Exploring the Visual in the Public and the Crowd: A Mixed-Method Investigation

Thesis

Thesis Presented in Partial Fulfillment of the Requirements for the Degree Master of Arts in the Graduate School of The Ohio State University

by

Kathryn Benski, B.A.

Graduate Program School of Communication

The Ohio State University

2011

Thesis Committee:

R. Lance Holbert (Advisor)

Dr. Susan Kline
Abstract

The foundational public opinion concepts of the “crowd” and the “public” are used to explore contemporary group activities, specifically demonstrating how the environmental movement’s proclaimed conservation groups (e.g., The Sierra Club) as well as eco-terrorist groups (e.g., Earth Liberation Front) fall along a crowd-public continuum. Group discourses are used to understand the societal function of these groups, and significant insights are generated from visual rhetorical analyses of the images representing each group. A visual rhetorical methodology is advanced through the development of ideographs, which in turn supports a final method of experimentation. Analyses reveal emotional responses triggered by competing ideographs (public v crowd) contributing to attitudes and behavioral intention toward the environmental movement, especially positive affect generated from the public ideograph. This triangulated investigation illuminates the crowd-public continuum, how various crowds and publics exist in society, and the influence of images on public perceptions and behavioral intentions.
Acknowledgements

I would like to express my sincere gratitude to my advisor, Dr. Holbert, for his dedication to my success in this program. I am also grateful for the support of my committee member, Dr. Kline. Without their encouragement, and the tremendous resources and faculty of the School of Communication, this thesis would not be possible. Thank you.
Vita

2003.........................................................Scotch Plains – Fanwood High School
2007.......................................................B.A. Communication University of Delaware
2007 to 2009..............................Research Associate, The Keller Fay Group
2009 to present..............................Graduate Teaching Associate, The Ohio State University

Fields of Study:

Major Field: Communication
# Table of Contents

Abstract........................................................................................................... ii
Acknowledgements.......................................................................................... iii
Vita....................................................................................................................... iv
List of Figures.................................................................................................... vi
The Crowd and the Public.................................................................................... 2
Environmental Groups as Publics and Crowds.................................................. 7
Exploring Visual Rhetoric: Analysis & Method................................................... 17
The Use of the Ideograph in Experimental Research......................................... 32
Experimental Methodology................................................................................. 34
Mixed Method Triangulation.............................................................................. 42
Discussion.......................................................................................................... 43
Conclusion......................................................................................................... 49
References......................................................................................................... 50
Appendix A: The Public Ideograph................................................................. 58
Appendix B: The Crowd Ideograph................................................................. 59
List of Figures

Figure 1. The crowd – public continuum.........................................................17

Figure 2. Theoretical Process Model..............................................................38

Figure 3. Process Model of Influence............................................................40

Within functioning democratic societies, groups form based either on common opinion or a lack of public consensus regarding issues of social or political importance. Ideally, major issues affecting a society are handled through informed, rational discourse among attentive members of the collective, with undistorted communication, in order to reach a consensus and make decisions on subsequent action (Habermas, 1962). Through such rational debate, an agreement is made or the rule of the majority manages the outcome. Naturally, when considering public opinion at a practical level rather than a Habermassian ideal, societies rarely obey the normative ideal. A practical outcome of diverse public opinion on important social issues is the formation of distinct groups, factions, or subsets, relative to the issue at hand. The formation of groups supporting one candidate or another, for example, in the process of a political campaign produces social distinctions (Berelson, Lazarsfeld, McPhee, 1954). Groups are often differentiated based on the content of their arguments; that is, their competing ideas relative to managing the problem (Baumgartner & Leech, 1998). On the other hand, groups can be differentiated based on their approach to handling the issue, or how the group is initially formed. For example, one environmental group may choose collectively to publish information and opinions (i.e., knowledge dissemination) through various media outlets, while another group may deem it more important to boycott certain industries or sabotage machinery.
(i.e., direct and subversive behavioral engagement). The actions of both group types can not only influence opinion of the greater citizenry, but public policy decisions as well.

**The Crowd and the Public**

Two fundamental concepts in public opinion research, the *public* and *the crowd*, help to clarify the various groups that form out of disagreement relative to the content of opinion and differing approaches to action (Price, 1992). While these basic concepts were born out of sociological queries on collective behavior (e.g., Park 1904/1972; Blumer, 1946), each continues to prove its existence in modern society. Publics and crowds still exist differentially, and recognizing their nature can shed light on current and future group behavior.

*Crowd*

First, the concept of the “crowd” originated from late 19th century scholarship in mass psychology. Gustav LeBon (1895/1960) pioneered the study and conceptualization of crowd psychology and behavior, and this concept continues to capture the attention of social psychology and communication research (e.g., Hewes, 2009; Wildschut, Insko, Gaertner, 2002). The crowd is seen in society as the group whose opinions escalate into extreme action, occasionally, but not always, violent. In order to understand the destructive behaviors of such a group, and their relation to other groups, defining features must first be presented.

The first characteristic of a crowd is one that is shared with a public. In both group types exist a collective force or general will that dominates group thought (Park, 1904/1972). With crowds in particular, the common bond of collective will is formed among anonymous members, individuals who were previously unknown to one another.
The primary implication of the anonymity inherent in the crowd is the lack of individual accountability, as personalities give way to the group will. As Drury and Reicher (1999) point out, personal identity becomes less salient in the crowd and people act in terms of the social identity associated with the relevant social issue the group is consumed by. Furthermore, there are strategic consequences beyond identity salience. Since crowd members are anonymous, a lack of sanctions allows crowd group members to enact their collective values even in the face of outside opposition (Reicher, Spears & Postmes, 1995). This mental unity of the crowd is combined with unity in action, both key characteristics of crowds, that are together founded on “a host of nameless units” acting in unconscious coordination (Christensen, 1915/2001, p.11).

The element of non-consciousness is also central to the character of crowds (LeBon, 1895/1960). Essentially, the phenomena of violence and destruction that is observed in crowd-like groups are caused by unconscious forces. Such forces are the result of the loss of conscious individuality and personality among its members. In turn, each member is subject to the persuasive force or suggestibility collectively generated by the group. In recent research, suggestibility is often examined in a clinical psychology perspective (Raz & Buhle, 2006) in which the concept is closely linked to hypnosis, but best understood as a psychological process with great influence on memory and emotion, while also producing behavioral effects (Raz, 2007). Christensen (1915/2001) posits that suggestibility is the fundamental factor in the psychology of crowds. It is the force that creates an impression which shapes thought processes in such a way known as the “narrowing of consciousness” (p. 14). This state of mind prevents any rational reflection, making individuals resistant to objection from other sources. Suggestions that influence
crowds may take shape in many forms, such as gestures or music, however language is the most powerful in inciting action (Leming, 1987).

Another determinable feature of crowds is the element of emotion. Crowds demonstrate a lost capacity to reason and the “exaggeration of sentiment” (LeBon, 1895/1960, p.10). Crowd behavior is affectively reactive, passionate in its exaggeration, yet, primitive in emotion. According to Christensen (1915/2001), individual influence is never felt upon the crowd, and as such, only those emotions possessed by each and every member of the group can be expressed. This collective emotion limits the crowd to such primitive emotions as fear, anger, or joy (Lazarus & Smith, 1988). Such primitive emotional processes are another compelling impetus for the crowd’s impassioned, extreme behaviors. As judgment dissolves, empowerment emerges in the crowd as a function of in-group support felt, and an extreme behavioral shift is often a result (Drury & Reich, 1999).

The factors that influence crowds, suggestions, may come in the form of oratory or other rhetorical forms through a variety of channels. LeBon points out that forms of rhetoric may be words and formulas, or even images. Illusions and experience are other immediate factors able to consume and influence the crowd mind. The imagination of crowds may be quite powerful, as “to know the art of impressing the imagination of crowds is to know at the same time the art of governing them” (LeBon, 1895/1960, p. 37).

Public

To now consider the defining features of the “public” it should be noted that often characteristics of the crowd are invoked for comparison. These fundamental concepts do
not share many exact features, however they can be envisioned as existing along the same continuum; offering conceptualizations of differentiated opinion groups, yet groups all the same. One of the few similarities between the public and the crowd, as Park identified, is that a collective will influences common thought and behavior within each group. The concept of the public is still distinct from the crowd in structure, content, and action, however. First, a public is an organized collective group. Though this organization may not necessarily be formally structured, individuals organize together around an issue. While there may be some variation in solutions to the issue, there is agreement relative to the common goal of resolution. Thus, the basic structure is opposite that of the crowd, as one public may have opposition within the group, but an agreed upon strategy to find a common solution. That strategy resides in rational discourse.

A crucial feature of the ideal public is in the mindful engagement in debate among members of the group, so members need not be anonymous to each other as in a crowd. In Blumer’s (1946) early conceptualizations of crowd and public, the public was differentiated in the rational consideration offered by members to ensure a rational outcome. Willingness to compromise, and even seeking compromise, often typifies the public as well. Such rational discussion highlights a disparity between the public and the crowd. Critical reasoning within a public clearly sets it apart from the crowd’s unconscious collective driven by more irrational processes.

Another significant distinction between the group types deals with the element of emotion. The public expresses less emotional behavior and more rational reaction compared to the crowd. Certainly a group characterized as a public may include
elements of pathos within its deliberative efforts to appeal to members or gain support regarding issue positions (Park, 1904/1972). However, this emotion does not consume the group in such frenzied behaviors or illogical thought as would a group identified as more crowd-like.

Both concepts of the public and the crowd demonstrate two distinct types of groups existing in democratic society, though not purely antithetical. As mentioned, these concepts are best represented on a continuum with the various dimensions of group behavior as anchors rather than in stark contrast. While some groups may exist that exhibit characteristics purely crowd-like or exclusively public-like, it is far more likely for groups to express more or less of the defining features. An ideal public and ideal crowd may serve as the extreme endpoints of a range in which public opinion groups realistically contain varied components, finding a place somewhere along such a range. This place, or niche, on this continuum is a way in which opinion groups establish their own existence as a group. While that niche along the continuum could ostensibly vary over time with changes in behaviors, the established motivations, goals, and lasting characteristics of groups create their niche.

In the context of American democratic society, and the formation of public opinion, groups form based around an issue concerning various socio-political problems. According to Blumer (1948), these societal group organizations function to inform politicians about their attitudes on such issues (see also Habermas, 2002). On the other hand, attitudes and behaviors of interest groups may result from political processes. One such issue that offers a vast range of opinions is environmentalism (Delicath & DeLuca, 2003). Numerous and diverse environmentalist groups have formed in order to address
specific issues relative to land, sea, or animal-life, and characteristic of any movement, groups have formed out of differing opinions about the problems, strategies, and actions regarding the environment (McCright & Dunlap, 2008). Environmentalism as an overarching issue provides an especially interesting context relative to the exploration of the basic public opinion concepts. Environmental issues represent one cogent example of disputed issues creating distinct groups based along the continuum of publics and crowds.

**Environmental Groups as Publics and Crowds**

In order to elucidate the public-crowd continuum in the context of the environmental movement, concrete examples of groups are offered. These examples demonstrate the existence of these two group types and their respective functioning in society. The organizations known as EarthFirst! and the Earth Liberation Front (ELF) are two groups similar in structure and interest, and each will be briefly described and their representations as crowd-like groups will be further explored. After that, two environmental groups exhibiting more public-like characteristics will be detailed, the Sierra Club and Friends of the Earth. An analysis of group discourse will highlight how each group’s textual discourse in its online communication exhibits characteristics of its respective group classification (i.e., crowd v public). Then, a proposed means of visually evaluating groups according to the proposed crowd-public continuum will be developed.

**Crowd Exemplars**

*EarthFirst!* EarthFirst! is an environmental group founded in the late 1970’s by disaffected members of conservative environmentalist groups, as well as activists from other more militant groups. This group found reason to come together as a common response to “a lethargic, compromising, and increasingly corporate environmental
community” (“About Earth First!,” n.d.). For decades, the collective group will continued to shape the group’s activities. During the 1980’s for example, members of EarthFirst! engaged in “direct actions” ranging from tree-sitting, a form of civil disobedience to protect cutting down of trees, to tree-spiking, a more violent form of protest against logging that entails hammering a nail into the tree that can create shrapnel injuries if attempted to cut with machinery such as a chainsaw (Delicath & DeLuca, 2003).

The group exhibits a structure of individual anonymity, but genuine activity among its members. The EarthFirst! website declares that there are no “members” as it represents a “movement” rather than an organized group (“About Earth First!,” n.d.). To add to the anonymity if its members, is an absence of leadership in that they claim “the only leaders are those working most effectively” to achieve the goals and refine and perfect the tactics the group advocates. Despite the group lacking structure and organization, the EarthFirst! community is propelled by their common agreement, explicitly stated as; “the need for action!” (“About Earth First!,” n.d.).

The rhetorical theme of action is apparent throughout the group’s representation within their own communication. Applying pressure, using direct tactics as their actions, and being uncompromising activists are all encompassed in the group’s description of itself. Their actions substantiate this claim, as the group has been reported to engage in illegal activities from trespassing, road-blockading, office sit-ins, tree-sitting, equipment damage, and arson of property (Smith, 2008; “No Compromise…,” n.d). Congressional investigations additionally took place based on the actions of Earth First! members. In 1998 the House of Representatives’ Judiciary Committee Subcommittee on Crime held a
hearing on “Acts of Ecoterrorism by Radical Environmental Organizations.” The hearing called on multiple individuals who witnessed or experienced the violence and destruction of the group’s actions. Naming Earth First! an eco-terrorist group, further calls were made to create stricter laws and punishment for such actions (Smith, 2008).

A second theme involves emotional, passionate rhetoric, representing a clear connection to this main feature of crowd-like groups. For example, the EarthFirst! website homepage describes how members are brought together by experiences such as the “joy of the wild” as well as the “anguish” in seeing the environment harmed. These emotions are experienced so viscerally that members seek each other out in an effort to “consort with other like-hearted people” (“About Earth First!,” n.d.). However, in a section on how to form an Earth First group, people are reminded that it is up to each individual to create and carry out campaigns. The recommendation to find a “contact” to educate themselves reiterates the anonymity of this crowd-like group. Affective words that reflect literal emotion are supplemented by evocative phrases and powerful language, such as “No Compromise!” and “Dare to love that much!” that reflects the passion of the group’s motivations. Even the simple use of an exclamation point within the group name, EarthFirst!, expresses this zeal.

The actions of the group reflect the affective vigor and advance the argument that this group does indeed exhibit behaviors closer to that of a crowd than a public. In contrast to a definitive feature of public-like groups, EarthFirst! avoids deliberation, encourages anonymity among the activists, and champions activities that could be deemed illogical. That is, considering many of the championed tactics are illegal actions such as sabotage, it is not logical to promote activities that cannot be sustained.
Continued arrests promote stricter laws and a potential loss of members. While the group does suggest “learn the law” to individuals looking to participate, and that jail is not always the best strategy, it is simultaneously conceded that being arrested may bring media attention to the issue. While civil law may not be synonymous with logical, rational action, it offers a normative base to recognize the more crowd-like behaviors among the members of EarthFirst!.

*Earth Liberation Front.* The Earth Liberation Front (ELF) is a second example of an environmental group that exhibits crowd-like characteristics. According to its website, the ELF first stood for “Environmental Life Force,” and came into being in 1977, expressing a philosophy that would carry over to what is now known as today’s Earth Liberation Front.¹ Officially founded first in England in 1992, the ELF established itself in America with an arson attack on a US Forest Service truck in Oregon’s Willamette National Forest (Leader & Probst, 2003). These early members were originally part of the EarthFirst! movement, but determined the group was becoming too mainstream and that a different approach would better advance their more radical agenda (Vanderheiden, 2005).

There is recognition by the ELF that the environment faces dire threats from human and technological progress. Considering such threats, the guiding philosophy of the group encourages direct action with the explicit aim to “inflict maximum economic damage to those who profit from the destruction of the natural environment” (“Earth Liberation Front,” n.d.). Additionally, the ELF includes a guideline for potential

---

¹ This analysis will consider both iterations jointly, as they claim to share structure and philosophy.
members to “educate the public on the atrocities committed against the environment and all of the species that cohabitate in it” (“Earth Liberation Front,” n.d.), however specific educational material is not explicitly addressed. The atrocities are generally outlined as global warming, air pollution, chemicals in water and food supplies, with implications of guilt toward the US government and corporations. The collective will of the ELF is based on those who commonly understand what threats and atrocities the environment faces, and the common agreement in strategy for destructive actions.

This strategy is clearly developed as a destructive and uncompromising one. In the first paragraph in its response to addressing “What the Earth Liberation Front Is” on the movement’s website, is a description of the group’s actions totaling “well over $150 million” of damages to private and governmental agencies (“Earth Liberation Front,” n.d.) The Federal Bureau of Investigation defines the actions of the ELF as eco-terrorism, due to the unlawful nature of sabotage, arson, and violence undertaken to advance their political and social objectives (Congressional Testimony, 2002). With law acting again as a normative agent of rationality, the ELF clearly defies reasonable debate as they claim to have a “nonviolent” record regarding harm to human beings and animals, while they “sensibly…inflict severe economic damage” (“Earth Liberation Front,” n.d.). The ELF points to the murderous and violent record of corporate and government entities as their profitable actions of destruction to the environment will continue if there is no action taken by the ELF. This implicit motivation continues to address potential members directly: “they [government and corporations] have a vested interest in continuing even at the expense of your life and the life of the planet” (Earth Liberation Front,” n.d.). This irrationality includes hyperbole as the group suggests families,
communities, future generations, and “all the species of life on the planet” rely on the actions of the ELF for survival (Earth Liberation Front,” n.d.). Such irrational behavior and passionate exaggeration are directly comparable to LeBon’s initial definition of crowd-like behavior.

Anonymity of group members, another defining feature of a crowd, is also hailed as a characteristic of the ELF. According to the group’s own communications via their website, the ELF consists of anonymous individuals organized into “autonomous cells that operate independently and anonymously from one another and the general public.” Additionally, the group asserts “no central leadership, no hierarchy, no membership databases,” together only complying with the guiding philosophy of taking direct actions to cause economic damage to those damaging the environment. Only by committing an action in the name of this collective philosophy does an individual become an anonymous member of the ELF.

Public Exemplars

Turning now to the other end of the continuum, two groups will be described that exhibit more public-like characteristics. First, the Sierra Club demonstrates the rational, deliberative qualities outlined as a public. Second, Friends of the Earth will be explored according to a similar analysis of origins, function, and characteristics.

_Sierra Club_. The Sierra Club claims a long history of protecting wilderness and the entire planet. Founded in 1892 by John Muir, the group claims to be the “oldest, largest, and most influential grassroots environment organization” in the US, with chapters currently in every state, totaling approximately 1.3 million members (Sierra Club, 2010). The Club demonstrates a key characteristic of publics through their
collective will, expressed through the purposes and goals of the group – ones that have remained consistent since inception. The three major purposes of the organization are recreational exploration, education, and preservation of natural wildlife. The exploration and enjoyment of nature is the driving collective force that bounds the group and encourages membership of likeminded others. This collective motive also encourages the group’s subsequent goals, for example, an educational initiative through the publishing of scientific and informative studies in the Club’s magazine, *Sierra*, enhances the ability to enjoy and explore the outdoors. Similarly, preservation of the natural and human environment includes responsible use of natural resources, according to the group’s mission, which in turn promotes greater exploration and enjoyment of the environment.

In contrast to characteristics of crowds, the Sierra Club’s mission statement additionally expresses the intent to use “all lawful means” to pursue their goals.

A key feature of the Sierra Club that signals its characterization as a public is its organizational structure. This group is designed with a hierarchical structure, including an elected president and a board of directors that determine the group’s activities, policies, and budget. Members not only engage in the election of those who hold leadership positions, but also in the determination of strategy or policy, offering another quality of a public. Through a process of rational discourse, members have the ability to engage in discussion relative to the group’s activities. For example, when a change was proposed to adjust the group’s mission statement to emphasize preservation, approval by the membership was required first (Sierra Club, 2010). Bylaws and standing rules help to construct the structure of the collective group, as well as maintain the ability for rational debate among its members.
Another example of approaching a problem with reasonable discussion occurred in 1949 when the group’s concerns with increased government environmental management grew. A club’s director initiated a conference that brought together government officials, club members, and other professionals, and successfully encouraged the rational debate and willingness to seek compromises that define a public-like group.

Finally, the Sierra Club also encourages group engagement and interaction. This characteristic is in stark contrast to the anonymity maintained by the two crowd-like environmental groups already detailed. From the early years of the Club, wilderness outings brought members together to share in their collective mission to explore, enjoy and learn about their environment. This engagement among members continues today with multiple online communities formed to essentially share experiences and opinion relative to the environment. In the same vein, the organization offers social network engagement as well as forums to share pictures and videos online. Links to the Sierra Club’s social media pages are directly accessible from the organization’s homepage. The encouragement to find the Sierra Club on Facebook and Twitter increases interactivity among its members. Finally, the group outings exploring nature are still organized and their founder’s words are referenced as a motivation to again pursue the collective goals of the Sierra Club (i.e., explore, educate, and preserve).

*Friends of the Earth.* Friends of the Earth is a second environmental group that expresses characteristics similar to public-like groups. This organization is part of

---

2 E.g., climatecrossroads.org, sierraclubactivistnetwork.org, trails.sierraclub.org, ssc.sierraclub.org.
Friends of the Earth International, which constitutes a coalition of international grassroots groups in 76 countries. Each describes their role as “progressive environmental advocates” and their mission as the defense of the environment by focusing on sustainability and social justice. The actions of Friends of the Earth go beyond the conservation and exploration of traditional environmental movements, by focusing on economic forces that cause deterioration and advocating “hard-hitting advocacy campaigns” through “well-reasoned” policy analysis (“Who We Are,” n.d.). Compared to the Sierra Club, the collective will of the Friends of the Earth organization is driven more by what the members deem a struggle for justice in protecting the Earth. Affecting policy change to uphold the health and survival of natural resources often shapes the group’s campaigns.

While this group uses more battle-like rhetoric in advancing their goals to “defend” and “fight to protect” the environment, the simultaneous use of reasoned discussion over policy is a clear quality of a public. As Park (1904/1972) clarified in his early conception of a “public,” such rhetorical pathos may be used to engage and motivate members, however what action results will differentiate the crowd and the public. Friends of the Earth establish themselves as a public by taking rational action through their collaboration with federal agencies and research groups to enact their goals (“Who We Are,” n.d.).

Relative to structure, Friends of the Earth exhibits a bottom-up structure, as many groups that run individual campaigns independent of each other exist within the organization. However, the organization demonstrates public-like agreement as each abides to the global policies set forth for all member groups. Those policies are agreed
upon and an executive committee is elected at a general meeting held every two years, additionally exhibiting the group’s efforts in compromise and engagement among members.

Summary

The characteristics of the groups outlined here, the Sierra Club, Friends of the Earth, Earth First!, and Earth Liberation Front each differentially exist along this public–crowd continuum. Each group displays a variation of characteristics that place them along this continuum with the theoretically ideal public and ideal crowd anchoring each end (see Figure 1). For example, the Sierra Club exhibits even more characteristics of an ideal public than the Friends of the Earth organization due to its emphasis on rational deliberation to make group decisions, and encouragement of getting to know other members. Though Friends of the Earth are a peaceful group, their motivations seen through their discourse to “defend” and “fight to protect” nature elicits less public-like ideals especially compared to the rhetorically peaceful Sierra Club. Figure 1 below depicts the approximate placement of these groups along the continuum.

Earth First! and Earth Liberation Front both exhibit characteristics most like crowds. The ELF is placed closer to the ideal crowd on the continuum (see Figure 1) due to their organizational structure and display of emotion is more similar to the ideal crowd that Earth First! For example, Earth First! does allow members to connect with each other, though they propose anonymity. The ELF describes more strict rules maintaining no leaders, membership databases, or any kind of hierarchy. The passions demonstrated in the discourse of the ELF is slightly more emotive, again pushing this group slightly closer to the crowd end.
Exploring Visual Rhetoric: Analysis and Method

With the four environmental groups generally described according to their group characteristics and relative placement according to the public-crowd continuum, progress toward a valid analysis of these groups is now necessary. Rhetorical analysis is ostensibly a practical means of making sense of the existence of these groups in society, by way of their individual messages, specifically concerning those promoted through mass media channels (Selzter, 2004; Foss, Foss & Trapp, 2002). Insofar as environmental groups are interest groups formed out of a collective desire to change policy or garner attention for alternative policy strategies, then the intertwined relationship between rhetoric and public policy confirm such a method of analysis (Asen, 2010). While the connection between public interest, policy, and rhetoric dates back to Aristotle’s inceptive rhetorical theories (Aristotle/Kennedy, 2007), advancement in approach to rhetorical analysis has been comparatively slow.

This study offers the opportunity to advance rhetorical methods and add to a body of literature that extends traditional rhetorical scholarship to the still growing literature on visual rhetoric in particular (E.g., Foss, 1994; 2004; 2005; Hill & Helmers, 2004; Messaris, 2009). While the first formal calls to expand the scope of traditional rhetorical
criticism to incorporate visual possibilities were prompted by a collective statement from scholars (see Sloan, Gregg, Nilson, Rein, Simons, Stelzner, & Zacharias, 1971), the roots are attributed to Burke (1950) defining rhetoric as symbolic activities. The field of communication has recognized this call as integral to the study of media messages, and has responded with a slow but steady growth in this area of research over the past thirty years (e.g., Foss, 1994; Peterson, 2001; Hope, 2006; Olsen, 1983). Stemming from the work of such influential scholars in visual rhetoric, this study will advance not only the theory of visual rhetoric by exploring its application in a new context (i.e., the environment), but additionally the use of visual rhetorical analysis as a more systematic methodology through the use of the ideograph (McGee, 1980; Cloud, 2004).

Defined as a rhetorical fragment that implicitly references ideological beliefs or cultural associations, an ideograph develops meaning through its various cultural and social applications. While M.C. McGee (1980) first developed the concept being specific to language, scholars since then have reinterpreted and reconceptualized the ideograph, recognizing images as rhetorical terms. Thus, the ideograph in both forms has been used in extant literature to serve as an analytical tool for rhetorical criticism (e.g., McGee, 1990; Cloud, 2004; Edwards & Winkler, 1997), and as this study will demonstrate, it may also be utilized as a tool for empirical measurement.

The first of three significant motivations for this now thriving field involves the enhancement of general rhetorical theory by generating greater comprehensiveness. As previously noted, the scholarship of visual rhetoric formally developed out of a priority set forth by the Report of the Committee on the Advancement and Refinement of Rhetorical Criticism, to address a more comprehensive range of rhetorical interactions
such as media messages, song, gestures, and cultural symbols among others (Sloan, et. al., 1971). Though this rhetorical expansion developed slowly, the words of Sonja Foss (2005) echo the earlier Burkian notions and prove the need for academic progress, while continuing to justify the study of visual rhetoric: “To restrict the study of symbol use only to verbal discourse means studying a miniscule portion of the symbols that affect individuals daily” (p. 142). The following two factors driving visual rhetorical scholarship touch upon these affective and cultural aspects Foss alludes to, and simultaneously demonstrates why the field is now proliferating.

The second, though nonetheless significant, factor for the necessity of valid visual rhetorical theory and methodology relates to the cultural and even normative implications of daily experience with images. A proliferation of communication technologies, being highly visual in nature, generates a demand for such analysis (Olson, 2007; Foss, 2005). The pervasiveness of images through advertising, entertainment media, digital media, among others, constitute a largely symbolic environment with substantial influence on not only individual attitudes, but potentially on groups, and public opinion to a higher level.

Third, compared to verbal or discursive communication, the study of visuals allows access to a broader range of human experience (Foss, 2005), even those of a historical nature (Olson, 2007; Finnegan, 2005). For example, Messaris and Abraham (2001) point out specific properties of images, distinct from language, that can produce similarly distinct experiences. That is, images have an analogical quality that demonstrates the human brain’s ability to work in analogy, understanding meaning in visuals that are not exact replicas of reality, such as cartoons or designs. Visuals are
consequently thought to exhibit a verisimilitude that words cannot always provide (Hope, 2006). Such complex meaning makes for interesting and necessary analysis. Secondly, visuals lack syntax that is characteristic for language (Messaris & Abraham, 2001). This necessitates interpretive understanding on the part of the viewer that may be less explicit than words. Finally, human experience may be communicated in nonlinear, multidimensional, or layered ways through visual imagery as opposed to the linear form of language (Foss, 2005). These characteristics allow for a distinct investigation of human experience.

Considering the study of visual rhetoric is necessary for a full understanding of human experience, the focus must now turn to the centrality of such rhetoric in the social problems of public opinion groups. From a theoretical lens first, it is necessary to explore the meaning of the visuals used by such groups, the environmentalists in this case, not just by the inherent properties of images, but how the creator and viewer perceive them (Messaris, 2009).

The ideograph, theory and method:

Visual interpretation methods have not advanced at the same pace as theory, creating challenges for valid analyses. However, this situation offers a unique opportunity to add to a growing body of literature that has recognized the need for a more accurate understanding of the persuasive means available to images. Drawing from extant literature that describes how the role of images can be analyzed in their influence on opinion and behavior (e.g., Cloud, 2004; Edwards & Winkler, 1997), an established method will be further clarified. Edwards and Winkler (1997) describe how images can act as a representative form, or one that “transcends the specifics of its immediate visual
references and, through a cumulative process of visual and symbolic meaning, rhetorically identifies and delineates the ideals of the body politic” (p. 295). This idea is essentially derived from what McGee (1980) first termed the *ideograph*.

The concept of the ideograph is detailed as one generated out of a philosophical discussion regarding the power of symbolism and political language in creating tangible social forces (Burke, 1950; Mead, 1934; Dewey, 1969). Essentially, it is a type of language that manifests ideology. This often can be seen in slogans, quotes, and sayings, making up a vocabulary of “ideographs” that are a façade of political philosophy. These are words and phrases brimming with ideological meaning that are learned from cultural conditioning, creating real power to maintain patterns of social consciousness in a society that reliably utilizes such ideographs. McGee offers particular lexical examples such as “liberty,” “equality,” and “freedom of speech,” among others in American society. This concept has been influential in rhetorical scholarship, with scholars have continued analyzing such ideographs as “right to privacy” (Hasian, 2001), or “clash of civilizations” (Cloud, 2004), namely for their persuasive and influential capacity.

Ideographs are characteristic of society, and therefore need not be purely political, but culturally encompassing as well (Bennett-Carpenter, 2009). The ideological and symbolic meanings of these rhetorical forces are learned by societal members at early ages, ultimately existing within the long-term mass consciousness. The term is important not only to rhetorical analysis, but to understanding group behavior. McGee saw the need to create such a term to offer a model that accounts for ideology and myth involved in the manipulation of symbols relating to the determination of a mass conscious. Other scholars describe corresponding and expansive definitions, as Cloud (2004), for example,
describes ideographs as rhetorical terms that “sum up and invoke identification with key social commitments” (p. 288). Furthermore, Condit and Lucaites (1987) identify ideographs as both units of persuasion and warrants for behavior and action, pointing out the persuasive capabilities of such rhetorical terms.

Recognizing that ideographs are empirically manifested in language that communicates mass consciousness, the ideograph allows for analysis of such powerful terms that shape behavior and thought. The implications of ideographs are significant because they are born out of a human social conditioning that allows a vocabulary to function as reasons or excuses for behavior and belief (McGee, 1980, pg 6). McGee points out that a claim warranted by such ideographical terms as “law,” “tyranny,” or “liberty,” will generate predictable and unconscious reaction. While social control through rhetoric is not necessarily a sensational idea, the analysis of political or social rhetoric is affected, as such ideograph terms are taught to be set apart from typical vocabulary, and thus contain different meaning.

Analyzing ideographs is no simple task, as definitions are never inflexible, and situations requiring its use are never perfectly similar. While the fundamental meaning of any particular ideograph would not waiver, the situational meaning may “expand and contract” over time (McGee, 1980, p. 14). The description of an ideograph depends on certain key elements. First, the isolation of a society’s ideographs, that is separating them out from their context. Second, the exposure and analysis of the diachronic structure, or how that ideograph has come to exist and the evolution of its meaning. Finally, a characterization of the synchronic relationship among the ideograph and its particular
context is necessary as well. That is, the meaning of the ideograph in its immediate context and environment should be analyzed.

The purpose of ideographs is to establish the linkage between the dominant ideology of the society or group and the consciousness of its members. These concepts are important because they show the claim of social reality existing in a vocabulary of complex, abstractions which refer to and invoke a sense of community or society. They are persuasive rhetorical forces that can command group thought and behavior, warranting the need for recognition and examination (Condit & Lucaites, 1987).

By reinterpreting McGee’s (1980) language-specific concept with a visual lens, and incorporating the concept of representative form, Edwards and Winkler (1997) redefine McGee’s concept to include visual images, pointing out that visual images have become discourse fragments. Therefore, the visual adaption to this term, the visual ideograph, is defined as a visual representation that can be used in political and cultural discourse in the same ways as McGee originally outlined. Edwards and Winkler were not alone in negotiating the implications of ideographs in visual form. Moore (1996) explored the cigarette in advertising images as an ideograph in itself, and Palczewski (2005) additionally delineated the visual arguments of anti-woman suffrage postcards from the early twentieth century as ideographical. In another significant example, Cloud (2004) recognized that images are central to the constitution of verbal rhetorical vehicles such as ‘clash of civilizations’ in her study on the portrayal of Afghan women. According to Cloud, and echoing McGee, “Either visual or verbal, an ideograph is a commonplace abstraction that represents collective commitment, warrants power and guides behavior, and is culture bound” (p. 288). A robust literature is beginning to form
that recognizes visual representations can emphasize collective commitment, establish claims of power, or potentially frame cultural norms for the thought and behavior of groups, as do lexical ideographs.

This extension to the visual realm is a natural and beneficial development, as political consciousness can infiltrate various aspects of media in many ways. Taking this view, the visual ideograph can be the point of analysis for the proposed study of environmental opinion groups. As visual images are by nature, symbolic, their existence as ideographs is pure and ripe for examination – even alongside of verbal or textual ideographs.

Another critical method adopted from Cloud is the use of multiple images in order to create an index to capture broader rhetorical meaning. Selecting images from each environmental group’s website incorporates the meanings that each group individually chose to represent their group, ideals, and members. Additionally, images from the groups’ websites ensure that the chosen visuals are the most widely seen by members or those that frequent each group’s communication channels. Finally, the selection of six images from each of the four groups offered the range and depth deemed appropriate for a visual rhetorical analysis, and additionally lent itself easily to an experimental analysis. The images used in the public visual ideograph can be seen in Appendix A.

*Ideograph in context*

It is necessary to specify that the use of the ideograph in this study works best as a general conceptualization of how the outlined environmental groups function as either crowds or publics. However, the strict sense of an ideograph requires ideological connection to the context – be it textual or visual. That is, for these chosen images to act
as an ideograph, a deep connection and understanding of the groups, their motivations, goals, and actions would be warranted. Since this is not the case, and the participants’ awareness of and connection to the differentiated groups was not measured, the presentation of the visual images is not precisely an ideograph. For the images to distinctly act as an ideograph, a particular population would have been needed as well as certain additional information and context. For example, the sample necessary for the ideograph to be truly valid, would be one that has distinct experience with these groups and a deep enough understanding of their influence to produce ideological associations. Citizens of the American Northwest that have had the most direct contact with EarthFirst! and the ELF would for example, be an appropriate population to use such an ideograph. Likewise, members of each group would be suitable as their connection warrants the type of profound relationship necessary for ideological meaning to arise.

This study was conducted in such a way as to use the ideograph as a supportive instrument for the experimental methodology. Using Cloud’s method (the index of multiple visual images that constitutes an ideograph), a structured and valid process for choosing images as experimental stimuli was allowed. The concept of the ideograph was used as a guide for understanding the ideological implications that images can have, even if these images presented in the study do not constitute a true ideograph. Experimentally, the study benefited by being able to isolate the images and measure the visual influence on affect, attitude, and behavioral intentions. In this sense, the ideograph was a useful guide and methodological tool.

The images that form the public visual ideograph were taken from the websites of the public-like environmental groups Sierra Club and Friends of the Earth during the first
week of March, 2011. These images are logos or images typically seen on each group’s website pages, intending to stand for the unity of the group and a reflection of the type of environmental consciousness that these groups exhibit. Image (1) is the Friends of the Earth logo. The simplicity of green color and circular shape conveys the commitment to the health of Earth. Circularity represents both the shape of the Earth, as well as the commonness of the goal of Friends of the Earth members. The shape of the circle similarly denotes an influence on each other, given the noticeable attachment where the circle links together. Just as the circle commonly denotes unity, mutual influence, and friendship, the color green is the most commonly utilized color to represent environmental concerns. The lighter, brighter green color used here in the Friends of the Earth logo demonstrates a positive sense of mission. This shade of green represents a healthy, fresh, and hopeful sense of environmental unity. The simplicity of such a logo additionally offers an idea of modernity, as the Friends of the Earth is a newer environmentalist group with purportedly progressive ideals.

Image (2) is the logo for the Sierra Club. This logo, or similar forms of it, have been in existence for the group since the late 19th century. Accordingly, the image projects a sense of history and stability as it portrays a Sequoiadendron giganteum tree, known to be the world’s largest tree. Even without such knowledge, the tree is depicted as the dominating central feature, emerging out of a white background with mountains and tree tops as secondary, smaller surroundings. The use of a deep, medium-dark green color additionally conveys a deep and serious commitment to nature. Resting on a white background, the central tree conveys power and importance, alluding to the awe-inspiring versions of nature in reality. The elliptical encasement of the logo additionally conveys a
sense of protection for the wonders of nature, and the setting inside the elliptical represents more than just the environment, but wild nature. The Sierra Club’s logo conveys the group’s goals and is suitable for the public ideograph as it conveys these positive features of nature and favorable goals of protection and enjoyment of the environment.

Image (3) is strikingly different from the first two images, in type and meaning. Image (3) is a photograph of a group of people gathered outside of The White House in Washington, DC with signs and banners. This image is also appropriate for the public ideograph as it portrays a group of people peacefully assembled standing together for such things as their signs suggest: “Safe, Clean Energy Now” and “We Want a Carbon Cap.” Many members are wearing green hard hats and a single member is standing before them, one hand raised, and one hand with a mega-phone. The speaker seems to be rallying the group, with the members looking on, calm and supportive. In sum, this photograph suits the public characteristics quite literally, as it portrays a public-like group gathered together in a like-minded and rational way in order to accomplish group goals of environment-protecting energy objectives.

The fourth image used in the public ideograph is also a photograph. Image (4) portrays a vast meadow with a windmill in the center, covered by billowing clouds in a light blue sky with other windmills seen in the distance. In multiple ways, this image depicts the vastness of nature. A great open field displays green grass, a dirt area, and a huge open sky, stretching across the horizon, taking up nearly half of the image itself. The naturalistic colors and setting convey a realistic view of the potentials that nature offers. The fertile ground of the meadows, and the power of the windmill to reign in the
product of the rolling clouds. This depiction of power however, is positive, as is indicated with the pleasant colors and positive meaning of clean energy.

Image (5) is a photograph of a low river running through mountainous canyons. This image is slightly different from the others relative to the colors and the subject matter of the image. While image (5) continues to depict appealing aspects of the environment, this image shows rolling red-brown canyons with a greenish-blue, low river bending around the great landmasses that go on in the distance. White clouds fill the soft blue sky at the top of the image, completing an eye-arousing palette of colors. A variety of colors in this collection of images reflects the diversity in nature, expressed through the environmental groups. The Sierra Club and Friends of the Earth both aim to protect and honor the environment, and this image is an example of how these groups seek to demonstrate the beauty of untouched nature to remind members and potential members of what is out there to explore and protect.

Finally, image (6) is a photograph that portrays only the lower part of a tree trunk, with a single white flower emerging from its base. The roots of the tree are seen spreading down into untamed ground and a forest of brown and green trees compose the backdrop for the tree and its solitary flower. The close range of this photograph depicts a quite large tree with a soft, barkless image. The solidarity of the white flower coming out of the tree represents nature’s ability to grow despite odds perhaps against it. The white color of the flower and the brightness of the sun convey positivity and hope in this image, as the white represents peacefulness that arises out of nature. The mode of this image, in photographic style reminds the viewer that life in nature is abundant, occurs in all places, and against all odds.
All together, the previous six images constitute a visual ideograph for public-like environmental groups that symbolizes a positive commitment to protecting, honoring, and exploring nature.

The visual ideograph constructed for the crowd (referenced in Appendix B) also is constituted of six images taken from the websites of both Earth First and the Earth Liberation Front during the first week of March, 2011. Image (1) presents the logo for the group *Earth First!* The image includes a raised fist and the tag line, “No Compromise in Defense of Mother Earth!” Set on a black background, the logo is a drawing-like image. A raised fist shown with fingers clenched is encompassed within a circle all of the same bright green color. Shadows and lines of the fist are in black, creating a fearsome and powerful image. The group name rounds the top half of the green circle, with typeface in a bright yellow, and capitalized letters. The tagline is portrayed wrapping around the bottom half of the circle in lowercase letters in a bright red color. Although green color, generally associated with the environment, is used here, its combination with black, bright red, and yellow do not communicate colors of the environment. While the focal point is the fist, the brightness of the name and tagline stick out due to the use of color as well as the use of exclamation points punctuating their position. Together, this portrays a sense of emotion wrapped around the violence that the raised fist conveys. As the logo for this group, the intention of this image is to display the exclamation of power and potential violence the group stands for relative to the “defense” of the earth.

The second image is also a logo, this one for the *Earth Liberation Front.* This logo again is in the style of a drawing, as the background is an unshaped marker
sketching in light blue color. The focal point is the horizontal elliptical shape, colored in greenish-yellow, with black outlining the shape. Inside the elliptical two halves are outlined as well, creating dimension as an orange and yellow lightning bolt cuts through the elliptical shape. The image conveys a low quality feeling to it, as though hand-done, with imperfect shape and lines. In meaning, the lightning bolt conveys a sense of danger, though this is offset by the cartoonish nature of the image. While the light blue background color may represent something sky-like, and the elliptical shape may symbolize the Earth, there is little evidence that these shapes demonstrate anything related to the environment other than the lightening power of a storm. So rather than a peaceful earth, a sense of storm is conveyed through this image.

Image (3) depicts a more naturalistic far-away image of the Earth from outer space, with a cage encompassing the Earth. A large, rusty looking lock is at the center of the image, with a human’s hand shown holding the key in the lock. The image of the caged and locked Earth is set on a black backdrop, creating a dark and dramatic look. Interpretation of this image is ambiguous. A caged, locked Earth may imply protection of the planet, however, it also implies defense from other influences, or imprisonment of the Earth and its inhabitants. While all images are up to interpretation of the viewer, both meanings elicit a fearful message of loss of freedom. Additionally, the seriousness of a lock and cage conveys a lack of compromise in such a message, another characteristic of crowd-like groups.

Image (4) is another cartoon-style drawing depicting a male elf-like creature, dressed in green with elf-like characteristics of large pointed ears, curled and pointed toes, and orange hair and beard. The elf is shown draped with ammunition and holding a
gun-shaped weapon with a stopper plugged in the end. A belt buckle is visible with the letters ELF (the acronym for the Earth Liberation Front), and the letters are repeated to the side of the elf, leaving no room for confusion about what this group is called. The image is a higher quality drawing than the logos used previously, with great detail in the design. Again, this image fits the ideograph for the crowd-like groups as the theme of violence and danger continues with the weapon and ammunition displayed in this image.

The fifth image portrays an outstretched male arm holding an unrealistic depiction of Earth in its hand. A large tattoo of black symbols is displayed on the forearm, all on a backdrop of a dark blue and black with a swirling white image of a universe. It is as though the human’s outstretched arm is holding the Earth in a star-speckled swirling universe. Though the meaning of the tattoo is indecipherable, the meaning of the image overall seems to allude to the idea of having “the whole world in your hand.” The dark and swirling sky however elicits an ominous sense from the image. Again there is an ambiguity concerning if the hand is protecting the Earth. In this sense it seems as though it is the human taking the position to defend the Earth from other influence.

Finally, Image (6) is a simple picture of many dark green trees. The repetition of fir-like trees is consistent throughout the image, with dark shadows in between the trees that consist of various shades of dark greens. This image was a dominant visual on the Earth First! website and was thus chosen for its prominent visual influence. Additionally, the image reflects the dark nature that suits the ideograph developed here for the crowd-like groups. A thick and dark forest with no other elements of nature is a rather foreboding conception of nature. While this image offers nothing other than trees, it does suggest that the images of nature used by the crowd groups are not the realistic
and photograph type of images used by the public groups. The trees seen here are not as cartoonish as some others, however their monotony is depicted unrealistically.

Overall, these six images constitute the ideograph for the crowd suitably because their meanings together and individually offer a sense of danger or fear, emotional reactions of violence characteristic of crowd-like groups. The dark and ominous nature of the images also implies the groups’ motivation to defend the earth (rather than protect) in any way necessary.

**Use of Ideographs in Experimental Research**

This study recognizes a unique opportunity to advance multi-method research (Morse, 2003; Jick, 1979). The ideograph, developed through a qualitative visual rhetorical analysis, can easily be employed in experimental methodology, thus offering a quantitative exploration of the effects or outcomes of visual rhetoric as well. While qualitative and quantitative approaches are both diverse in approach and distinct in epistemology, the two research methods complement each other, offering richer data than just the one alone (Benoit & Holbert, 2008). In fact, a mixed-method approach can serve various purposes for communication research overall (see Greene, Caracelli, & Graham, 1989). Specific for this study, triangulation offers corroboration for the rhetorical analysis, while the complementary methods elaborate and enhance the findings from the rhetorical and the experimental approaches. Finally, the use of mixed methods for explanation purposes seeks to understand differentiated public opinion groups and their potential influences on society, to a greater extent through the breadth and depth of this multi-methodological research.
Advancing mixed-method research is an important contribution of this study, as each method seeks to determine distinct aspects of group behavior. That is, the rhetorical analyses offer greater understanding of the meaning and context of each public and crowd group, developing insights for how each group makes sense of their place within the environmentalist movement. On the other hand, the experimental method measures the differential visual influence of crowds and publics and generalize across contexts, characteristic of quantitative methods (Benoit & Holbert, 2008). The combination of these approaches extends a far more thorough investigation of human behavior.

A major distinction between the discussion of publics and crowds is the relative influence of emotion (more specifically, negative emotion) in crowds while there is less emotion demonstrated in publics. Thus, the experiment focused primarily on affective responses to the visual presentations of crowd-like versus public-like environmental groups. In particular, the focus will be the generation of positive and negative discrete emotions (Nabi, 2002).

Building off of the theoretical rationale offered for the distinctions between crowd-like and public-like environmental organizations, the following hypotheses are offered:

*H1:* Crowd-oriented visuals evoke greater negative emotional responses than public-oriented visuals.

*H2:* The public-oriented visuals evoke greater positive emotional responses than crowd-oriented visuals.

In addition, there is a general question of whether the visual presentation of the crowd-like and public-like groups generate differential effects on general attitudes toward
the environmental movement and the likelihood of giving money or attention to environmental organizations (i.e., behavioral intent). As a result, the following research questions are offered:

\[ RQ1 \]: Is there a difference in attitudes toward the environmental movement in the crowd versus public conditions?

\[ RQ2 \]: Is there a difference in behavioral intentions toward the environmental movement in the crowd versus public conditions?

\[ RQ4 \]: What is the nature of the communication influence (direct and indirect) processes relative to affect, attitudes, and behavioral intentions?

**Experimental Methodology**

To extend this triangulation of methodologies, an experiment embedded in an online survey was conducted to develop a broader understanding of the differentiated visual influence of crowd-like groups versus public-like groups. The survey was disseminated to multiple communication classes at a large Midwestern university. Participants were offered extra credit in their courses for completing the survey between 04/13/11 and 05/04/11. A total of 200 participants began the survey, though 14 did not complete it, yielding a total \( N = 186 \), with a disproportionate amount of females; 69% female, to 31% male. Questions regarding demographics, political, and social ideologies were completed first, followed by the experimental manipulation of viewing the visual ideographs. Subjects were randomly assigned to view either the six images making up the public ideograph \( (N = 91) \) or the six images of the crowd ideograph \( (N = 95) \). Regardless of condition, participants were asked to: “Please take a few moments to view each of the images carefully.” Following the viewing, a manipulation check asked for a
thought listing relating to the images overall, asked as: “Please list any and all thoughts that presently come to mind in relation to the images you just viewed.” This offered individuals to react to images in specific or in general, as their reaction saw fit. The final element of the experimental study consisted of measures of affect, attitude toward the environment, and future behavioral intention regarding the environment.

**Measures**

*Emotion.* Affect was measured using a 7-point discrete emotions Likert scale (Nabi, 2002), which gauged the levels of three negative emotions (guilty, angry, and sad) and three positive emotions (happy, compassionate, and hopeful), promptly after viewing the images. The 3-item negative emotion measure created a reliable index, Cronbach's α = .892, M = 2.13, SD = 1.15. The 3-item positive emotion measure additionally exhibited high internal consistency, Cronbach's α = .957, M = 3.41, SD = 1.68.

*Attitudes.* Attitude toward the environment and the environmental movement was measured with items including personal importance, national importance, awareness, and personal feelings of relevance to create an overall index of attitude with good internal consistency, Cronbach’s α = .974, M=4.95, SD=1.07.

*Behavioral intentions.* The analyses also examined behavioral intentions toward the environment and environmental movement using a 7-point Likert scale. The items included items measuring participant likelihood to: look for information about the environment, read a news story about environmental issues, discuss issues about the environment with acquaintances, donate money in support of personal viewpoint, contact a news organization to express opinions, sign a petition supporting personal viewpoint,
and forward an email or website relative to the environment. Together, the behavioral intent questions create a reliable index, Cronbach’s $\alpha = .970$, $M = 3.50$, $SD = 1.30$.

**Analyses**

In order to test the hypotheses put forward and the series of research questions, a series of ANOVA tests and regression analyses were completed. ANOVA tests were run to compare positive and negative affective reaction for both the public and the crowd ideographs. Additional ANOVA tests were run for attitudes and behavioral intentions as respective dependent variables, relative to experimental condition as independent variable. A series of four Ordinary-Least Squares (OLS) regression equations were constructed to address the final research concerning the potential processes of communication influence stemming from the competing ideographs.

**Results**

First, an ANOVA test was used to assess that negative emotion differed across the public ($M = 1.90$, $SD = 1.06$) and the crowd ($M=2.35$, $SD = 1.20$) conditions, $F (1, 184) = 7.21$, $p < .05$, with the crowd condition generating significantly greater negative affect. This finding offers support for hypothesis 1 as greater negative affect resulted from the crowd condition. Hypothesis 2 was additionally supported, as positive emotion differed significantly between the two conditions, with the public condition generating significantly greater positive affect than the crowd condition, public ($M = 3.83$, $SD = 1.73$), crowd ($M = 3.01$, $SD = 1.53$), $F (1, 184) = 11.65$, $p < .001$. In addition, it is worthy to note that the positive affect levels were higher than the negative affects levels, regardless of condition.
There was no main effect of the experimental condition on attitudes (public, $M = 5.03$, $SD = 1.11$; crowd, $M = 4.88$, $SD = 1.03$), $F (1, 184)=.865$, $ns$. Furthermore, behavioral intent also showed no effect from experimental condition (public, $M = 3.59$, $SD = 1.35$; crowd, $M = 3.42$, $SD = 1.26$), $F (1,184) = .875$, $ns$. Given these findings, research questions 1 and 2 did not produce many significant insights concerning the direct effect of the experimental condition on the higher end of the hierarchy of effects (McGuire, 1989). Further analyses were completed to generate a deeper understanding of the communication process occurring, and, more specifically, to assess whether the competing ideographs had meaningful indirect effects on the higher end of the hierarchy of effects.

Regression Analyses: A Communication Process

Understanding the overall communication process is an important goal of this study, and will be addresses through an assessment of RQ4. The experimental condition, either seen through the public ideograph or the crowd ideograph, can influence positive and/or negative emotion, and additionally can have indirect influence on attitudes and behaviors regarding the environmental movement. Positive and negative affect can also have direct effects on both attitudes and behaviors as well. The following figure depicts the communication process model (see Figure 2).
Regression analyses were conducted to evaluate the relationships between these variables. First, positive affect was regressed on the experimental condition to reveal a significant influence stemming from the ideograph manipulation (crowd coded high), $\beta = -.24, t(184) = 3.41, p < .001$. The negative beta weight reveals the public ideograph to produce more positive affect. Examining negative affect regressed on the experimental condition, it is seen that the ideograph manipulation had significant influence on negative affect, $\beta = .19, t(184) = 2.69, p < .01$. The positive beta weight indicates that the crowd ideograph generated more negative affect in the participants.

Turning now to the influence on attitudes toward the environmental movement, which was regressed on the experimental condition and affect (both positive and negative), there is no significant direct effect on attitude from the experimental condition (as already indicated in earlier ANOVA results), $\beta = .01, t(182) = .066, ns$. However, affect has a statistically significant influence on attitude, with positive emotion ($\beta = .42,$
\( t(182) = 6.06, p < .01 \) as slightly more influential than negative emotion, \( \beta = .16, t(182) = 2.61, p < .05 \). Regarding the influence on behavioral intentions directed toward the environmental movement, no significant direct effect from the experimental condition is demonstrated, \( \beta = .001, t(181) = .011, ns \) (once again, as witnessed with earlier ANOVA results), nor is negative affect a statistically significant predictor of the criterion variable, \( \beta = .08, t(181) = 1.34, ns \). However, a significant effect on behavioral intentions is seen stemming from positive affect, \( \beta = .18, t(181) = 2.94, p < .01 \), as well as attitudes, \( \beta = .58, t(181) = 9.64, p < .001 \). These analyses overall suggest affect plays an important role in this communication process. More specifically, the public ideograph demonstrates strong influence on positive affect, in particular, determining attitude and behavioral intent toward the environment.

The results allow for many possible paths of influence of the competing ideographs (public v crowd) on the outcome measures of interest to this study. They are specifically outlined in the figure below (see Figure 3).
Within this communication process model, there are six distinct scenarios in which mediation based indirect effects are possible (Hayes, 2009). The first two deal with affect (both positive and negative, distinctly) mediating the relationship between the experimental condition and attitude. Additionally, positive affect and negative affect can also act as mediators between the experimental condition and behavioral intent (i.e., two additional mediation scenarios). Finally, attitude can also act as a mediator first between positive affect and behavioral intentions, and secondly between negative affect and behavioral intentions. Mediation analyses using the MacKinnon, Lockwood, and
Hoffmann distribution of products test were completed to address these indirect effects (see Holbert & Stephenson, 2003).

It is confirmed that positive affect acts as a statistically significant mediator between the experimental condition and attitude, $z$-score product ($P$) = 20.66, $p < .01$; standardized indirect effect = -0.10. Negative affect is also a statistically significant mediator in the process, $z$-score product ($P$) = 6.08, $p < .01$; standardized indirect effect = .03. Thus, it can be shown that the competing affect reactions to the two ideographs counterbalance one another in terms of generating indirect effects of the experimental condition on attitudes, but the indirect effect working through positive affect is much stronger than the path through negative affect.

Relative to the role of affect as a mediator of the experimental condition’s influence on behavioral intentions, it is indicated that positive affect acts as a mediator between experimental condition and behavioral intentions, $z$-score product ($P$) = 10.03, $p < .001$; standardized indirect effect = -.04. Negative affect in this relationship acts as a statistically significant mediator as well, $z$-score product = 3.62, $p < .05$; standardized indirect effect = .02. However, neither of these indirect effects on the highest reaches of the hierarchy of effects are as strong as the indirect effect of experimental condition on attitudes through positive affect. Overall, the indirect effects of experimental condition weaken as we move higher up the hierarchy of effects.

Finally, concerning the indirect effect of affect on behavioral intent as working through attitudes, mediation analyses confirm attitudes mediate the relationship between positive affect and behavioral intent, $z$-score product ($P$) = 58.56, $p < .001$, standardized indirect effect = .24. This indirect effect is by far the largest detailed in the
communication process model. Attitude also acts as a mediator between negative affect and behavioral intent, $z$-score product ($P$) = 22.08 (standardized indirect effect = .09). These indirect effects serve to enhance the total effect (direct and total indirect) of affect on behavioral intentions within the model.

Overall, the results show the experimental condition has a significant influence on affect (and the direct effects stopped there) – those that viewed either public or crowd ideographical images experienced very different affective responses. Positive affect, specifically, then takes over as an important mediator in the extended process of influence relative to attitudes and behavioral intent toward the environment and the environmental movement.

**Mixed-Method Triangulation**

It is important to consider how the use of the mixed methods employed in this research effort functioned together in (un)supportive ways. Using the qualitative method of visual rhetorical analysis in combination with the quantitative-oriented experiment allowed for unique insights to emerge in relation to affective reactions to visual stimuli. The visual rhetorical analysis first demonstrated a distinctly positive, hopeful, and healthy depiction of nature generated by the public ideograph. Specific uses of color and shape alluded to a unity in optimism relative to the Earth and its resources. The connotation of renewable resources, and the vibrant life provided by the environment, contributed to an overall positive and pleasing sense from the public ideograph. These rhetorical findings were in fact corroborated by the experimental findings relative to the influence of the public ideograph and positive affect. Not only did the public condition generate greater positive affect than negative, but positive affect had a statistically
significant influence on both attitudes and behavioral intentions as well. Positive affect additionally acted as a statistically significant mediator in the relationship between the experimental condition and attitudes, producing a greater indirect effect than negative emotion. Furthermore, the indirect effect of affect on behavioral intent mediated by attitudes resulted in the largest indirect effect of the communication process. Overall, we see the visual rhetorical analysis regarding the public ideograph as predicting and supporting the effects seen relative to positive affect in the experiment.

The visual rhetorical analysis of the crowd ideograph shows a similar relationship to the experimental findings. Uncovered in the rhetorical analysis was a foreboding sense produced by the dark colors and violent or storm like figures. Guns, lightning bolts, fists, and cages illuminate the negative connotations the crowd ideograph displayed. Confirmed by experimental results, the crowd ideograph indeed produced greater negative affect than the public ideograph. Negative affect additionally had a statistically significant influence on attitudes, though to a lesser degree than positive affect. Further, negative affect performed as a statistically significant mediator in the relationship between the experimental condition and attitudes and well as the experimental condition and behavioral intentions. Again we can affirm the complementary nature of the mixed methods utilized here, given the expected results offered by the visual rhetorical analysis were indeed substantiated by the experimental findings.

Discussion

The true implications of this study are rooted in the application of multiple methodologies in order to advance knowledge not only about human behavior in this particular context, but also in the field of mixed-method research. Combining
quantitative and qualitative methods can capitalize on the advantages of each, and offset their respective weaknesses as well. For example, in this study, the rhetorical analysis of the images used in each ideograph, and the descriptive analysis of each environmental group, offers a level of understanding about the place and context of each group, as well as the meaning of their visual depictions. The implications of the visual ideographs of the crowd and public groups are suggested in qualitative analysis, but empirically tested in the quantitative method of experimentation. Triangulation techniques have long been known as beneficial practice among researchers (e.g., Campbell & Fiske, 1959; Denzin, 1978), and the methodological triangulation that this study offers supports the importance of this practice in communication research.

As previously noted, qualitative and quantitative methodologies are based in distinct, differentiated approaches and overall paradigms. While there is a storied history of a paradigm debate (see Popper, 1968), the state of communication research is currently more supportive of mixed methodologies despite the ontological and paradigmatic differences (Benoit & Holbert, 2008). In this study, for example, the qualitative approach of a visual rhetorical analysis is inductive, and recognizes the ontological nature of having multiple possible truths in the researcher’s construction of reality. On the other hand, the quantitative nature of the experiment used in this study recognizes one truth, one objective reality, yet the two methods work in tandem, essentially corroborating the findings of the other. For example, the cursory discourse analysis of the four environmentalist groups established their categorizations as either a public or a crowd. The visual rhetorical analysis in turn analyzed the meanings of the images used by the groups, creating an ideograph that resulted in a fitting portrayal of the groups according
to their placement along the public – crowd continuum. Finally, the experiment tested the qualitative observations of emotional behavior and emotion in image found through the environmentalist groups’ self-created media. This final method confirmed the validity of the affective reactions theorized in the qualitative method.

Together, this methodological triangulation successfully verifies the compatible nature of the chosen research methods. While this is but one simple instance of mixed methods research, the outcome is favorable concerning the continuation and encouragement of similar methodological practice. The field of communication overall can benefit from combining qualitative and quantitative methodologies, as both share the same commitment to furthering our knowledge of human behavior.

In addition to the benefits of methodological triangulation, this study offers an advancement in the methodology of visual rhetorical analysis. Following in the footsteps of other rhetorical scholars (McGee, 1980; Cloud, 2004; Foss, 2005), the ideograph was used not only as a theoretical tool for understanding the greater meaning of the public and the crowd environmentalist groups, but also for establishing a method of analysis. Creating an ideographical index by way of multiple images representative of each group, the visual rhetorical analysis was able to come to fruition and act as a stimulus material for the experimental portion of the study. Essentially the ideograph as a visual index further supports not only the field of visual rhetoric but also the practice of mixed methodology.

The findings relative to affect in the experimental portion of this study offer interesting implications as well. Affect was found to be an important influence in the communication process generated by the public and crowd ideographs. It was found that
positive affect and the public ideograph, in particular, had significant influence on attitude and future behavioral intentions. Relative to the work of environmentalist groups, these findings can be consequential to their continued practice of self-representation. That is, the use of images in line with the public ideograph (those positive, protective, and reverent images), the greater possible influence they may have on viewer’s attitudes and behaviors toward the group’s common goal. These implications may be of specific interest for the public relations of the Sierra Club and Friends of the Earth, as well as groups similar to them. Their decisions in visual representation is highly likely to be a conscious and thoughtful process. This study would validate their use of imagery as having a distinctly positive influence on viewers, and even positive influence on their attitudes and behaviors toward the groups’ goals.

More generally speaking, the role of emotion in communicative processes has been of increasing interest in the communication discipline (see Nabi & Wirth, 2008; Nabi, 2007). Nabi (2009) argues for the substantial value of including emotion into any theory interested in predicting behavioral effects of the media. While visual rhetoric as a theoretical perspective is not a predictive theory (Foss, 2005), and no predictive theory was argued here, the consequence is still demonstrated that emotion holds significant benefits for studying communication processes. Furthermore, emotion and the visual realm continues to be a ripe area for growth in communication research.

The use of discrete emotions in this research further verifies the utility of this established method of emotion measures. As emotions function to help individuals deal with their surroundings, affective reactions may be measured as they are recognized by an affect-inducing stimulus (Lazarus, 1966; Dillard & Peck, 2000). To the extent that the
images of the crowd ideograph and the public ideograph present varied stimuli, the affective reaction of individuals is expected to help them respond and deal with the visual information offered. Because negative emotions have demonstrated the greatest effects in communication research to this point (see Nabi, 2007; Dillard, 1996), it was intriguing to find positive affect generating the greatest influence in this study. It is however, a satisfying result considering the context. The visuals of public-like groups that induced the influential positive affect are mainstream, popular groups whose mission entails only beneficial outcomes for the environment. On the other hand, the crowd-like groups were more fringe groups that attracted attention based on the destruction they caused. Future research focused more specifically on fear may unearth interesting results in the context of these environmental groups as well.

This study indeed has certain limitations and weaknesses. A qualitative analysis of visual images is limited in scope and depth. Only twelve images between the crowd and public were collected for analysis, by the discretion of the researcher. This of course does not offer a full and complete visual analysis of each of the environmental groups investigated, but merely enough to establish a basis for the questions of interest. Furthermore, as images bear an iconic relationship with the ideas they express, those ideas, as the ideas presented here relative to the crowd and public environmental ideographs, may not represent one unequivocal meaning. Certainly, other researchers may consider differing meanings or connotations in a visual analysis, which may offer additional areas of research to further this field of inquiry. As Mitchell (1994) points out, "visual experience... might not be fully explicable on the model of textuality" (p. 16), we must recognize the difficulties in relating the symbolic nature of images to textual form.
and measurable meanings. Finally, with any qualitative study, the analysis must stem from the researcher’s determination of objective truth, which naturally comes with certain biases of the researcher. An objective and truthful analysis was attempted here to the extent in which such objectivity is possible.

Limitations also exist regarding the experimental portion of this study. Certain questions about the causation of participants’ attitudes and behaviors toward the environmental movement were not investigated to the fullest extent. The implementation of a longitudinal design would measure the variables of interest beyond the immediate post-test design used in the present study. Such a design could have measured affect, attitude, and behavioral intentions at multiple points over a longer period of time, all together allowing for a better assessment of true causal influence in the process model. Questions regarding environmental group membership or a pretest on environmental attitudes and intentions could have added to the validity of the findings. Moreover, precise items related to prior knowledge would have advanced the idea of the ideograph if prior knowledge of the environmental groups existed. As previously stated, only a deep connection to these groups could produce a true ideology, and the measure of such awareness would begin there.

Criticisms of a student sample may apply for this study as well. An educated college student sample may indeed differ from the general population in affective reaction to images, and perhaps attitude and behavioral intentions regarding the environmental movement. Further studies should include a representative sample. In addition, the chosen method of using discrete emotions to measuring affective reaction presents both advantages and disadvantages. Among the various approaches to
investigating emotion, the discrete approach is distinctly functional (Nabi, 2007) and may not encompass emotion measures with the most breadth or depth possible. That being said, the discrete approach was chosen for its unique focus on adaptive function and inherent presence, which was determined to be most useful for self-reported emotion.

**Conclusion**

The work done in this study used the basics of public opinion with the concepts of the public and the crowd, to categorize and analyze contemporary group behavior of four environmentalist organizations. Additional dimensions were added to this analysis by way of visual rhetoric as a tool to investigate the meanings and implications offered by the online media of each group. The development of the visual ideograph grounded the visual rhetorical analysis and additionally offered a stimulus. Finally the experiment using the ideographical stimulus rounded out the triangulation of methodologies to determine the communicative influence of the visual ideographs representing the public and the crowd. The contribution this study makes to communication literature is the marriage between public opinion research and visual rhetorical theory. The advancement of visual rhetoric in any context is beneficial to our understanding of an increasingly visually mediated world. The focus on emotion additionally advances an understanding between the significant relationship with media, an area important to continue pursuing in media effects research. Finally, a major contribution is the demonstration of mixed methods research. The careful combination of qualitative and quantitative methodologies can be quite fruitful for the social science field.
References


55


DC: James F. Jarboe, Domestic Terrorism Section Chief, Counterterrorism Division.


Appendix A: Public Visual Ideograph

The images below represent those created as the ideograph for the public-like environmental groups. Each image was shown in color and greater size to participants.
Appendix B: Crowd Visual Ideograph

The following images represent those created as the ideograph for the crowd-like environmental groups. Each image was shown in color and greater size to participants.

1. Earth First!
2. ELF
3. Discoball
4. Elf
5. Globe
6. Forest