



SYRACUSE UNIVERSITY
CULTORES SCIENTIA

Omnia Ebrahim Al Desoukie is a M.A Media Studies Candidate at S. I. Newhouse of Public Communications, Syracuse University. She is studying the effects of different types of persuasive messages in social media. You are being asked to participate in the study. Participation is voluntarily and you may quit at any time.

Step 2: Pretest



SYRACUSE UNIVERSITY
CULTORES SCIENTIA

You are standing on a very crowded bus, surrounded by Muslim people. Rate how self-conscious would you feel that you are with them?

Not at all Unself conscious slightly unself conscious Neutral Slightly self conscious Self conscious A lot

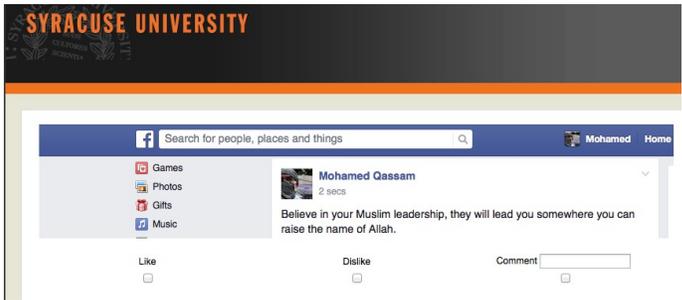
You are going on a vacation with your best friend and his or her Muslim friend of the opposite sex might join you. Rate how comfortable would you be that they could join

Very uncomfortable Uncomfortable Slightly uncomfortable Neutral Slightly comfortable Comfortable Very comfortable

You are boarding a plane for a vacation in Florida and two young Muslim men with beards are boarding immediately behind you. Rate how comfortable would you be on a plane with them?

Very uncomfortable Uncomfortable Slightly uncomfortable Neutral Slightly comfortable Comfortable Very comfortable

Step 3: Manipulation



Step 4: Posttest

Click to write the question text

	Strongly disagree	Disagre	Neutral	Agree	Strongly Agree
I express myself well through Facebook	<input type="radio"/>				
Facebook is an integral part of my social life	<input type="radio"/>				
Facebook helps me to learn more about my friends	<input type="radio"/>				
Facebook helps me to learn more about this world	<input type="radio"/>				
I trust information on Facebook more than what I read/listen to through mainstream media	<input type="radio"/>				

Appendix E: Blogs

Action Justification: <https://mqassam.wordpress.com>

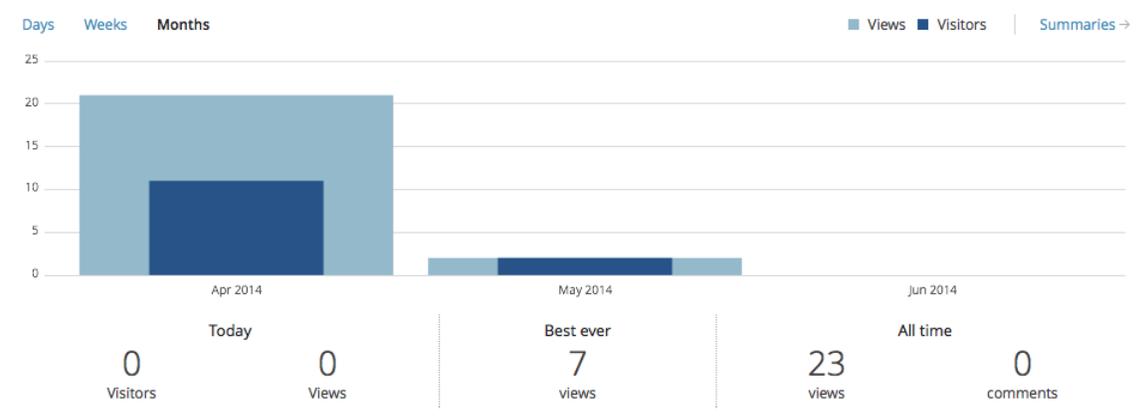
Story Sample

MUSLIMS HAVE TO UNITE!

Most of the arms shipped at the behest of **Saudi Arabia and Qatar** to supply Syrian rebel groups fighting the government of **Bashar al-Assad** are going to hard-line Islamic jihadists

http://www.nytimes.com/2012/10/15/world/middleeast/jihadists-receiving-most-arms-sent-to-syrian-rebels.html?pagewanted=all&_r=0

Analytics



Group Identification: <https://mqaassam.wordpress.com>

Story Sample

FOR ISLAMISTS, DIRE LESSONS ON POLITICS AND POWER

April 2, 2014 — Leave a comment

Sheik Mohamed Abu Sidra had watched in exasperation for months as President Mohamed Morsi and the Egyptian Muslim Brotherhood bounced from one debilitating political battle to another.

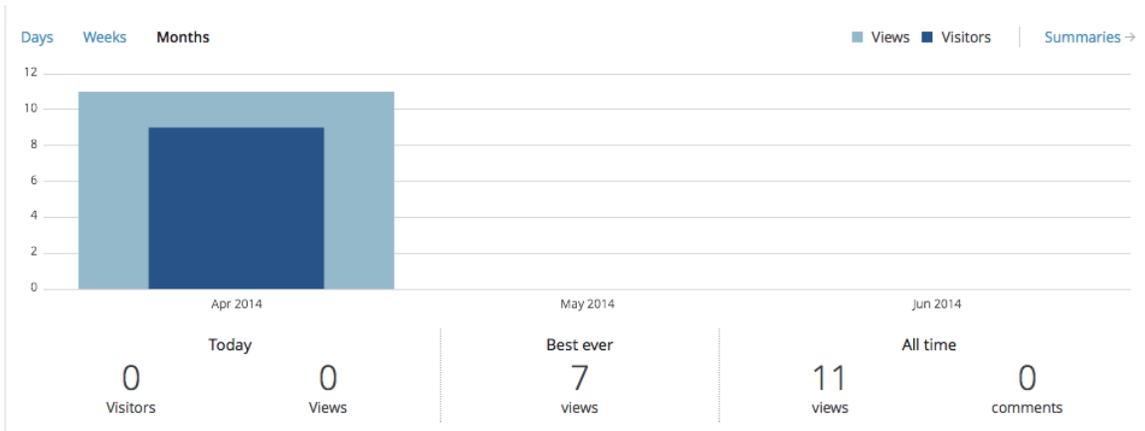
“The Brotherhood went too fast, they tried to take too much,” Sheik Abu Sidra, an influential ultraconservative Islamist in Benghazi, Libya, said Thursday, a day after the Egyptian military deposed and detained Mr. Morsi and began arresting his Brotherhood allies.

But at the same time, Sheik Abu Sidra said, Mr. Morsi’s overthrow had made it far more difficult for him to persuade Benghazi’s Islamist militias to put down their weapons and trust in democracy.

“Do you think I can sell that to the people anymore?” he asked. “I have been saying all along, ‘If you want to build Shariah law, come to elections.’ Now they will just say, ‘Look at Egypt,’ and you don’t need to say anything else.”

<http://www.nytimes.com/2013/07/05/world/middleeast/for-islamists-lessons-in-politics-and-governing.html>

Analytics



Vita

Omnia Al Desoukie is a Media Studies Candidate'14 at S.I.Newhouse School for Public Communications. She studies audience behavior to messages they perceive through online media. Her research has focused on how entities could use online media to persuade the behavior of a niche. Through out graduate school, she has been studying political communication. Prior to graduate school, Omnia was a reporter in Cairo. She began reporting in Cairo in 2009. Her reporting mainly focused on social and political aspects of Egypt. During her work as a journalist, she reported on the Muslim Brotherhood and the ultra-orthodox salafis. She witnessed the uprisings and the change in power in Egypt during 2011. She received her B.A. from Cairo University'10.