Making Memories in 140 Characters or Less: Testing the Effectiveness of CSR Messages Disseminated by Major League Baseball Teams via Twitter on Recognition and Recall

Betsy R. Haugh

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Brandi A. Watkins, Chair
Jenn B. Mackay
John C. Tedesco

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ABSTRACT

Corporate Social Responsibility (CSR) in sport is an emerging area of interest among scholars, sport managers, sponsors, fans, and policy-makers (Breitbarth, Walzel, Anagostopoulos, and van Eekeran, 2015). Despite this increased scholarly attention, a gap in literature exists regarding to the effectiveness of the messages disseminated. This study investigated how sports organizations communicate CSR on Twitter by examining the effectiveness of CSR messages disseminated via Twitter by professional baseball teams. Using priming theory and Lang’s (2000) Limited Capacity Model for Mediated Message Processing, this study tested the effects of priming and message sequencing on a persons’ ability to recognize and recall these CSR messages. While no statistically significant relationships were found, observed results led to strong arguments about the effects of both priming and message sequencing on the effectiveness of CSR messages disseminated by Major League Baseball (MLB) teams in terms of recognition and recall. Additionally, results suggested that traditional media effects paradigms might not be transferable to social media.
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CHAPTER 1: INTRODUCTION AND JUSTIFICATION

Corporate Social Responsibility (CSR) in sport is an emerging area of interest among scholars, sport managers, sponsors, fans, and policy-makers (Breitbarth, Walzel, Anagostopoulos, and van Eekeran, 2015). CSR, the fundamental idea that corporations have an obligation to work for social betterment (Frederick, 2006), has gained traction in academic research and sport scholarship in recent years. Virtually every sporting organization at the professional level has adopted a CSR program (Babiak & Wolfe, 2009). Sports leagues and teams are using CSR initiatives including philanthropic and charitable endeavors to promote involvement other than simple athletic competition (Formentin & Babiak, 2014). As such, sports CSR is a promising area of research beginning to gather significant traction in academic research.

Sport warrants increased CSR activity for a variety of reasons (Babiak & Wolfe, 2009; Smith & Westerbeek, 2007). Sport holds a prominent position in popular culture and has a distinct ability to unite diverse individuals, resulting in great power to influence communities on local, national, and global levels (McGowan & Mahon, 2009). According to sport public relations scholar Mick Jackoweski, CSR can also be used to bridge the growing gap between fans and commercialized, economically dominant sport organizations (as cited in Stodt, Dittmore, & Branvold, 2012). The connections teams have to their local communities, the affective component of consumer interest in sport, and the star-power of athletes and teams are additional reasons why sporting organizations should engage in CSR activity (Walker & Kent, 2009).

In addition to performing acts of CSR, teams and organizations are also actively communicating these initiatives to their stakeholders, including fans, the community, other
teams, and the general public. The use of Internet-based technologies for communication has become prevalent in recent years, and all professional sports teams in the United States are utilizing these technologies to connect with stakeholders. Isenmann (2006) recounts four categories of Internet-specific benefits for CSR communication in his broad classification framework, including benefits related to the communication purposes, benefits concerning the workflow along the production of communication tools, benefits in relation to the communication context, and benefits linked to the communication style. These benefits align with some of those presented in a CSR context, including the ability to create more dialogic, interactive communication with stakeholders (Formentin & Babiak, 2014). While the Internet also has the ability to do so, Formentin & Babiak (2014) argue that social media has potential to be used as an avenue to promote social causes.

While increased scholarly attention has been given to CSR in sport, a gap in literature exists in regards to the effectiveness of the messages disseminated. This study seeks to investigate how sports organizations communicate CSR on Twitter, a popular social media platform sports teams and leagues use to communicate and engage with fans. Given the vast array of information sports organizations disseminate on a daily basis, including information regarding games, statistics, roster updates, promotions, team memorabilia and gear, fan involvement, and CSR, an interesting consideration with this study is to gain insight into how MLB teams can prevent CSR messages from getting overshadowed or lost within this high volume of tweets. More specifically, this project examines the effectiveness of CSR messages disseminated via Twitter by professional baseball teams in Major League Baseball (MLB). Additionally, this study seeks to gather information regarding peoples’ knowledge of and attitudes about CSR, both before and after exposure to this stimulus material. There is a long-
standing history of CSR in baseball, making this sport an appropriate setting to conduct this research. Further, the frequency of messages disseminated on Twitter is higher than that of other major social media sites, which allows for richer data and investigation into the messaging on this platform.

Lang’s (2000) Limited Capacity Model of Mediated Message Processing suggests that people are information processors, but a person’s ability to process information is limited. This model serves as a conduit to guide this research into the investigation of the recognition and recall of CSR messages disseminated via Twitter. Previous research applying this model and its components has focused on more traditional forms of media such as television. However, Lang (2006) used this model to explore cancer communication and the development of effective messages on the topic. This study seeks to build on the ideas driving Lang’s (2006) application of the Limited Capacity Model to explore it in a new context, using it for the study of social media messaging and the effectiveness of CSR messages disseminated via Twitter by professional baseball teams. Further, the research also investigates the impacts priming and message sequencing have on the processing and retention of these CSR messages.

To address this gap in literature and answer the proposed research questions, this study used an online questionnaire composed of two experiments, one testing the effects of priming and one testing the effects of message sequencing. The dependent variables for each experiment were participants’ recognition and recall of CSR tweets. The survey also asked about participants’ sport fandom, social media use, and knowledge of and attitudes about CSR. CSR was measured in a pre/post-test design, with the questions being asked both before and after exposure to the stimulus materials. Participants’ ability to recognize CSR in a message disseminated via Twitter by an MLB team was also tested.
CHAPTER 2: REVIEW OF LITERATURE

Corporate Social Responsibility

**Defining CSR.** Bradish and Cronin (2009) broadly define CSR as an organization’s responsibility to be ethical and accountable to both their stakeholders and the needs of society. According to Bowd, Harris, and Cornelissen (2003), CSR is “corporations being held accountable by explicit or inferred social contracts with internal and external stakeholders, obeying the laws and regulations of government and operating in an ethical manner which exceeds statutory requirements” (p. 19). Additionally, the Corporate Social Responsibility Initiative at Harvard University proposes the following explanation of CSR:

[CSR encompasses] not only what companies do with their profits, but also how they make them. It goes beyond philanthropy and compliance and addresses how companies manage their economic, social, and environmental impacts, as well as their relationships in all key spheres of influence: the workplace, the marketplace, the supply chain, the community, and the public policy realm. (Harvard Kennedy School, 2013, para. 1)

While no commonly accepted definition exists today, the fundamental idea behind CSR is that corporations have an obligation to work for social betterment (Frederick, 2006). This idea serves as the leading definition for the concept of CSR for this research.

CSR initiatives are understood to be discretionary acts by organizations intended to give back to communities and societies that have offered them support (Kolter & Lee, 2005). Falck and Heblich (2007) define CSR programs as voluntary initiatives through which organizations are committed to exceeding society’s expectations of conventional corporate behavior. Further, Coombs and Holladay (2012) highlight the voluntary nature of CSR in their work as well, defining the concept as, “the voluntary actions that a corporation implements as it pursues its
mission and fulfills its perceived obligations to stakeholders, including employees, communities, the environment, and society as a whole” (p. 8). A study from Cone Communications (2013) provided new context from which to debate this voluntary status of CSR, however, finding that organizations today are expected to be involved with critical social and environmental issues. Cone (2013) labeled CSR as both a “reputational imperative” and a “critical business strategy,” and found that consumers consider CSR to be a “critical business strategy,” as nine out of 10 global citizens said they would boycott a brand or company if they learned of irresponsible behavior on the part of that organization.

The concept of CSR can be traced back to the 1930s and has since grown into a business practice involving four categories of obligations: economic, legal, ethical, and philanthropic (Carroll, 1991). Carroll (1999) traced the history of CSR research, citing the 1950s as the beginning of the modern era of social responsibility. Heath and Palenchar (2009) argue that when a business’s contribution to quality of life gained public attention in the 1960s, corporate citizenship became a major theme within public relations. The 1960s and 1970s were decades in which researchers first attempted to define CSR, with the 1960s marking significant growth in attempts to state or formalize what CSR means and the 1970s fostering proliferation of CSR definitions (Carroll, 1999). A shift from defining to applying CSR occurred in the 1980s, as this period focused less on defining the term and more on researching the concept, with alternative themes of CSR dominating the 1990s (Carroll, 1999).

Vogel (2006) cites a recent resurgence of CSR in the 1990s, referencing CSR efforts from major corporations including Nike, Ikea, Starbucks, Home Depot, British Petroleum, Shell, Citibank, PepsiCo, McDonald’s, Chiquita, and Timberland. Additionally, scholars have recently addressed the strategic management benefits CSR makes possible. Formentin and Babiak (2014)
suggest that CSR has expanded beyond philanthropic efforts in recent years and is now also being used as a strategic management practice. Coombs and Holladay’s (2012) definition previously discussed also illustrates this strategic approach, as it is sensitive to what the researchers define as the “triple bottom line” – concern for people, the environment, and profit. Further, CSR can affect consumer affinity, as well as a company’s image and “brand halo” (Cone, 2013), illustrating the strategic implications it can have as a facet of organizational operation.

Scholars have also investigated arguments for and against CSR in a corporate setting. Stone (1975) worked to better understand and define CSR by examining and analyzing the various arguments against it. Through this, he attempted to gain better insight into topics in CSR about which debaters were arguing. Stone considered the legal regulations imposed on businesses and the relationship they may have on CSR. Reviewer Jethro K. Lieberman of Business Week articulately summarizes Stone’s (1975) argument by saying, “As a society we have concluded that corporate social responsibility won’t work, and we therefore need law. Stone demands that we explore the reverse: Law doesn’t work and therefore we need social responsibility.” Additionally, Vogel (2006) argues that there is a market for CSR and a need for virtuous corporate behavior. He quotes Jeffrey Hollender who said CSR is “the future of business. It’s what companies have to do to survive and prosper in a world where more and more of the behavior is under a microscope” (Vogel, 2006, p.2).

**Evaluating CSR in Sport.** The relationship between sport and CSR has gained traction in academia as a subject of scholarly research in recent years. The argument has been made that sport is a good research avenue for the exploration and development of mainstream management issues (Wolfe et al., 2005), one of which is CSR. Breitbarth et al. (2015) suggest that the modern
concept of CSR in sport began eliciting attention about a decade ago. In a 2015 panel at the North American Society for Sport Management Conference (NASSM 2015), Breitbarth et al. addressed major themes of CSR in a sport context, including developing strategic CSR partnerships, regional and cultural differences in CSR in sport, and CSR evaluations. The researchers suggested viewing CSR in sport from the perspective of how CSR initiatives are achieved and received by the masses, rather than the types of goals that are achieved.

There are numerous benefits that result from a partnership between commercial and sport organizations within the context of CSR and corporate citizenship (Walters & Chadwick, 2009). Smith and Westerbeek (2007) argue, “Corporate managers and sports managers alike can enhance the economic prospects of their organizations and maximize the social benefits that they deliver to society by better harnessing the power of sport to deliver on social and community objectives” (p. 52). Based on a mixed-design study composed in part of a sample of fans from two National Football League (NFL) teams, Walker and Kent (2009) proposed that philanthropy, community involvement, youth education initiatives, and youth health initiatives as independent variables leading to CSR and in turn fostering team identification, corporate reputation, and patronage intentions.

Scholars have identified various CSR initiatives in sport, including community development, athlete volunteerism, fan appreciation, community-based environmental programs, and health-related initiatives (Walker & Kent, 2009); supporting good causes, donating to charities, and being environmentally responsible (Stodt et al., 2012); league-wide programs to address social concerns, and education-based initiatives (Walters, 2009). In a series of case studies of professional sports organizations, Filizöz and Fisne (2011) revealed that these organizations use their status and position to help the public based on their philanthropic and
ethical responsibilities. Ultimately, Giulianotti (2015) argues that sport CSR fits most appropriately in a category of social justice.

**CSR and Sport Research.** McGowan and Mahon (2009) conducted an analysis of CSR in the National Basketball Association (NBA), National Football League (NFL), and Major League Baseball (MLB), ultimately concluding that the professional sports league a franchise is a member of does impact its CSR activity. Looking more comprehensively at the four major sports leagues – the NFL, NBA, MLB, and National Hockey League (NHL) – Sheth and Babiak (2010) found that professional sports executives approach CSR in a “community-oriented, collaborative, and strategic manner in order to achieve their ethical, philanthropic, and legal responsibilities” (p. 446). Analysis of the CSR efforts of the NFL’s Detroit Lions revealed a “strategic and authentic approach anchored in strong and constructive community collaborations” (p. 683). Scholars have also studied CSR in the context of European football clubs (Walters & Chadwick, 2015; Walters & Tacon, 2011; Breitbarth & Harris, 2008).

**Communicating CSR.** Another leading question in CSR research is concerned with the ways organizations inform the public about their CSR activity. CSR communication is defined as “communication designed and distributed by the organization about its socially responsible efforts” (Walker, Kent, & Vincent, 2010, p.88). Cone (2013) found that 91 percent of global citizens want to hear information about an organization’s CSR activity. CSR communication has the potential to improve an organization’s ability to reach organizational goals and to help create a better reputation (Ihlen, Bartlett, & May, 2011). Walker et al. (2010) suggest that CSR communication can be used to influence relational (reputation) and transactional (business) outcomes. Additionally, Waddock and Googins (2011) argue corporations need to “credibly and strategically communicate their corporate responsibility activities to the many different
stakeholder groups potentially interested in the company from different contexts and sectors” (p. 24). CSR communication is a key component of the CSR Process Model, a continuous process made up of various stages that should inform an organizations’ strategic CSR effort. This model suggests that CSR communication works in conjunction with scanning and monitoring, conducting formative research, creating the CSR initiative, and conducting an evaluation and providing feedback (Coombs & Holladay, 2012).

Organizations may face a variety of challenges in their efforts to successfully communicate their CSR initiatives, one of which involves ensuring that the communication is based on the organization’s authentic values, beliefs, and practices in order to develop trust with stakeholders. Further, communicating about CSR in a climate of increasing mistrust can pose additional challenges and intensify the call for greater company transparency and accountability (Waddock & Googins, 2011). Low awareness and unfavorable attributions from the public and stakeholders hinder the maximization of all potential benefits CSR can have for an organization (Du, Bhattacharya, & Sen, 2010). Cone (2013) highlighted the public’s skepticism of corporate claims of CSR activity when it revealed that only 22 percent of consumers believe organizations have made a significant positive impact on social and environmental issues. These findings emphasize the need for stronger, more effective CSR communication from an organization to its stakeholders.

Authenticity can be used as a tool to help an organization overcome the widespread skepticism present in the business community today. In order for an organization’s communications to reflect this desired authenticity, though, performance on social and environmental issues must be associated with its reporting and communications (Waddock & Googins, 2011). In addition to authenticity, other principles of good CSR communication include...
dialogue between an organization and its stakeholders; transparency to foster trust, respect, and fairness; and alignment between an organization’s identity and image (Ihlen et al., 2011). Mirvis and Googins (2006) propose five stages of corporate citizenship and communications strategies: elementary, engaged, innovative, integrated, and transforming. After focusing on legal compliance, jobs, profits, and paying taxes in the elementary stage, organizations begin highlighting philanthropy in the engaged stage en route to integrating CSR with their business model more holistically in the integrated stage. This progression is consistent with Carroll’s (1991) pyramid of CSR, a classic framework used to analyze these categories that illustrates the four levels of corporate CSR involvement, suggesting they progress from simply performing basic economic functions to regarding the fullest sense of public interest (Lerbinger, 2006).

The focus of CSR communication research is on two main topics – the information that is communicated (what?) and the ways in which that information is communicated (how?). Ihlen et al. (2011) worked to create a comprehensive account of CSR and communication in order to further research the topic. Corporations often focus on three specific areas of their public policy agendas – economic, environmental, and social – when using CSR reports to communicate to and inform the public (Feldner & Berg, 2014). In addition to a desire for information related to what specific social causes an organization supports (Dawkins, 2004; Morsing & Shultz, 2006), research has also suggested that stakeholders should receive information about why an organization chooses to support a certain cause (Kim & Ferguson, 2014). Ultimately, it is of critical importance for organizations to communicate their CSR efforts and responsible behavior to their stakeholders (Capriotti, 2011).

**Communicating CSR Online.** The advent and proliferation of the Internet has altered life in recent decades, and the new technology has also impacted CSR communication. The
Internet afforded organizations the ability to reach stakeholders across the globe instantaneously and at any time, but additional inventions in technology further redefined corporate communication, most notably Web 2.0. Web 2.0 encompasses social media and collaborative tools such as blogging, microblogging, social networks, collaborative tools, and sharing tools (Capriotti, 2011). Capriotti (2011) argues, “using the Web allows organizations to articulate and communicate their activities and commitment to CSR, which may very well act as an adjunct to the use of advertising and media relations” (p. 558).

The Internet and Web 2.0 technologies provide an additional, widely used platform for organizations to communicate with stakeholders in an engaging fashion (Capriotti, 2011). Organizations and media sources use various communication channels to communicate their CSR activity to stakeholders. These communication and information channels can be divided into channels controlled by the company and those not controlled by the company. Company websites, social media outlets, newsletters, and advertising all represent company-controlled outlets, whereas information channels not controlled by the company include news media, public blogs, expert opinions, and social media sites (Kim & Ferguson, 2014).

Recent changes in the social media landscape provide an opportunity for organizations to integrate new media into their marketing strategies. Additionally, social media can help stakeholders unite around an event or cause, including those emphasizing social responsibility (Curley & Noormohamed, 2014). New media sources open an avenue for direct contact between users, stakeholders, and professional sports teams (Formentin & Babiak, 2014). Capriotti (2011) argues:

With the new digital tools, CSR communication must go beyond the traditional forms of communication, and communication must develop innovative applications of the new
technologies to exploit the full potential of the Internet tools for CSR communication.

However, web technology has not significantly changed the way that CSR is presented.

(p. 365)

Cone (2013) reveals that, while traditional media channels continue to be the most effective way to reach consumers, nearly one-quarter of consumers’ preferred communication method is social media, mobile phones, and company websites. The same study showed that 62 percent of global consumers report engaging with organizations about CSR via social media. Further, 34 percent of that group reported using social media to share positive information, 26 percent to share negative issues, and 29 percent to learn more about issues and organizations (Cone, 2013). As social media continues to grow in popularity, organizations should be aware of the impact these platforms can have in terms of information dissemination and proliferation. Coombs and Holladay (2012) suggest that social media can be used to create an echo, which they describe as the online equivalent of word of mouth communication. Through an echo, people pick up the CSR messages being communicated and relay them to others, causing the message to go viral.

Organizations can use social media to complete a variety of tasks associated with CSR communication. These include finding emerging issues by learning what CSR issues are important to stakeholders, determining if stakeholders are aware of CSR initiatives, assessing stakeholder reactions to CSR initiatives, increasing awareness of CSR initiatives, and providing an avenue of stakeholder engagement (Coombs & Holladay, 2012). Previous research has examined organizations’ uses of social networking sites for CSR communication. These results have indicated the potential for growth in this area and that stronger efforts at establishing a CSR communication strategy centered on social media are needed. McCorkindale (2010) found that
less than one-quarter of the top 50 Fortune 500 organizations used social media to discuss their CSR initiatives. Furthermore, Du and Vieira (2012) examined the use of social media for CSR communication from oil organizations and found that some organizations linked their social media accounts to their corporate websites, while others did not make this connection. For those that did foster this link, new opportunities for two-way communication were opened and communication with stakeholders was encouraged. Coombs and Holladay (2012) suggest that using both social media platforms and websites for CSR communication is a good approach.

In a sport context, scholars have conducted few studies on CSR communication by sport organizations. Walker et al. (2010) studied over 800 e-newsletters from the four major sporting leagues (MLB, NBA, NFL, and NHL) and ultimately recommended that teams continue to provide releases in this fashion, but also expand to new media forms such as social media platforms. Social media has the ability to effectively facilitate CSR communication in sport because of the number of fans and followers teams have (Formentin & Babiak, 2014). The researchers argue that the best way to capitalize on this opportunity and reach stakeholders is through factually based, personally relevant, and interactive messages. While previous research has shown sports organizations are already integrating CSR messages into their social media newsfeeds (Formentin & Babiak, 2014), further research is need to evaluate the effectiveness of these messages. One approach for doing so is to investigate the construction and sequencing of CSR messages.

Constructing and Processing CSR Messages

Primming. Priming is a valuable paradigm for studying the construction of public relations messages and how the public responds to them, especially if used effectively for corporate communication (Hallahan, 1999). Priming paradigms have been used in cognitive and social
psychology since the 1970s, and the concept was first introduced as a theoretical perspective regarding media effects in the 1980s. Media priming focuses on the potential for the media to prime people’s thoughts, beliefs, judgments, and behaviors (Roskos-Ewoldsen, Klinger, & Roskos-Ewoldsen, 2007).

Roskos-Ewoldsen, Roskos-Ewoldsen, and Carpentier (2009) broadly define priming as “the effect of some preceding stimulus or event on how we react...to some subsequent stimulus” (p. 97). As such, media priming is defined as “the effects of the content of the media on people’s later behavior or judgments related to the content that was processed” (Roskos-Ewoldsen et al., 2009). Priming is a process that occurs continuously, influencing judgments, perceptions, and behaviors both passively and automatically (Fahmy & Wanta, 2003). A prime can affect the way in which a particular topic is judged by making some issues more salient than others (Iyengar & Kinder, 1987; Iyengar & Simon, 1993). Simply put, priming subjects affects the ways in which they interpret information (Fazio, Powell, & Herr, 1983).

Priming is a useful strategy for increasing the awareness and accessibility of an issue in people’s minds. The psychological process that underlies a person’s development of judgments or attitudes generally follows the process of human cognition (Wang, 2007), an area from which priming research developed. Priming works to make an issue salient in people’s minds (Wang, 2007), connecting to message recognition and recall through mental models that represent knowledge about events (Roskos-Ewoldsen et al., 2009). Wyer and Srull (1989) argue that subjects that have been primed become more accessible and are more likely to play a role in the subsequent formation of judgments.

A variety of characteristics support the claim that the media is a likely source of priming, including the prevalence of media in society today. The media is ubiquitous, making it a
powerful source for priming that may influence subsequent interpretations and judgments of information, sometimes outside of the public’s awareness. Further, certain types of media are compatible for priming, including, at a basic level, the typical newscast (Roskos-Ewoldsen et al., 2007). This research examines if social media is compatible for priming.

**Priming Models.** Two prominent models have been proposed and studied with regard to media priming, network models and mental models. Network models focus on nodes and activation thresholds, contending that information is stored in memory in the form of nodes, each of which represents a certain concept, is connected to related nodes via associative pathways, and has its own activation threshold. It is reasoned that, once a node reaches its activation threshold and is fired, related nodes can also be activated thanks to this connected system (Roskos-Ewolden et al., 2009). Related to this idea is the accessibility-driven view of priming, which, in a CSR context, argues that priming can activate people’s judgments of an organization’s CSR efforts and this activation may spread along associated pathways to reach and affect that person’s judgments toward the company’s other practices, helping to form an overall attitude towards an organization (Wang, 2007).

Roskos-Ewolden et al. (2009) suggest that network models provide a starting point but need to be supplemented in a larger theoretical framework and hypothesize that mental models exist alongside these network models. The researchers ultimately suggest that mental models are a better approach to understanding media priming. Van Dijk and Kintsch (1983) define mental models as dynamic mental representations of objects, events, or situations. Mental models can be used to interpret information in terms of processing, organizing, and comprehending the material; make social judgments; offer explanations and descriptions of system operation; and make inferences and predictions (Roskos-Ewolden et al., 2009).
Mental models are mutable, which provides a research advantage in that elements of the model can be changed to see how relationships or other elements are affected. Additionally, mental models are dynamic, making them “subject to user control” (Roskos-Ewolden et al., 2009, p. 86) and allowing for further investigation through manipulation. Mental models are also situated in time, addressing a prevalent question in priming regarding if primes fade over time (Roskos-Ewolden et al., 2009). Primes influence how subsequent information is processed and interpreted by influencing the type of mental model constructed as a means of understanding a situation. As such, these mental models have a greater likelihood of being accessed, as they can be primed by the media (Roskos-Ewolden et al., 2002).

Placing the mental models of priming in the greater context of media effects, this study seeks to investigate the effects of both priming and message sequencing on recall of CSR messages. This research argues that priming may not only impact a person’s judgments or behaviors, but also foster greater recall of a certain message. Exposure to news coverage about an issue or topic often makes that subject more accessible in mind of the audience (Wang, 2007).

Message sequencing relates to priming in regards to two important characteristics. The first of these assumes that a prime’s effect is a dual function of its intensity and recency. Intensity is frequency and duration of the prime, whereas recency refers to the time between the prime and the targeted behavior (Roskos-Ewolden et al., 2009). The second characteristic of priming that is important in this context is the aforementioned idea that the effects of a prime will fade with time. Message sequencing has the potential to drastically impact a prime’s effectiveness based on these two characteristics. As a result, priming and message sequencing are both integral considerations when studying how a message is received and processed.
**Priming Research.** Media priming research has progressed through a number of different shifts in research foci since the field of study originated. The research began with an interest in how media content influences people’s thoughts, beliefs, judgments, and behaviors before moving the emphasis to the psychological mechanisms underlying priming (Roskos-Ewoldsen et al., 2002). Today’s media priming research places more of a focus on the different contexts in which media priming occurs (Roskos-Ewoldsen et al., 2009). Throughout these shifts, though, the two main research contexts for media priming studies have remained constant, with the majority of media priming research having focused on media violence and political priming.

Berkowitz’s (1984) neo-associationistic model of media violence and priming uses network models to suggest that depictions of violence in the media activate concepts of hostility and aggression in memory and increase the likelihood that others’ behaviors will be interpreted as hostile or aggressive and the likelihood that a person will engage in aggressive behaviors. This hypothesis also argues that the activation of these concepts will fade over time. Roskos-Ewoldsen et al.’s (2007) meta-analysis of 63 priming studies published in 48 journals found 18 studies testing the effect of media violence on judgments and behavior, calling for increased research on the time course of media priming and the effect of prime intensity on this media priming explanation of media violence.

Additionally, political priming research has shown that the media can alter the criteria citizens use to evaluate candidates and political parties, thereby impacting the outcomes of elections (Valenzuela, 2009). Weaver, McCombs, and Shaw (1998) propose that from a theoretical perspective, priming is an extension of agenda setting. Political priming research grew from agenda-setting research, which assumed that widespread media coverage of an issue
increases the likelihood that people will use that issue to judge a candidate or president’s performance (Roskos-Ewoldsen et al., 2007). In regards to political priming research focusing on evaluations of presidents, a sampling of research studying President Bush and the Gulf War revealed that people’s beliefs about the way the President handled foreign policy predicted their overall evaluations of the President and his performance (Pan & Kosicki, 1997; Iyengar & Simon, 1993; Krosnick & Brannon, 1993a & 1993b).

Political priming research has also focused on elections. Domke, Shah, and Wackman (1998) studied the effects of media priming on voters to make attributions about candidate integrity and encourage voters to ethically evaluate other political issues. The researchers examined two subgroups of evangelical Christians and undergraduate college students and four distinct political environments to reveal a clear pattern where different issues produced different effects, some priming ethical interpretations of material issues and some priming perceptions of candidate integrity. Valenzuela (2009) researched voters in the 2006 Canadian election to find that priming was not constant across variables of political involvement, but was strongest for voters with moderate levels of knowledge.

Research into media stereotypes has also investigated priming effects. Arendt and Marquart (2015) researched media priming effects on overtly expressed stereotypes toward politicians, finding that pre-existing implicit stereotypes moderated the media priming effects on explicit stereotypes. They also found that antagonistic media primes did not produce a media priming effect. In studying tabloid articles that overrepresented foreigners as criminals, Arendt (2013) found that the media priming effect followed an exponential decay function that was moderated by vigilance.
In the aforementioned meta-analysis Roskos-Ewoldsen et al. (2007) investigated four questions about media priming, the first being whether the media acts a prime. Second, they compared media violence and political media to see if the magnitude of the media priming effect varied across the domains. They also asked if the intensity of a prime influenced the extent of the media’s influence, and, lastly, if the effect of media priming faded over time. This meta-analysis was the first attempt to survey the field of media priming research to identify the confidence with which claims could be made within the research tradition and the strength of those claims. The researchers found that the media does act as a prime and advocated for future research on the effects of the time and duration of a media prime.

**CSR and Priming.** In a CSR context, Wang (2007) argues that organizations and public relations practitioners must prime messages and communication properly in order to elicit favorable attitudes towards their company. The issues an organization chooses to emphasize with primes may significantly influence the thoughts and ideas that come to people’s minds as they judge other actions taken by an organization, even those that are seemingly unrelated. Research has shown that an organization’s ability to create positive linkage in the public’s consciousness between an organization’s CSR practices and its overall image is directly related to creating positive perceptions of CSR (Wang, 2007). Creating a positive linkage relies heavily on communicating CSR efforts (Epstein & Roy, 2001; Maignan & Ferrek, 2001), which can be improved through the use of a prime.

Little research has focused on the use of priming on people’s attitudes toward an organization’s CSR efforts (David, Kline, & Dai, 2005). Two studies testing the effects of CSR priming have provided some research in the area (Wang 2007; Wang & Anderson, 2008), yet the context still remains largely under-researched. Further, these two studies also look at priming in
terms of how it works with framing to affect people’s judgments of an organization and do not focus exclusively on the power of priming as an independent strategy. Wang and Anderson (2008) found that the main effects of CSR priming and valence of CSR framing affected judgments of a target corporation’s CSR activity, as well as attitudes toward that corporation. Wang (2007) argues that the effects of priming, along with the effects of framing, on issues of CSR make priming “a necessary condition for effective relations to be established between an organization and its publics” (p.127).

The Limited Capacity Model of Mediated Message Processing. Lang (2000) proposed the Limited Capacity Model of Mediated Message Processing, later referred to as the Limited Capacity Model of Motivated Mediated Message Processing, or the LC4MP (Lang, 2006). The model is concerned with how mediated messages are processed. It provides a conceptual theoretical framework for asking questions regarding the cognitive processing that underlies media effects, as well as a methodological tool that can be used to measure each process and mechanism theorized (Lang, 2000). The model is rooted in two major assumptions, the first being that people are information processors. Second, it is assumed that a person’s ability to process information is limited (Lang, 2000; Basil, 1994; Schneider, Dumais & Shiffrin, 1984; Shiffrin & Schneider, 1977). Humans have a limited number of cognitive resources available to expend, and when they do not have enough resources to devote to a task, the processing of that task suffers (Lang, 2006).

The LC4MP proposes three major subprocesses used in information processing – encoding, storage, and retrieval (Lang, 2000; Lang, 2006). Encoding involves getting a message into a person’s brain from an external source in the environment, a process Lang (2000) argues has been oversimplified in many communication models and theories. Encoding is the process
through which specific bits of information are selected from an original message and
transformed into activated mental representations. Both controlled and automatic processes can
trigger encoding (Lang, 2000). Controlled, or intentional, processes reflect viewer’s goals.
Conversely, Graham (1997) and Ohman (1997) suggest that automatic stimulation is activated by
two major types of stimuli, information that represents an unexpected occurrence of change in an
environment and information that is relevant to the needs or goals of a person. Lang (2006)
posits that a major consideration of the LC4MP is designing messages in a way that ensures the
important parts of that message are encoded. An encoded message is an “idiosyncratic
representation” (Lang, 2000, p. 49) of a message as constructed by the viewer, rather than a
complete or exact replica of the original message.

The second subprocess of information processing is storage, the process of linking newly
encoded information to memories, or information that has previously been encoded (Lang,
2000). Information must be linked to previously encoded information in order to become part of
a person’s long-term memory, as the more links a new piece of information has to previously
encoded information, the better that information is stored (Lang, 2006). Researchers suggest this
process occurs through an associative network (Klimesch, 1994; Eysenck, 1993; Eysenck &
Keane, 1990), which is similar to the network association model found within the priming
literature

Retrieval, the process of locating a specific piece of information in the associate memory
network and reactivating it, is the third subprocess of information processing (Lang, 2000). As
with the other subprocesses, the amount of resources allocated to retrieval affects the amount of
ongoing concurrent retrieval throughout the process (Lang, 2006). Lang (2000) illustrates the
cursory nature of these processes, suggesting that concurrent retrieval stimulates the activation of old and new information, thus also playing a role in the storage process.

As the LC4MP contributes to a greater understanding of mediated message processing, this theoretical approach can also be applied to aid in the creation of effective messages. This understanding can be instrumental in CSR research and communication, as organizations strive to find strategies to effectively communicate their CSR activity and disseminate information regarding CSR initiatives. Lang (2006) applied the model to the design of effective cancer messages in health communication, suggesting that one should ask four questions while designing a message: “1) What is the message goal? 2) Who is in the target market? 3) What medium will carry the message? and 4) What is the motivational and personal relevance of the main information in the message for the majority of people in the target audience?” (p. 562-563).

**Recognition.** Recognition is central to the model of information processing used to determine if a specific bit of information was encoded (Lang, 2000). Recognition is thought to be the most sensitive measure of memory, as the subject is presented with numerous cues to help trigger the retrieval of information (Tulving & Thompson, 1973). Researchers have studied recognition in the context of television messages (Bolls, Hibbs, & Lang, 1995; Hibbs, Bolls, & Lang, 1995; Lang et al. 1993; Lang, 1991). In their two studies, Bolls, Hibbs, and Lang (1995) computed the average recognition score across subjects for 76 randomly selected messages in order to attempt to predict the average recognition score based on the number of cuts and edits in a message. They found that recognition increased as the number of edits increased. These studies also examined unrelated and related cuts, as did Lang et al. (1993), who found that recognition memory was significantly greater following related cuts, while it was lower following unrelated cuts.
The question regarding the relationship between message complexity and recognition has also received some research attention, as Reeves, Thorson, and Schleuder (1985) completed a series of studies investigating the effects of audio and video complexity on recognition memory. The basic finding of Reeves et al. (1985) was that more information required greater processing, further stating that multiple-channel presentations required more mental effort than single-channel versions. Additionally, Thorson et al. (1985) found that, for messages globally, increasing complexity decreased recognition memory, while also noting that bits of complex messages that were not complex in themselves were understood better than the more complex parts.

Goldberg, Mashatan, and Stinson (2010) looked at message recognition protocols, also briefly examining the relationship between message authentication and message recognition. They reasoned that, in certain situations, message recognition is all that is possible, as authentication would be harder to secure. Hallahan (2000) researched public relations messages and suggested that messages that affectively resonate with the viewer lead to greater attention and interest, more cognitive responses, higher message recognition, and greater topic recall, an issue that will be further addressed in the following section. Other research has examined recognition from a public relations focus, including Werder (2009), who found that problem recognition and involvement are influenced by public relations strategies. Based on this literature, this research seeks to determine if Twitter users are able to recognize a CSR message when it is disseminated through the public relations strategy of using the social media platform, Twitter. Further, this research investigates how priming can affect the recognition of CSR messages.
Recall. Another measurement proposed in the LC4MP is recall, which can occur in two forms – cued recall or free recall. Tulving and Osler (1968) state that, in cued recall, a single cue is presented to help the subject retrieve an item from memory. This method of recall is the second most sensitive measure of memory, less sensitive than recognition, but more sensitive than free recall (Lang, 2000). Compared to cued recall, free recall measures how well a subject can retrieve a piece of information without any cues. Christianson (1992) suggests that the processing of a message is altered by the presence of emotion-eliciting content. People tend to pay closer attention to messages that appeal to them emotionally, making it harder to ignore the message and its content (Lang, 2000). Studies have shown that emotionally-arousing stimuli lead to greater cued and free recall (Lang, Bolls, Potter, & Kawahara, 1999; Bradley, Greenwald, Petry, & Lang, 1992). CSR often relates to topics to which people have emotional connections including philanthropy and community improvement. As such, information regarding the effects of emotion-eliciting content on message process can be instrumental in the effective development of CSR communication strategies for an organization. This study incorporates these findings by examining the affective component of CSR messages disseminated by MLB teams via Twitter.

Carpenter and Boster (2013) laid out historical perspectives on the relationship between message recall and persuasion, ultimately proposing that, while message recall is an important factor determining how persuasive a message is, this relationship depends on various moderating variables, including the strength of the argument and the ways in which people process persuasive messages. Research also suggests that message recall will best predict message persuasion regardless of attitude changes when message content is encoded free of elaborations (Mackie & Asuncion, 1990).
Research on news messages and recall has revealed that people who watch television news with the primary goal of gathering information recall more information than others. Additionally, casual viewers recall more information than viewers seeking a diversion or watching the news for both diversion and information-gathering purposes (Gantz, 1978). Katz, Adoni, and Parness (1977) found that pictures added to recall of news messages, with people who saw and heard news recalling more than those who only heard it, to some extent. Further, Cacioppo and Petty (1989) tested the effects of message repetition on recall, argument processing, and persuasion, based on early hypotheses that repeated exposure was the leading factor in creating more positive attitudes and increasing recall. They found that moderate repetition can either increase or decrease regard for an object or attitude depending on how the message recipient related the arguments in the message to his or her own knowledge and opinions about the issue. Based on this previous research on message recall, this study aims to investigate factors that influence the recall of a CSR message.
CHAPTER 3: RESEARCH QUESTIONS AND HYPOTHESES

Communicating CSR is an integral focus of an organization’s overall CSR message. Professional sports teams communicate about a variety of issues including game information, statistics, roster updates, promotions, fan opportunities, and commerce. This research seeks to investigate how to prevent CSR messages from getting lost in the shuffle of the myriad of messages teams release each day, based on Lang’s (2000) assertion that people have a limited capacity for information processing. Before this research can examine a fan’s ability to recall a CSR message, it must first investigate if a fan can recognize a CSR message and distinguish this message as communicating a community outreach effort.

RQ1: Are fans able to recognize CSR in a message disseminated by an MLB team via Twitter?

Sports organizations are already incorporating CSR messages into the information they disseminate via social media (Formentin & Babiak, 2014), yet further research is needed to evaluate the effectiveness of these messages. This research seeks to address this gap in research by investigating the construction and sequencing of CSR messages. A variety of factors can influence the effectiveness of a message and affect a person’s ability to recall certain messages. By using a prime to affect reactions to some subsequent stimulus, priming is a useful strategy for increasing the awareness and accessibility of an issue in people’s minds. Wang (2007) found that CSR priming affected judgments of an organization’s CSR activity. Additionally, research has found that primes can make some issues more salient than others (Wang, 2007; Iyengar & Simon, 1993; Iyengar & Kinder, 1987). Based on the previous literature examined regarding priming research, the following hypotheses for this study, in the context of MLB and Twitter:
H1a: Priming will have a direct positive influence on a fan’s ability to recognize a CSR message.

Additionally, before specifically investigating the effects of priming on a fan’s ability to recall a CSR message, it is useful to determine what information fans do recall in an open-ended response situation. The following research question and hypothesis work in conjunction to provide a detailed overview of the information fans recall in this experiment and the influence of a prime on this recollection.

RQ2: When feeds are constructed to test for effects of priming, what information are fans able to recall from a Twitter feed?

H1b: Priming will have a direct positive influence on a fan’s ability to recall a CSR message.

Further, within priming, message sequencing warrants further investigation as it assumes a prime’s effect is a function of its intensity and recency, stressing the importance of the context in which a message is communicated. These two characteristics have the potential to drastically impact a prime’s effectiveness, making message sequencing a critical consideration when studying how a message is received and processed. Considering message sequencing and its relationship to priming, this research proposes the following hypotheses and research question:

H2a: Message sequencing will have a direct positive influence on a fan’s ability to recognize a CSR message.

As with the priming experiment, it is useful to first determine what information fans recall in an open-ended response situation in the message sequencing experiment before investigating the effects of message sequencing on recall of CSR messages. The following
research question and hypothesis are proposed in tandem to provide insight into the information fans recall in this experiment and the influence of message sequencing on that recollection.

RQ3: When feeds are constructed to test for effects of message sequencing, what information are fans able to recall from a Twitter feed?

H2b: Message sequencing will have a direct positive influence on a fan’s ability to recall a CSR message.
CHAPTER 4: METHODOLOGY

Research Setting

**CSR and Major League Baseball.** The context for this study is CSR message dissemination by MLB teams. There is a long-standing history of CSR in MLB. McGowan and Mahon (2009) referenced the Sport Philanthropy Project that revealed the first significant milestone in CSR development in professional sports occurred in 1953 when the Jimmy Fund became the first official charity of the Boston Red Sox. Twenty years later in 1973, George Steinbrenner bought the New York Yankees and created the New York Yankee Foundation, the first team foundation in the MLB. While NFL Charities became the first league-wide foundation in professional sports the same year, the first foundations in the NBA did not originate until 1986 when the Chicago Bulls and Phoenix Suns established foundations (McGowan & Mahon, 2009).

In March 2016, the Green Sports Alliance, an environmentally-focused organization that “leverages the cultural and market influence of sports to promote healthy, sustainable communities where we live and play,” announced that the MLB was the first professional sports league to have all clubs join as members (sportsalliance, 2016). In addition to a longer CSR history, research has revealed MLB charities have significantly higher revenues than those of the NFL and NBA (McGowan & Mahon, 2009). The researchers also revealed that every MLB team has a charitable foundation, which was not the case in the NFL or NBA at the time their research was conducted. This information provides further justification for the selection of the MLB as the league at the focus of this study.

**Twitter.** Compared to other popular social media platforms including Facebook and Instagram, Twitter disseminates messages at a much higher frequency (Lee, 2014). This is due to the nature of the site and its accepted use as an avenue for communication. Therefore, Twitter
provides the best context for this research, as it houses the greatest number of messages from a team on a daily basis. In an attempt to develop a strategy to prevent CSR messages from being overshadowed by the myriad of messages promoted by an MLB team, this study focused on the dissemination of CSR messages via Twitter to investigate the recognition and recall of CSR messages communicated by MLB teams.

**Twitter and Major League Baseball.** Social media is popular within the sport context, as it provides an outlet for direct team-fan communication. Clavio and Kian (2010) argued that, since its introduction in 2006, Twitter has come to hold a significant position in the sports communication landscape. Building on this argument, Blaszka et al. (2012) deemed Twitter to be a “permanent fixture” in the sports media landscape (p. 435). The official MLB account has nearly 5.5 million followers on Twitter, and each individual team also maintains its own account. The New York Yankees have over 1.5 million followers, the highest of any individual team. The team with the fewest number of followers, the Miami Marlins, has just under 190,000 followers (Fan Page List, 2016). On average, MLB teams have nearly 510,000 Twitter followers. These numbers illustrate the popularity of social media sites in professional baseball, making Twitter an appropriate venue in which to conduct this research.

**Twitter and CSR.** Research has shown organizations are increasingly turning to social media platforms to disseminate information about their CSR activity. Cone (2013) found that nearly two-thirds of all global consumers engage with organizations about CSR via social media. Using social media platforms for this type of communication allows organizations to gather information regarding customer knowledge of and attitudes about CSR, increase awareness of CSR initiatives, and provide an outlet for stakeholder engagement (Coombs & Holladay, 2012). In the sport context, Formentin and Babiak (2014) found that sports organizations are already
integrating CSR messages into their social media newsfeeds. These findings indicate the strong potential for CSR communication via social media, thus strengthening the argument for continued research in this area. As such, this study expands this body of knowledge by investigating the effectiveness of CSR messages disseminated by MLB teams via Twitter.

**Study Design**

This study incorporated two experiments to test the recognition and recall of CSR messages disseminated via Twitter by MLB teams. The first experiment tested the effects of priming on CSR message recognition and recall, and the second experiment tested the effects of message sequencing on these same dependent variables.

**Stimulus Materials.** The stimulus material developed for this study included fabricated Twitter content meant to simulate those of MLB teams, specifically the Cleveland Indians, Chicago White Sox, and San Francisco Giants. A singular team focus was used for each of the fabricated Twitter feeds, specifically the Cleveland Indians, San Francisco Giants, and Chicago White Sox team Twitter accounts were selected for the stimulus material. Haugh (2015) conducted a content analysis to better understand how MLB teams use Twitter to communicate their CSR initiatives, and found that the Indians tweeted more than any other team during the 2014-2015 offseason (n = 1374), followed by the Giants (n = 1368) and the White Sox (n = 1210). Further, the average percentage of total tweets that communicated CSR was 17.8%, and these three teams represent one team below the average (Cleveland: 11.5%), one team right at the average (San Francisco: 17.98%), and one team above the average (Chicago: 25.79%; Haugh, 2015). The high volume of tweets are valuable considerations given that one purpose of this study is to examine how to prevent CSR messages from getting the lost amid all of the messages MLB teams disseminate.
The researcher constructed CSR tweets to include initiatives that were both popular and unpopular in terms of the number of times MLB teams tweeted about them, based on results of a content analysis of how MLB teams use Twitter to communicate their CSR initiatives (Haugh, 2015). Popular initiatives discussed included charitable donations ($n = 225, 15.5\%$) and community initiatives ($n = 184, 12.7\%$), while environmental initiatives ($n = 4, 0.3\%$) and health-related initiatives ($n = 91, 6.3\%$) were less popular in terms of how often MLB teams discussed them on Twitter. The researcher elected to include initiatives that varied in terms of levels of popularity in order to feature content that was more representative of CSR in its entirety. This decision was made to yield greater insight into a participants’ ability to recognize and recall CSR messages detailing various dimensions of CSR rather than only those that are most popular. These tweets were formatted within a Twitter profile for each sports team in order to make the stimulus materials more realistic. As a result, participants were also exposed to a team’s profile image, cover photo, number of followers, and other descriptive information common within a Twitter profile. (See Appendix B.)

Experimental Design. To address RQ1 regarding whether participants recognized CSR in a message disseminated by an MLB team via Twitter, the participants were exposed to four
sets of four tweets, with one tweet from each of the aforementioned categories. Participants were asked to identify each tweet based on the category it would appropriately fit in.

In the first experiment, the researcher constructed two fabricated Twitter feeds to test H1. The first included a series of four tweets, one from each of the aforementioned categories; this feed did not include a prime and was the control feed. The second Twitter feed included the same four tweets as the first, as well as a prime meant to foreshadow the CSR tweet, which was hypothesized to increase participant’s recognition and recall of the CSR message.

In the second experiment, the researcher constructed four fabricated Twitter feeds. Each of these feeds included the same four tweets, with one tweet from each of the aforementioned categories. To test H2, the Twitter feeds placed the CSR tweet in a different position within the order of each feed, either before the game, during the game, or after the game. There also was a control feed that contained the same tweets in no particular order. RQ2 and RQ3 were investigated by the responses provided for the same Twitter feeds and questions used to test the hypotheses.

**Procedure**

The stimulus materials and questionnaire were inserted into Qualtrics survey software to create an online study. An email sent out to all members of a research participation pool alerted participants of the opportunity to participate in this study. Those who chose to participate signed up electronically and completed a questionnaire. After providing consent, participants were asked a series of questions to gain insight into their level of sports fandom, social media use, and knowledge of and attitudes toward CSR initiatives. Next, to test a participants’ ability to recognize CSR in a message disseminated by an MLB team via Twitter, participants were asked
to identify which topic a certain tweet was about, using four categories of tweets – CSR, game information, roster updates, and promotions.

After participants responded to the questions detailed in the paragraph above, Qualtrics randomly assigned the participants to one of two groups for the first experiment, which tested the effects of priming. Participants in each group were shown a series of four or five tweets depending on whether or not the Twitter feed included a prime. They were then asked to respond to questions testing recognition and recall of these tweets. Two open-ended questions were used to test recall, one asking participants to write down everything they learned from reading the previous tweets and a second asking participants which of the previous tweets they would consider to be CSR messages. To test recognition, participants were asked to identify which of the tweets they would consider to be a CSR message from the Twitter feed they read, similar to a multiple choice question on an exam.

Participants also completed the second experiment, which tested the effects of message sequencing. Participants were divided into four groups and shown one of four fabricated Twitter feeds. They were then asked to respond to the same questions from the first experiment to measure the recognition and recall of these tweets. After completing both of these experiments, participants were asked to again respond to the CSR questions they answered at the beginning of the survey, as part of the pre/post test design. Lastly, participants provided demographic information before exiting the survey.

**Independent and Dependent Variables.** For the first experiment, the independent variable was the inclusion of a prime in the fabricated Twitter feed. For the second experiment, the independent variable was the placement of the CSR tweet within the fabricated Twitter feed, which placed the focus on the sequence of messages within the feed. The independent variables
were manipulated through the fabricated Twitter feeds and compared to control conditions. The dependent variables – recall and recognition – remained constant in both experiments.

**Measures**

**CSR.** This experiment used a pre-post-test design to gain insight into participants’ knowledge of and attitudes about CSR initiatives. Three questions asked about participants’ familiarity with CSR and knowledge of CSR in professional sports, using a 5-point Likert scale based, in part, on statements from Formentin and Babiak (2014) and McGown and Mahon (2009). This scale was found to be reliable, ($\alpha = .91$). Three additional questions measured participants’ attitudes about CSR. These questions solicited opinions on whether professional sports teams should engage in CSR activity, should focus on more than athletic competition, strive to have a positive impact on their communities (Formentin & Babiak, 2014), and have the ability to make a positive impact on their communities (McGowan & Mahon, 2009). This scale was also found to be reliable both before ($\alpha = .75$) and after the experiment ($\alpha = .78$). See Table 1.

<table>
<thead>
<tr>
<th>Item</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR Knowledge ($\alpha = .91$)</td>
<td>2.22</td>
<td>0.17</td>
</tr>
<tr>
<td>I am familiar with CSR.</td>
<td>2.42</td>
<td>1.37</td>
</tr>
<tr>
<td>I am familiar with CSR in professional sports.</td>
<td>2.15</td>
<td>1.14</td>
</tr>
<tr>
<td>I know of CSR initiatives conducted by professional sports teams.</td>
<td>2.08</td>
<td>1.1</td>
</tr>
<tr>
<td>CSR Value – Pre-test ($\alpha = .75$)</td>
<td>3.97</td>
<td>0.38</td>
</tr>
<tr>
<td>I think professional sports teams should engage in CSR.</td>
<td>3.61</td>
<td>1.07</td>
</tr>
<tr>
<td>I think professional sports teams should focus on more than athletic competition and strive to have a positive impact on their communities.</td>
<td>3.91</td>
<td>1.09</td>
</tr>
<tr>
<td>I think professional sports teams have the ability to make a positive impact on their communities.</td>
<td>4.37</td>
<td>0.92</td>
</tr>
<tr>
<td>CSR Value – Post-test ($\alpha = .78$)</td>
<td>4.38</td>
<td>0.20</td>
</tr>
</tbody>
</table>
I think professional sports teams should engage in CSR. 4.40 0.77
I think professional sports teams should focus on more than athletic competition and strive to have a positive impact on their communities. 4.18 .95
I think professional sports teams have the ability to make a positive impact on their communities. 4.57 0.72

*α = Cronbach’s alpha. M = mean. SD = standard deviation.

**Recognition.** Recognition was measured through participants’ ability to select the appropriate CSR tweet from a list of tweets, based on Thorson and Lang’s (1992) measure, providing participants with multiple choice questions to test their memory and recognition. A participant’s ability to recognize a CSR message was determined to be successful if the participant selected the appropriate tweet from the four available options. Following the lead of Thorson, Reeves, and Schleduder (1985, 1987), this experiment elected to feature four tweets in each list.

**Recall.** This study measured recall through participants’ responses to open-ended questions: “Please write down everything you learned from reading the previous tweets. Be specific and reference individual tweets if possible.” Bradley et al. (1992) and Katz, Adoni, and Parness (1977) are among the researchers to use this method of measurement when testing for recall.

**Team Identification.** To gather information regarding participants’ levels of team identification, the researcher used Wann and Branscombe’s (1993) Sport Spectator Identification Scale. These items were measured using a 5-point scale with bipolar responses provided with Wann and Branscombe’s (1993) original questions. Wann and Branscombe (1993) successfully tested the reliability and validity of this scale through two studies from which they concluded that the scale appeared accurate in determining allegiances fans hold to a team and would be an
appropriate construct for future studies of sport fans. This scale was found to be reliable in this study (α = .93). See Table 2.

Table 2. Team Identification Item Measures and Descriptive Information

<table>
<thead>
<tr>
<th>Item</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Identification (α = .93)</td>
<td>3.34</td>
<td>0.29</td>
</tr>
<tr>
<td>How important is it to you that your favorite team wins?</td>
<td>3.65</td>
<td>1.15</td>
</tr>
<tr>
<td>How strongly do you see yourself as a fan of your favorite team?</td>
<td>3.71</td>
<td>1.15</td>
</tr>
<tr>
<td>How strongly do your friends see you as a fan of your favorite team?</td>
<td>3.27</td>
<td>1.31</td>
</tr>
<tr>
<td>During the season, how closely do you follow your favorite team?</td>
<td>3.28</td>
<td>1.25</td>
</tr>
<tr>
<td>How important is being a fan of your favorite team to you?</td>
<td>3.29</td>
<td>1.32</td>
</tr>
<tr>
<td>How much do you dislike your favorite team’s rivals?</td>
<td>3.33</td>
<td>1.39</td>
</tr>
<tr>
<td>How often do you display your favorite team’s name or insignia at your place of work, where you live, or on your clothing?</td>
<td>2.85</td>
<td>1.19</td>
</tr>
</tbody>
</table>

*α = Cronbach’s alpha. $M$ = mean. $SD$ = standard deviation.

**Thematic Analysis Coding.** To analyze the four free response questions meant to test participants’ recall of CSR messages from the tweets, the researcher conducted a thematic analysis. Thematic analysis is a method for systematically identifying and classifying perceptions of themes across a data set (Braun & Clarke, 2012). Employing this method of analysis allows the researcher to identify commonalities in a topic and subsequently make sense of these shared meanings within the topic. After identifying commonalities, the researcher assigned numeric values to each in order to allow for data analysis best suited to answer the research questions and test the hypotheses. The codebook developed from and used for this analysis is in Appendix C.

In each experiment, participants were asked two open-ended questions, one asking them to write down all information they learned from the Twitter feed they read and a second question asking them to write down tweets they considered to be CSR messages. The categories for the first question aligned with the four categories of tweets used during the development of stimulus materials and throughout the questionnaire – game information, roster updates, promotions, and
CSR. Four additional categories were then added to the codebook based on participant responses: team name, don’t remember, other, and blank.

Responses were coded as pertaining to a team name if they mentioned the team whose Twitter feed they saw (example: “Chicago white socks page, definitely a baseball team with a fairly active twitter page”). Additional information about the team gathered from the Twitter page including team location, number of followers, team colors, profile picture, etc. were coded as “other” (example: “…Their colors are orange and white…”). Responses pertaining to game information, such as “Buster Posey up in the bottom of the 9th, looking for a walk off…” or “The Chicago White Sox post tweets about game information such as the postponing of a game due to rain, which was rescheduled for a split admission double header…” was coded as game information. Additionally, responses mentioning player transactions such as a player being traded or activated from the disabled list were coded as roster updates (example: “Jose Abreu was activated from the 15-day disabled list…”). Responses containing information related to deals meant to entice fans to attend a game were coded as promotions (example: “…The first 20,000 fans will be receiving a White Sox Hat at the game on Sunday…”). Responses were coded as CSR if they mentioned information related to the team’s CSR initiatives, such as “I learned that the San Francisco Giants are involved in their community by wanting to encourage kids to ‘eat right’ and ‘exercise.’” Lastly, participants who indicated that they did not remember any information or specific tweets from the Twitter feed they read were coded as “don’t remember.” When a participant did not write down anything, that response was coded as “blank” and the researcher treated such a response under the assumption that the participant did not remember anything he or she just read.
To gain further insight into a participant’s ability to recall CSR messages disseminated by an MLB team via Twitter, a second question asking participants to write down the tweets they considered to be CSR message. These responses were coded using the same process described above. The resulting categories were as follows: specific CSR initiative from Twitter feed, other CSR initiatives from previous sections of questionnaire, definitional CSR, other categories of tweets, don’t remember, don’t know, number of tweet, none, and blank. A response was coded as “specific CSR initiative from Twitter feed” when it correctly recalled and identified the CSR initiative included in the Twitter feed. Responses that mentioned the Chicago White Sox sponsoring a youth team or giving jerseys to a youth team were coded in this category. Similarly, the same procedure was followed when participants mentioned the Junior Giants and the San Francisco Giants’ efforts to get kids to eat right and exercise.

Participants who mentioned a CSR initiative in his or her response, but it was neither of the two mentioned above but rather one they had read about in an earlier portion of the questionnaire, this response was coded as “other CSR initiatives from previous sections of questionnaire” (example: cancer, visiting the local children’s hospital, etc.). Some participants gave responses such as “The tweets which reference any kind of community betterment, like support of organizations/philanthropies” or the “one about helping others,” referencing CSR in general but failing to mention the specific CSR initiative from the questionnaire. These responses were coded as “definitional CSR.”

When a participant detailed information relating to other types of tweets such as game information, roster updates, or promotions, these responses were coded as “other categories of tweets.” Additionally, when a participant indicated that they did not remember any tweets, they did not know, or they did not believe any of the previous tweets were about CSR, the responses
were coded as “don’t remember,” “don’t know,” and “none,” respectively. An additional category was created for participants who identified a tweet by number (i.e., its order in the sequence of tweets) rather than by content. Lastly, when a participant did not write down anything, that response was coded as “blank” and the researcher treated such a response under the assumption that the participant did not remember anything he or she just read. Because participants were asked to write down all the information they remembered, the categories were not mutually exclusive. See Appendix C for full codebook.

The researcher used the responses from these two open-ended recall questions for each experiment to answer RQ2 and RQ3 before specifically looking at the CSR initiatives and recall of CSR messages in order to test H1b and H2b.

**Pre-Test.** To pre-test the survey and stimulus materials, the researcher administered a pre-test to an undergraduate social media class at the institution at which the research would be conducted. A total of 23 students completed the survey and were asked to provide feedback about the survey. After reviewing the results, the researcher made three changes to the survey. First, an issue with randomization of the stimulus material was corrected to ensure that results could be properly read. Second, in order to solicit more specific feedback in response to the stimulus material, the researcher changed the question measuring recall from “Please write down everything you learned from reading the previous tweets.” to “Please write down everything you learned from reading the previous tweets. Be specific and reference individual tweets if possible.” Lastly, a small issue with item selection for a question regarding participants’ favorite sports was corrected to allow them to select more than one sport.

**Sample**
A total of 344 participants participated in this study. Of that number, two sets of responses were eliminated because the participants did not provide any responses beyond indicating that they wished to proceed with the questionnaire after reading the introduction and consent form; resulting in a final sample of $N = 342$. Participants were undergraduate students at a public research university in the Mid-Atlantic United States. The students in the research pool were from various majors, but all were enrolled in a communication class that required research participation for course credit.

The majority of participants were identified as female (69.3%, $n = 237$) with 29.5% identified as male ($n = 101$). Additionally, a 0.3% ($n = 1$) identified as other and 0.3% ($n = 1$) preferred to not answer. The mean age of the participants was 19.72 years ($SD = 1.73$), with 50% indicating they were sophomores ($n = 171$), 18.7% juniors ($n = 64$), 17.8% freshmen ($n = 61$), and 12.6% seniors ($n = 43$). Additionally, 75.7% ($n = 259$) of participants identified as Caucasian, followed by Asian (11.7% $n = 40$), Hispanic or Latino/Latina (3.2% $n = 11$), and African American (2.0%, $n = 7$). 3.5% indicated that they were bi- or multi-racial ($n = 12$), while 3.2% preferred to not provide an answer ($n = 11$).

**Sports Fandom.** Regarding sports fandom, the majority of participants identified as a sports fan ($n = 286$, 83.6%). Further, using Wann and Branscombe’s (1993) Sport Spectator Identification Scale, the average level of team identification among participants was moderate ($M = 3.34$, $SD = 1.06$) on a 5-point scale, with five being the highest (either “very important,” “very much a fan,” “almost every day,” “dislike very much,” or “always” depending on the question). Here, 35.1% of participants said they were neutral regarding sports fandom ($n = 120$), followed by those who identified themselves as being somewhat of a fan ($n = 77$, 22.5%) and very much a fan ($n = 73$, 21.3%). Additionally, fewer than 20 percent of participants indicated
that they did not consider themselves to be a sports fan \((n = 56, \ 16.4\%)\) and less than 5 percent 16.4% of participants indicated that they were not a fan at all \((n = 16, \ 4.7\%)\).

When asked to indicate their favorite sport, football was most popular \((n = 221, \ 64.6\%)\), followed by basketball \((n = 156, \ 45.6\%)\), baseball \((n = 107, \ 31.3\%)\), soccer \((31.0\%, \ n = 106)\), and hockey \((21.3\%, \ n = 73)\). Less than 15 percent of participants indicated tennis or swimming was their favorite sport, and less than 5 percent did so for golf or wrestling, and 18.4% of participants \((n = 63)\) indicated that they had another favorite sport that was not in the list provided; responses to this question included field hockey, lacrosse, motorsports, rugby, softball, track and field, and volleyball. Further, about half of participants indicated that the NFL was their favorite professional sports league \((n = 176, \ 51.5\%)\). By comparison, less than 16 percent followed the NBA \((n = 54, \ 15.8\%)\), the MLB \((n = 48, \ 14.0\%)\), the NHL \((n = 26, \ 7.6\%)\), or the MLS \((2n = 9, \ 2.6\%)\). 8.2% of participants \((n = 28)\) reported having a different favorite professional sports league, with responses including the English Premier League (soccer), NASCAR, and college football. See Table 3.

The majority of participants \((94.4\%, \ n = 323)\) indicated that they were not fans of the three professional baseball teams used in this experiment. However, 1.8% reported being a Chicago White Sox fan \((n = 6)\), 1.8% reported being a San Francisco Giants fan \((n = 6)\), and 1.5% reported being a Cleveland Indians fan \((n = 5)\). This reduced the possibility of participant bias in responses.

<table>
<thead>
<tr>
<th>Table 3. Sample Characteristics – Sports Fandom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sports Fandom</td>
</tr>
<tr>
<td>Neutral</td>
</tr>
<tr>
<td>Somewhat of a fan of sports</td>
</tr>
<tr>
<td>Very much a fan of sports</td>
</tr>
<tr>
<td>Not really a fan of sports</td>
</tr>
<tr>
<td>Not a fan of sports at all</td>
</tr>
</tbody>
</table>
**Favorite Sport**

<table>
<thead>
<tr>
<th>Sport</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Football</td>
<td>221</td>
<td>64.6</td>
</tr>
<tr>
<td>Basketball</td>
<td>156</td>
<td>45.6</td>
</tr>
<tr>
<td>Baseball</td>
<td>107</td>
<td>31.3</td>
</tr>
<tr>
<td>Soccer</td>
<td>106</td>
<td>31.0</td>
</tr>
<tr>
<td>Hockey</td>
<td>73</td>
<td>21.3</td>
</tr>
<tr>
<td>Other</td>
<td>63</td>
<td>18.4</td>
</tr>
<tr>
<td>Tennis</td>
<td>48</td>
<td>14.0</td>
</tr>
<tr>
<td>Swimming</td>
<td>46</td>
<td>13.5</td>
</tr>
<tr>
<td>Golf</td>
<td>17</td>
<td>5.0</td>
</tr>
<tr>
<td>Wrestling</td>
<td>11</td>
<td>3.2</td>
</tr>
</tbody>
</table>

**Favorite Professional Sports League**

<table>
<thead>
<tr>
<th>League</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Football League</td>
<td>176</td>
<td>51.5</td>
</tr>
<tr>
<td>National Basketball Association</td>
<td>54</td>
<td>15.8</td>
</tr>
<tr>
<td>Major League Baseball</td>
<td>48</td>
<td>14.0</td>
</tr>
<tr>
<td>Other</td>
<td>28</td>
<td>8.2</td>
</tr>
<tr>
<td>National Hockey League</td>
<td>26</td>
<td>7.6</td>
</tr>
<tr>
<td>Major League Soccer</td>
<td>9</td>
<td>2.6</td>
</tr>
</tbody>
</table>

*\( f = \) frequency

**Social Media Use.** Given the focus on social media in this research, participants were asked about their social media use. The majority of participants reported that they use social media (\( n = 333, 97.4\%)\), and 64.3\% of participants indicated that they used social media to follow sports (\( n = 220\)). Of those who indicated using social media, the majority listed used Facebook (\( n = 321, 93.9\%)\), followed by Snapchat (\( n = 296, 86.5\%)\), Instagram (\( n = 270, 78.9\%)\), Twitter (\( n = 209, 61.1\%)\), Pinterest (\( n = 145, 42.4\%)\), Tumblr (\( n = 67, 19.6\%)\), and other social media platforms (\( n = 9, 2.6\%)\). Specifically for following sports, participants indicated they used Twitter (\( n = 152, 69.1\%)\) and Facebook (\( n = 151, 69.6\%)\) the most, followed by Instagram (\( n = 100, 45.5\%)\). Less than 20 percent of participants reported using Snapchat for sports (\( n = 43, 19.5\%)\). See Table 4.

**Table 4. Sample Characteristics – Social Media Use**

<table>
<thead>
<tr>
<th></th>
<th>Entire Sample</th>
<th>( f )</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Media Users</td>
<td>Social media users</td>
<td>333</td>
<td>97.4</td>
</tr>
<tr>
<td></td>
<td>Non social media users</td>
<td>9</td>
<td>2.6</td>
</tr>
</tbody>
</table>
A three-item scale revealed that participants' knowledge of CSR at the beginning of the questionnaire was $M = 2.22$ ($SD = 1.11$) on a scale of one to five, with five representing the highest knowledge. A second three-item scale tested participants’ beliefs regarding the value of CSR; this was reported as $M = 3.97$ ($SD = 0.84$) before the experiments and $M = 4.38$ ($SD = 0.68$) after. The higher mean scores indicate a change in participants’ values of CSR following exposure to the various CSR tweets throughout the questionnaire. See Table 2.

**Data Analysis**

Data was analyzed using SPSS v. 22. Frequencies and percentages were reported to answer RQ1 and test H1a and H2a regarding the recognition measures of each experiment, as well as RQ2, RQ3, H1b, and H2b regarding the various categories of information participants recalled as coded using the thematic analysis procedure. Additionally, frequencies and
percentages were reported to provide information regarding sports fandom and social media use, as well as demographic information. Chi-square analysis determined if there were any relationships or differences between the variables in response to the hypotheses.
CHAPTER 5: RESULTS

In response to RQ1, frequencies and percentages were reported to determine participants’ ability to correctly recognize a tweet from a given category. Results showed nearly 90 percent of participants ($n = 307, 89.8\%$) were able to correctly recognize and identify a CSR tweet, followed by 88.0% ($n = 301$) who were able to correctly recognize and identify a tweet about game information. For promotional tweets, 83.6% of participants ($n = 286$) were able to correctly identify the correct tweet, whereas 82.7% of participants ($n = 283$) were able to correctly identify a tweet about roster updates.

Experiment 1 – Priming

**Recognition.** H1a proposed that priming would have a direct positive influence on a fan’s ability to recognize a CSR message disseminated by an MLB team via Twitter. 50.4% ($n = 172$) of participants were exposed to the Twitter feed containing a prime, whereas 49.6% ($n = 169$) of participants were exposed to the Twitter feed that did not contain a prime. A chi-square analysis was used to test this hypothesis and the results did not indicate a statistically significant difference among the groups: $\chi^2 (4, N = 341), = 4.362, p = .359$. Therefore, the results indicate that the presence of a prime did not significantly affect a participant’s ability to recognize a CSR tweet, failing to support H1a.

**Recall – Open Responses.** RQ2 asked what information fans were able to recall from an MLB team’s Twitter feed in the priming experiment. In response to the first open recall question for the priming experiment, less than 30% of participants recalled CSR information, including those exposed to a prime ($n = 47, 27.3\%$) and those not exposed to a prime ($n = 36, 21.3\%$). By comparison, more than 40% of participants recalled information pertaining to a game (prime: $n = 85, 46.3\%;$ no prime: $n = 73, 43.3\%$), followed by nearly 38% of participants who recalled
information pertaining to team promotions (prime: $n = 62, 36.0\%$; no prime: $n = 68, 40.2\%$), and 32% of participants who recalled information pertaining to roster updates (prime: $n = 55, 32.0\%$; no prime: $n = 54, 32.0\%$).

Chi-square tests were used to determine if there was a difference between exposure to the prime and recall of a certain category. None of these coding categories yielded significant results, and the presence of a prime did not significantly affect recall of CSR information $\chi^2 (1, N = 341), = 1.68, p = .195$, game information $\chi^2 (1, N = 341), = 1.328, p = .259$, roster updates $\chi^2 (1, N = 341), = 0.000, p = .996$, or promotions $\chi^2 (1, N = 341), = 0.634, p = .426$.

In addition to these main four categories, nearly 30 percent of participants recalled information about the team (prime: $n = 46, 26.7\%$; no prime: $n = 49, 29.0\%$) and over 15% recalled other information (prime: $n = 31, 18.0\%$; no prime: $n = 23, 13.6\%$). Chi-square tests revealed that the presence of a prime did not significantly affect recall of team information $\chi^2 (1, N = 341), = 0.215, p = .643$ or other information $\chi^2 (1, N = 341), = 1.246, p = .264$.

Less than 10 percent of participants did not recall any information (prime: $n = 14, 8.1\%$; no prime: $n = 8, 4.7\%$), and just over 13 percent of participants left the question blank (prime: $n = 20, 11.63\%$; no prime: $n = 25, 14.79\%$), resulting in the assumption that the participant did not remember any of the previous information read from the Twitter feed. Chi-square tests revealed that the presence of a prime did not significantly affect a participant not recalling any information $\chi^2 (1, N = 341), = 1.638, p = .201$ or leaving the question blank $\chi^2 (1, N = 341), = .745, p = .388$. See Table 5.

Despite providing insight into the types of messages participants were able to recall from the Twitter feeds, these results indicate that using a priming strategy on Twitter did not result in increased recall for messages. Further, H1b proposed that priming would have a direct positive
influence on a fan’s ability to recall a CSR message disseminated by an MLB team via Twitter.

Looking specifically at the relationship between a prime and recall of CSR information in accordance with H1b, these results failed to support the hypothesis.

### Table 5. Free Recall Responses after Priming Experiment

<table>
<thead>
<tr>
<th>Open Responses</th>
<th>Entire Sample</th>
<th>Prime</th>
<th>No Prime</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$f$</td>
<td>%</td>
<td>$f$</td>
</tr>
<tr>
<td>Game Information</td>
<td>158</td>
<td>46.3</td>
<td>85</td>
</tr>
<tr>
<td>Promotions</td>
<td>130</td>
<td>38.1</td>
<td>62</td>
</tr>
<tr>
<td>Roster Updates</td>
<td>109</td>
<td>32.0</td>
<td>55</td>
</tr>
<tr>
<td>Team</td>
<td>95</td>
<td>27.9</td>
<td>46</td>
</tr>
<tr>
<td>CSR</td>
<td>83</td>
<td>24.3</td>
<td>47</td>
</tr>
<tr>
<td>Other</td>
<td>54</td>
<td>15.8</td>
<td>31</td>
</tr>
<tr>
<td>Blank</td>
<td>45</td>
<td>13.2</td>
<td>20</td>
</tr>
<tr>
<td>Don’t Remember</td>
<td>22</td>
<td>6.5</td>
<td>14</td>
</tr>
</tbody>
</table>

*f* = frequency

**Recall – CSR-Specific Responses.** The same two tests were used in response to the second free recall question to test H1b, which asked participants about CSR-related tweets, specifically. About 20 percent of participants were able to recall the specific CSR initiative mentioned in the Twitter feed (prime: $n = 37$, 21.5%; no prime: $n = 25$, 14.8%). A chi-square test revealed that exposure to a prime did not significantly affect participants’ ability to recall the specific CSR initiative from the Twitter feed $\chi^2 (1, N = 341), = 2.587, p = .108$.

Nearly 15 percent of participants failed to recall a specific CSR initiative and instead provided a definitional explanation of CSR (prime: $n = 24$, 14.0%; no prime: $n = 23$, 13.6%). Additionally, less than 10 percent of participants recalled a CSR initiative from earlier in the questionnaire (prime: $n = 11$, 6.4%; no prime: $n = 15$, 8.9%). Chi-square tests revealed that presence of a prime did not significantly affect a definitional response for CSR $\chi^2 (1, N = 341), = .008, p = .927$, nor a participant’s ability to recall a CSR initiative that was previously mentioned.
on the questionnaire $\chi^2 (1, N = 341) = .745, p = .388$. Just over 5 percent of participants recalled information pertaining to other categories of tweets (prime: $n = 10, 5.8\%$; no prime: $n = 5, 3.0\%$), with 4.4% ($n = 15$) of total participants providing responses coded in this category. A chi-square test revealed that there was not a significant relationship between presence of a prime and recall of information pertaining to categories of tweets other than CSR $\chi^2 (1, N = 341) = 1.653, p = .199$.

Additionally, less than 15 percent of participants indicated that they did not know what CSR information was included on the Twitter feed they previously read (prime: $n = 17, 9.9\%$; no prime: $n = 24, 14.2\%$). Just over 5 percent of participants did not believe any of the information was about CSR (prime: $n = 8, 4.7\%$; no prime: $n = 10, 5.9\%$) and less than 5 percent of participants were only able to recall the number of a tweet they saw, identifying it by its position in the order of tweets on the Twitter feed they read (prime: $n = 8, 4.7\%$; no prime: $n = 7, 4.1\%$). Chi-square tests revealed that presence of a prime did not significantly affect participants indicating that they did not know what CSR information was included $\chi^2 (1, N = 341) = 1.502, p = .220$, nor their belief that none of the information was about CSR $\chi^2 (1, N = 341) = .273, p = .601$. Additionally, a chi-square test revealed that the presence of a prime did not significantly affect a number-only response $\chi^2 (1, N = 341) = 0.53, p = .819$.

Nearly 20 percent of participants left the question blank (prime: $n = 34, 19.8\%$; no prime: $n = 35, 20.7\%$), while less than 15% of participants said they did not remember what they had read on the previous Twitter feed (prime: $n = 22, 12.8\%$; no prime: $n = 23, 13.6\%$). Chi-square tests revealed that the presence of a prime did not significantly affect a participant leaving the question blank $\chi^2 (1, N = 341) = .047, p = .828$ nor a participant indicating that they did not remember any information $\chi^2 (1, N = 341) = .050, p = .823$. See Table 6.
The results from the tests looking specifically at CSR from the answers provided in the second free recall question were the same as those provided in the first free recall question in that they did not provide support for H1b. Further, it was found that primes do not have a significant impact on a participant’s ability to recall CSR information from a Twitter feed or limit the number of responses from participants who could not remember what they had previously read. These results suggest that priming is not an effective strategy for improving recall of CSR messages on Twitter.

Table 6. Free Recall Responses after Priming Experiment

<table>
<thead>
<tr>
<th>CSR-Specific Responses</th>
<th>Entire Sample</th>
<th>Prime</th>
<th>No Prime</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>Blank</td>
<td>69</td>
<td>20.2</td>
<td>34</td>
</tr>
<tr>
<td>Specific CSR Initiative</td>
<td>62</td>
<td>18.2</td>
<td>37</td>
</tr>
<tr>
<td>Definitional CSR</td>
<td>47</td>
<td>13.8</td>
<td>24</td>
</tr>
<tr>
<td>Don’t Remember</td>
<td>41</td>
<td>12.0</td>
<td>17</td>
</tr>
<tr>
<td>Don’t Know CSR from Previous Section of Questionnaire</td>
<td>26</td>
<td>7.6</td>
<td>11</td>
</tr>
<tr>
<td>None CSR</td>
<td>18</td>
<td>5.3</td>
<td>8</td>
</tr>
<tr>
<td>Other Categories of Tweets</td>
<td>15</td>
<td>4.4</td>
<td>10</td>
</tr>
<tr>
<td>Number of Tweet</td>
<td>14</td>
<td>4.4</td>
<td>8</td>
</tr>
</tbody>
</table>

*f = frequency

Experiment 2 – Message Sequencing

Recognition. H2a proposed that message sequencing would have a positive influence on a fan’s ability to recognize a CSR message disseminated via Twitter. 24.3% (n = 83) of participants were exposed to the message sequencing feed that placed the CSR tweet after the game, 24.9% (n = 85) of participants were exposed to the message sequencing feed that placed the CSR tweet before the game, and 24.9 (n = 85) of participants were exposed to the message
sequencing feed that placed the CSR tweet after the game. A control group also contained 25.1% 
(n = 86) of participants. A chi-square did not reveal significant results, and thus H2a was not 
supported: $\chi^2 (1, N = 339), = 9.928, p = .622$. Therefore, the results indicate that message 
sequencing did not result in a significant difference in a participant’s ability to recognize a CSR 
tweet, failing to support hypothesis 2a.

**Recall – Open Responses.** RQ3 asked what information fans were able to recall from 
Twitter feeds disseminated by an MLB team in the message sequencing experiment. The same 
opening coding and testing procedures were used to answer RQ3. In response to the first free 
recall question for the message sequencing experiment, nearly 70 percent of participants recalled 
information related to the CSR tweet (before game: $n = 59, 69.4%$; during game: $n = 62, 72.9%$; 
after game: $n = 57, 68.7$; control: $n = 57, 66.3%$). A chi-square analysis revealed that there was 
not a significant relationship between message sequencing and recall of CSR messages $\chi^2 (3, N = 
339), = .915, p = .822$.

Nearly 65 percent of participants recalled information about promotions (before game: $n 
= 50, 58.8%$; during game: $n = 53, 62.4%$; after game: $n = 58, 69.9%$; control: $n = 56, 65.1%$), 
and about half of participants recalled information about roster updates (before game: $n = 38, 
44.7%$; during game: $n = 37, 43.5%$; after game: $n = 56, 67.5%$; control: $n = 43, 50.0%$) and 
game information (before game: $n = 40, 47.1%$; during game: $n = 41, 48.2%$; after game: $n = 43, 
51.8%$; control: $n = 41, 47.7%$). Chi-square tests revealed that message sequencing did not 
significantly affect recall of information about promotions $\chi^2 (3, N = 339), = 2.381, p = .497$, 
roster updates $\chi^2 (3, N = 339), = 12.279, p = .006$, or game information $\chi^2 (3, N = 339), = .456, p 
= .928$. 

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Outside of the main four categories, nearly 40 percent of participants recalled information about the team (before game: \( n = 28, 32.9\% \); during game: \( n = 33, 38.8\% \); after game: \( n = 38, 45.8\% \); control: \( n = 32, 32.7\% \)), while less than 10% recalled other information (before game: \( n = 8, 9.4\% \); during game: \( n = 10, 11.8\% \); after game: \( n = 5, 6.0\% \); control: \( n = 8, 9.3\% \)). Chi-square tests revealed that message sequencing did not significantly affect recall of information about the team \( \chi^2 (3, N = 339), = 3.026, p = .388 \) or other information \( \chi^2 (3, N = 339), = 1.685, p = .640 \).

Less than 1 percent of participants were unable to recall any information (before game: \( n = 0, 0.0\% \); during game: \( n = 1, 1.2\% \); after game: \( n = 1, 1.2\% \); control: \( n = 1, 1.2\% \)), and just over 5 percent left the question blank resulting in the assumption of inability to recall information (before game: \( n = 5, 5.9\% \); during game: \( n = 7, 8.2\% \); after game: \( n = 3, 3.6\% \); control: \( n = 4, 4.7\% \)). Chi-square tests revealed that message sequencing did not significantly affect participants’ inability to recall information \( \chi^2 (3, N = 339), = 1.014, p = .798 \) or participants leaving the question blank \( \chi^2 (3, N = 339), = 1.893, p = .595 \). See Table 7.

While these results answer RQ3 and reveal the types of information fans are able to recall, the lack of a significant relationship between presence of a prime and a participant’s ability to recall CSR messages does not support H2b.

Table 7. Free Recall Responses after Message Sequencing Experiment

<table>
<thead>
<tr>
<th>Open Responses</th>
<th>Entire Sample</th>
<th>After Game</th>
<th>Before Game</th>
<th>During Game</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( f )</td>
<td>( % )</td>
<td>( f )</td>
<td>( % )</td>
<td>( f )</td>
</tr>
<tr>
<td>CSR</td>
<td>234</td>
<td>69.3</td>
<td>57</td>
<td>68.7</td>
<td>59</td>
</tr>
<tr>
<td>Promotions</td>
<td>217</td>
<td>64.0</td>
<td>58</td>
<td>69.9</td>
<td>50</td>
</tr>
<tr>
<td>Roster Updates</td>
<td>174</td>
<td>51.3</td>
<td>56</td>
<td>67.6</td>
<td>38</td>
</tr>
<tr>
<td>Game Information</td>
<td>165</td>
<td>48.7</td>
<td>43</td>
<td>51.8</td>
<td>40</td>
</tr>
<tr>
<td>Team</td>
<td>131</td>
<td>38.6</td>
<td>38</td>
<td>45.8</td>
<td>28</td>
</tr>
<tr>
<td>Other</td>
<td>31</td>
<td>9.1</td>
<td>5</td>
<td>6.0</td>
<td>8</td>
</tr>
</tbody>
</table>
Recall – CSR-Specific Responses. This experiment also used a second free recall question to measure H2b, and this question looked specifically at the CSR information participants recalled. Two-thirds of participants recalled the specific CSR initiative mentioned in the Twitter feed (before game: n = 58, 68.2%; during game: n = 57, 67.1%; after game: n = 53, 63.9%; control: n = 56, 65.1%). By comparison, less than 5 percent of participants recalled a CSR initiative that was mentioned in a previous section of the questionnaire (before game: n = 5, 5.9%; during game: n = 3, 3.5%; after game: n = 2, 2.4%; control: n = 5, 5.8%), and only 2% of participants provided a definitional response of CSR before game: n = 1, 1.2%; during game: n = 3, 3.5%; after game: n = 2, 2.4%; control: n = 1, 1.2%). Despite this large gap, chi-square tests revealed that message sequencing did not significantly affect recall of the specific CSR initiative mentioned $\chi^2(3, N = 339), = .431, p = .934$, recall of a CSR initiative from previous sections of the questionnaire $\chi^2(3, N = 339), = 1.778, p = .620$, or a definitional response $\chi^2(3, N = 339), = 1.628, p = .653$.

Less than 10 percent of participants recalled information in other categories of tweets outside of CSR (before game: n = 8, 9.4%; during game: n = 7, 8.2%; after game: n = 7, 8.4%; control: n = 2, 2.3%). A chi-square test revealed that there was not a significant relationship between message sequencing and recall of information from other categories of tweets $\chi^2(3, N = 339), = 4.061, p = .255$.

Less than 5 percent of participants only identified a tweet by its number and were unable to reference any specific content (before game: n = 4, 4.7%; during game: n = 1, 1.2%; after game: n = 4, 4.8%; control: n = 5, 5.8%). Additionally, less than 3 percent of participants said
they did not believe any of the information mentioned was about CSR (before game: \( n = 0 \), 0.0%; during game: \( n = 1 \), 1.2%; after game: \( n = 3 \), 3.6%; control: \( n = 6 \), 7.0%). Additionally, nearly the same percentage of participants said they did not know what information was about CSR (before game: \( n = 4 \), 4.7%; during game: \( n = 0 \), 0.0%; after game: \( n = 1 \), 1.2%; control: \( n = 4 \), 4.7%). Chi-square tests revealed that message sequencing did not have a significant affect on participants indicating that they did not know what information was about CSR \( \chi^2(3, N = 339) = 5.703, p = .127 \) nor participants saying that they did not believe any of the information was about CSR \( \chi^2(3, N = 339) = 8.517, p = .036 \) or participants only recalling a number of a tweet \( \chi^2(3, N = 339) = 2.660, p = .447 \).

Less than 10 percent of participants left the question blank resulting in the assumption of an inability to recall information (before game: \( n = 5 \), 5.9%; during game: \( n = 10 \), 11.8%; after game: \( n = 7 \), 8.4%; control: \( n = 6 \), 7.0%), and less than 5% of participants stated that they did not remember any information (before game: \( n = 0 \), 0.0%; during game: \( n = 2 \), 2.4%; after game: \( n = 4 \), 4.8%; control: \( n = 2 \), 2.3%). Chi-square tests revealed that message sequencing did not significantly affect a participant leaving a question blank \( \chi^2(3, N = 339) = 2.202, p = .532 \) or stating that they did not remember any information \( \chi^2(3, N = 339) = 4.234, p = .237 \).

The results from both free recall questions in the message sequencing experiment were found to be not significant. Therefore, H2b was not supported. Additionally, these findings not illuminate the best location within a Twitter feed for a CSR message in order to enhance recall, as there was no clear placement of a tweet that significantly impacted recall. Based on these findings, message sequencing is not an effective strategy for improving recall of CSR messages from a Twitter feed.

| CSR-Specific Responses |
|------------------------|---|
| Table 8. Free Recall Responses after Message Sequencing Experiment |

54
<table>
<thead>
<tr>
<th></th>
<th>Entire Sample</th>
<th>After Game</th>
<th>Before Game</th>
<th>During Game</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$f$</td>
<td>$%$</td>
<td>$f$</td>
<td>$%$</td>
<td>$f$</td>
</tr>
<tr>
<td>Specific CSR Initiative</td>
<td>224</td>
<td>66.1</td>
<td>53</td>
<td>63.9</td>
<td>58</td>
</tr>
<tr>
<td>Blank</td>
<td>28</td>
<td>8.3</td>
<td>7</td>
<td>8.4</td>
<td>5</td>
</tr>
<tr>
<td>Other Categories of Tweets</td>
<td>24</td>
<td>7.1</td>
<td>7</td>
<td>8.4</td>
<td>8</td>
</tr>
<tr>
<td>CSR from Previous Section of Questionnaire</td>
<td>15</td>
<td>4.4</td>
<td>2</td>
<td>2.4</td>
<td>5</td>
</tr>
<tr>
<td>Number of Tweet</td>
<td>14</td>
<td>4.1</td>
<td>4</td>
<td>4.8</td>
<td>4</td>
</tr>
<tr>
<td>None CSR</td>
<td>10</td>
<td>2.9</td>
<td>3</td>
<td>3.6</td>
<td>0</td>
</tr>
<tr>
<td>Don’t Know</td>
<td>9</td>
<td>2.7</td>
<td>1</td>
<td>1.2</td>
<td>4</td>
</tr>
<tr>
<td>Don’t Remember</td>
<td>8</td>
<td>2.4</td>
<td>4</td>
<td>4.8</td>
<td>0</td>
</tr>
<tr>
<td>Definitional CSR</td>
<td>7</td>
<td>2.1</td>
<td>2</td>
<td>2.4</td>
<td>1</td>
</tr>
</tbody>
</table>

*f* = frequency

**Observed Results**

While the statistical findings from this study did not support the hypotheses, the observed findings proved to be quite interesting. The responses to the second set of free recall questions (those following the message sequencing experiment) revealed much higher frequencies than did the responses from the first set of free recall questions (following the priming experiment). By comparison, 66.1% ($n = 224$) of participants were able to recall the specific CSR initiative mentioned in the Twitter feed they had just read in the message sequencing experiment, whereas only 18.2% ($n = 62$) of the participants did so in the priming experiment. Further, only 0.9% ($n = 3$) of the participants in the message sequencing experiment directly stated that they did not recall any information from the Twitter feed they read, and 5.9% ($n = 20$) of the participants left the response blank, resulting in the assumption of no information recalled. By comparison, 6.5%
(n = 22) of the participants in the priming experiment stated that they did not remember any information, while 13.2% (n = 45) left the response blank. See Table 9.1

Table 9. Comparing Priming and Message Sequencing Free Recall Responses

<table>
<thead>
<tr>
<th>Difference</th>
<th>Priming</th>
<th>Message Sequencing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>CSR</td>
<td>45.0</td>
<td>83</td>
</tr>
<tr>
<td>Promotions</td>
<td>25.9</td>
<td>130</td>
</tr>
<tr>
<td>Roster Updates</td>
<td>19.3</td>
<td>109</td>
</tr>
<tr>
<td>Team</td>
<td>10.7</td>
<td>95</td>
</tr>
<tr>
<td>Game Information</td>
<td>2.4</td>
<td>158</td>
</tr>
<tr>
<td>Don’t Remember</td>
<td>- 5.6</td>
<td>22</td>
</tr>
<tr>
<td>Other</td>
<td>- 6.7</td>
<td>54</td>
</tr>
<tr>
<td>Blank</td>
<td>- 7.6</td>
<td>45</td>
</tr>
</tbody>
</table>

*f* = frequency

---

Additional analyses were run to determine if baseball fandom was a potential mediating variable in the two experiments. Various factors including a participant’s favorite sport (specifically baseball), their use of social media to follow the MLB, and their use of Twitter to follow the MLB were isolated and yielded no statistically significant support for the potential of baseball fandom as a mediating variable. As a result, it is argued that fandom and a participant’s interest in baseball do not affect engagement with CSR tweets.
CHAPTER 6: DISCUSSION

Previous research on CSR in sport has illuminated the value of CSR for professional sports teams and organizations (i.e., Babiak & Wolfe, 2009; Walker & Kent, 2009; Smith & Westerbeek, 2007). Despite the increased scholarly attention given to this area of research and the value placed on this topic, limited research has been conducted regarding the effectiveness of CSR messages disseminated. Social media has been used as a platform for CSR communication in recent years, yet there is gap in the literature regarding how professional sports teams – a group resoundingly active on social media platforms such as Twitter – have utilized this medium of communication. This study sought to fill this gap in literature by conducting experiments to test the effectiveness of CSR messages disseminated by MLB teams on Twitter by using two well-known models, priming and message sequencing, to test recognition and recall of these messages.

Summary of Findings

RQ1 asked if fans were able to recognize CSR in a message disseminated by an MLB team via Twitter. Findings for RQ1 revealed that fans were able to do so; further, they correctly recognized and identified CSR in a message at a higher frequency (89.8%, n = 307) than they did for the other three categories of tweets used throughout the questionnaire – game information (88.0%, n = 301), promotions (83.6%, n = 286), and roster updates (82.7%, n = 283). While the differences were minimal, these results show that fans are able to recognize what CSR is and identify it in a tweet from an active Twitter feed. This finding is especially interesting when considered in the context of participants’ self-reported knowledge of CSR based on a three-item scale (M = 2.22, SD = 1.11). Despite a somewhat average level of familiarity with CSR and CSR in professional sports, participants were still able to recognize what CSR was, suggesting they
might have an idea about what is related to CSR but be uncertain regarding a formal definition of the term.

H1a and H1b tested the effects of priming on recognition and recall, predicting that priming would have a direct positive influence on both dependent variables. For H1a, results indicated that exposure to a prime did not have a significant impact on a participants’ ability to recognize a CSR message in a tweet disseminated by an MLB team. The results also failed to support H1b, as it was found that there is not a significant relationship between exposure to a prime and a participants’ ability to recall CSR from a tweet disseminated by an MLB team. These results are inconsistent with previous research on priming and do not align with Wyer and Srull’s (1989) assertion that subjects that have been primed become more accessible. Further, in response to the first free recall questions in the priming experiment, some participants wrote that they recalled mentioned of a tweet telling readers to check back later for a big announcement (the priming tweet), but there was no indication that participants actually recognized that the information provided later was meant to work in conjunction with that prime.

These results have significant implications for priming research, especially in regards to priming and social media. Historically, priming has been an active paradigm in media effects since the 1980s (Roskos-Ewoldsen et al., 2007), suggesting an origin in traditional news outlets. Roskos-Ewoldsen et al. (2007) discussed certain types of media that are compatible for priming, including a typical newscast at the most basic level. Despite claims that the media is a likely source of priming today, the results from this study can be used to argue that social media is not a platform on which priming is readily available or successful. These findings suggest that media effects from more traditional forms of mass media may not be applicable to social media.
Although limited research has been conducted on CSR and priming, the findings from this study are inconsistent with Wang’s (2007) assertion that the effects of priming, working in conjunction with framing, on issues of CSR make priming “a necessary condition for effective relations to be established between an organization and its publics” (p. 127). Despite the different contexts of Wang’s (2007) study looking at priming in terms of how it works with framing to affect peoples’ judgment of an organization and this study, one that tested priming as an independent strategy to enhance message effectiveness, it is still important to consider what this study adds to the body of knowledge available on CSR and priming research.

The same argument that media effects from more traditional forms of mass media are not applying to social media made as a result of the priming experiment can be made following the results of the message sequencing experiment. H2a predicted a direct positive influence from message sequencing on a fan’s ability to recognize a CSR message disseminated by an MLB team via Twitter. The results failed to support this hypothesis, as well as H2b, which predicted a direct positive influence from message sequencing on a fan’s ability to recall CSR from a message disseminated by an MLB team via Twitter. Despite the argument that the context in which a message is disseminated is important based on the assumption that a prime’s effect is a function of its intensity and recency, the findings in this study do not reveal significant effects of message sequencing on recognition or recall.

The observed findings indicate that message sequencing may be more influential than priming in terms of the effects the paradigms have on message effectiveness as measured by recognition and recall. This argument further suggests that primes may be ineffective on social media, particularly Twitter, or, at the very least, less effective on this platform than with more traditional forms of mass media. Additionally, these results could lead to the consideration of an
attention variable within the LC4MP. Since participants participated in both experiments – first the priming one, then the message sequencing one – it is possible that participants realized they needed to pay closer attention to the information they were reading as they approached the second experiment. As a result, this information suggests that attention may be a moderating factor when it comes to a participant’s ability to recognize or recall a message; not only must a participant first recognize that a CSR message is in fact a CSR message in order to recall it as such, but participants must read through messages with enough attention to detail to be able to recognize or recall any information presented. This finding is consistent with previous research into media effects from Gantz (1978) who found that people who watch television news with the primary goal of gathering information recall more information than other viewers. If social media users read through a Twitter feed with the goal of gathering information, they are more likely to recall that information, as indicated by these observed results.

RQ2 and RQ3 provided further insight into the information fans recalled from the Twitter feeds disseminated by an MLB team. This information was used to illuminate what fans did recall and was especially useful considering the fact that results did not support the hypotheses. RQ2 revealed that, within the priming experiment, participants recalled information about games, promotions, roster updates, and the team at a higher frequency than they recall information about CSR. By comparison, RQ3 revealed that, within the message sequencing experiment, participants recalled information about CSR more than any other category; this finding provides support for the observed results suggesting that message sequencing may be a more influential strategy than priming when it comes to message recognition and recall.

Practical Implications
This study has several practical implications for sports professionals seeking to find more effective strategies to communicate a team or organization’s CSR initiatives with fans and the general public. Within the sports communication model in which teams communicate about game information, statistics, roster updates, promotions, team memorabilia and gear (i.e., the team store), fan involvement, and CSR, among other topics, this research shed light on ways that are not necessarily effective in getting CSR to stand out from other topics. First, in a business where time is considered money, this study reveals that it is not worth a team’s time to prime a CSR message, as it will not significantly enhance a fan’s recognition or recall of that message.

Further, while there was no statistically significant relationship between message sequencing or the recall or recognition of a CSR message, the observed results show that the order in which messages are presented and their context for doing so may be of important consideration to sports communication practitioners. For example, tweeting about CSR during a late-inning comeback attempt by the team may not be the best context to ensure that CSR message has the best chance of being recognized or recalled. Because of the numerous benefits CSR affords not only a community, but also the organization is conducting CSR initiatives, it is important that sports organizations continue to find effective ways to communicate their CSR activity to fans and the general public.

Because there was no statistical significance to support baseball fandom as a mediating variable affecting a participants’ engagement with CSR tweets, it could also be useful for baseball teams and organizations to consider how they could better target tweets to reach fans specifically. While it is beneficial to examine the results from this research in context of their generalizability – results are applicable to all participants, not simply a subset of the Twitter
population – further investigation into targeted tweets could lead to potentially stronger CSR communication via Twitter from MLB teams with greater recall and recognition rates.

**Theoretical Implications**

This study has theoretical implications for both priming research and the LC4MP, as previously discussed. In summary, this study found that priming and media effects from more traditional forms of media may not be applicable to social media. Additionally, findings suggest that a person’s level of attention paid to information they are reading may directly affect his or her ability to recall or recognize that information. This is consistent with the LC4MP that suggests people are information processors, but a person’s ability to process information is limited (Lang, 2000). However, while the LC4MP includes three major subprocesses – encoding, storage, and retrieval – detailing how information is processed (Lang, 2000; Lang, 2006), there is not a focus on attention as it affects a person’s exposure to a message in the first place, or early in the encoding process.

This study applied the LC4MP in a new context, using it for the study of social media messaging. With platforms that allow for high volumes of messages to be released at the push of a thumb, the idea of a person’s ability to take in limited information is one that deserves immense consideration in this context. The LC4MP served as a strong conduit to guide the research for this study, and while it did not emerge from a social media background, this study extended it to social media, laying the groundwork for future research in what is sure to be ripe area of research.

**Limitations**

This study was successful in testing the effects of priming and message sequencing on a person’s ability to recognize and recall a CSR message disseminated by an MLB team via
Twitter. Nonetheless, certain limitations are important to note. First, participants reported an average knowledge of CSR as 2.22 on a one to five scale ($M = 2.22$, $SD = 1.11$). Although this did not appear to hinder their ability to recognize CSR message, as described above, some participants stated that a more in-depth definition of CSR than the one provided would have been helpful as they completed the questionnaire. Additionally, by having participants complete both experiments, it is possible that their responses to the second may have been more complete than were their responses to the first as they gained a better idea of what was being asked or information sought as they moved from one experiment to the next.

While the stimulus material was designed to look like an actual Twitter profile to present the tweets in a realistic manner, it is possible that the prime was too subtle in the first experiment. The researcher attempted to develop a strong prime by changing the date of the prime tweet and the CSR tweet the prime was meant to elevate in salience, as well as mentioning the community organization in each tweet. However, despite these efforts, the prime may have been too subtle, which could have limited the participants’ ability to engage with the prime tweet.

**Future Research**

As detailed in the discussion of practical and theoretical implications above, this study provides numerous considerations for future research in the various areas incorporated in this research. First, the topic of CSR in sport has garnered increased attention in recent years, and this study expands on that knowledge by examining the effectiveness of CSR messages disseminated. As one of the first studies to do so, this study paves the way for future research in this area, as well as future research on CSR communication on social media. Future research could further examine CSR communication on various social media platforms, including but not limited to
Twitter, to determine more effective ways for teams to communicate this information to the general public and their fans. Specifically, research could examine messages targeted at various Twitter subsets, including fans, community organizations, MLB personnel, etc., to investigate if messages designed for specific audiences are more effective in increasing the recognition and recall of CSR messages disseminated on social media. Additionally, considering the vast amount of messages MLB teams release and the fact that CSR is only one of the many topics about which teams communicate, it would be beneficial to study a team’s overall social media strategy to determine a best fit for CSR messages within this web of communication.

Further, because professional sports organizations often conduct operations outside of traditional business hours, special consideration should be given to a team’s overall communication strategy in order to investigate if there are best practices for when teams should communicate about certain aspects of operations, including CSR. The majority of professional baseball games are played at night, which expands the window of time for a team to tweet about relevant information. Based on these schedule considerations and the concept of message sequencing as explored in this research, future research should examine the 24-hour news cycle of a professional baseball team on social media to determine prime times for media communication about various topics.

Future research should also be conducted on priming in both contexts of CSR and social media. The results from this study have interesting implications for the latter, and future research should be conducted to determine if media effects from more traditional forms of mass media such as priming and message sequencing can be better applied to social media. Specifically, it would be beneficial to develop and test different primes to determine which, if any, are most effective at elevating an issue to salience for social media users. In a social media context
specifically, aspects of communication unique to social media such as hashtags or direct mentions of other users through the “@” feature or by tagging another account could be worthy of examination to determine if primes can be more effective on social media if they draw on some of the characteristics that separate social media from more traditional forms of mass media.

Researchers need to revisit the idea of priming and message sequencing on social media and their effects on social media users, including their ability to recognize and recall messages. Future research should also examine message effectiveness by considering an organization’s goals of social media use beyond memory considerations (i.e., behavioral or attitudinal motivations). While this research focused exclusively on Twitter, additional research is warranted to examine the effectiveness of priming and message sequencing on other social media platforms frequently utilized by professional sports organizations, including Facebook, Instagram, and Snapchat. Each of these platforms allow for message development of varying lengths and with various media content, which may also affect the effectiveness of the messages.

Additionally, the implications from this study are not limited to a sports context, as the overall finding that more traditional paradigms of media effects such as priming and message sequencing are not applying to social media can be generalized to social media communication beyond sports. As a result, future research could examine this finding in a variety of contexts by investigating the social media communication from other organizations or businesses. Further, while this research tested a participant’s ability to recognize and recall CSR messages specifically, future consideration could also be given to messages focused on different topics or aspects of an organization’s operations.

Ultimately, the argument that more traditional paradigms of media effects may not be applicable to social media has vast implications beyond the context in which this study was
conducted, priming this area of research for much future consideration in a technologically-dependent age in which many organizations use social media to communicate with stakeholders.
CHAPTER 7: CONCLUSION

CSR in sports is an area of interest gaining increased traction among academic scholars, and, within this field is the topic of CSR communication. This study focused on how sports organizations communicate their CSR initiatives on Twitter, seeking to fill a gap in literature about the effectiveness of CSR messages organizations release. This study successfully investigated the message effectiveness of CSR messages disseminated by MLB teams on Twitter in regards to a fan’s ability to recognize or recall these messages. By testing for the effects of priming and message sequencing, this study provided insight into how media effects paradigms from more traditional forms of mass media are not applying to social media. These findings provide an array of implications for and future research possibilities in CSR in sport, media effects (particularly priming, message sequencing, and the LC4MP), and social media.


APPENDIX A: QUESTIONNAIRE

Sports and Social Media Messages

Q36 This questionnaire investigates communication research and media effects questions in the context of sport. Please read through and respond to each question. It should not take you more than 20 minutes to fully complete this questionnaire.

Sports Fans and Social Media Messages

Investigators: Betsy Haugh (bhaugh01@vt.edu) Brandi Watkins (bawatkins@vt.edu)

I. Purpose of this Research Project  This project aims to investigate the effectiveness of corporate social responsibility (CSR) messages disseminated by professional baseball teams via Twitter. Results will be used for thesis research and may be used for publication at some point in the future. You will be among 400 participants from the undergraduate student population at a large, southeastern U.S. research university.

II. Procedures  Should you agree to participate, from the Virginia Tech Communication Department SONA website you will be directed to an online survey. In total, this task will require approximately 20 minutes of your time (maximum). There will be no additional requirements after completing the questionnaire.

III. Risks  There is minimal risk associated with this research project. You will be asked to answer questions about your social media use and how you use social media to follow sports teams. Your participation in this study is completely voluntary, and you may skip any questions you do not want to answer or end participation in the study at any time. You must be at least 18 years old to participate. Additionally, because of the purpose of this project, it is preferred that you are currently following at least one sports team or have done so in the past.

IV. Benefits  This study can contribute to the overall knowledge of the field, as well as provide public relations practitioners in the sports industry with valuable information related to developing an effective social media strategy. No promise or guarantee of benefits has been made to encourage you to participate.

V. Extent of Anonymity and Confidentiality  Data collected from participants will include identifying information such as e-mail addresses and names. This data will be used only to discern what students should receive course credit for their participation. Otherwise, identifying information will remain confidential and stored separately from the data used for item analysis. Course instructors with password protected accounts will be able to see what students participated, but not the study data used for item analysis. Beyond these instructors, at no time will the researchers release identifiable results of the study to anyone other than individuals working on the project without your written consent. The Virginia Tech (VT) Institutional Review Board (IRB) may view the study’s data for auditing...
purposes. The IRB is responsible for the oversight of the protection of human subjects involved in research.

VI. Compensation  All participants will receive the arranged course credit provided through the communication department’s research participation system.

VII. Subject’s Consent  By checking here I affirm that I have read the Consent Form and conditions of this project, have had all my questions answered, and hereby acknowledge the above and give my voluntary consent.

VIII. Freedom to Withdraw  It is important for you to know that you are free to withdraw from this study at any time without penalty. You are free not to answer any questions that you choose or respond to what is being asked of you without penalty. Please note that there may be circumstances under which the investigator may determine that a subject should not continue as a subject. Should you withdraw or otherwise discontinue participation, you will be compensated for the portion of the project completed in accordance with the Compensation section of this document.

IX. Questions or Concerns  Should you have any questions about this study, you may contact one of the research investigators whose contact information is included at the beginning of this document. Should you have any questions or concerns about the study’s conduct or your rights as a research subject, or need to report a research-related injury or event, you may contact the VT IRB Chair, Dr. David M. Moore at moored@vt.edu or (540) 231-4991.

Proceed to Survey (1)

Q34 To start off, we'd like to get to know a little about you as a sports fan, starting with the following question: Are you a sports fan?

- Yes (1)
- No (2)

Q60 On a scale of 1-5 with 5 being the highest, how would you rate yourself as a sports fan?

<table>
<thead>
<tr>
<th>1 (1)</th>
<th>2 (2)</th>
<th>3 (3)</th>
<th>4 (4)</th>
<th>5 (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not a fan at all: Very much a fan (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q61 On a scale of 1-5 with 5 being the highest, how would you rate yourself as a sports fan for each of the following professional sports leagues?

<table>
<thead>
<tr>
<th>Sports League</th>
<th>Not a fan at all (1)</th>
<th>Not really a fan (2)</th>
<th>Neutral (3)</th>
<th>Somewhat of a fan (4)</th>
<th>Very much a fan (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLB (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MLS (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NBA (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFL (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NHL (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q50 Which of the following sports would you say is your favorite? (check all that apply)
- Baseball (1)
- Basketball (2)
- Football (3)
- Golf (4)
- Hockey (5)
- Soccer (6)
- Swimming (7)
- Tennis (8)
- Wrestling (9)
- Other (please specify) (10) ____________________

Q51 Of the following professional sports leagues, which one do you consider yourself to be a fan of most?
- MLB (1)
- MLS (2)
- NBA (3)
- NFL (4)
- NHL (5)
- Other (please specify) (6) ____________________

Q36 How important is it to you that your favorite team wins?

<table>
<thead>
<tr>
<th>Importance Level</th>
<th>1 (1)</th>
<th>2 (2)</th>
<th>3 (3)</th>
<th>4 (4)</th>
<th>5 (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not important: Very important (1)</td>
<td>⬜</td>
<td>⬜</td>
<td>⬜</td>
<td>⬜</td>
<td>⬜</td>
</tr>
<tr>
<td>Q38 How strongly do you see yourself as a fan of your favorite team?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all a fan: Very much a fan (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (1)</td>
<td>2 (2)</td>
<td>3 (3)</td>
<td>4 (4)</td>
<td>5 (5)</td>
<td></td>
</tr>
<tr>
<td><img src="1" alt="Circle" /></td>
<td><img src="2" alt="Circle" /></td>
<td><img src="3" alt="Circle" /></td>
<td><img src="4" alt="Circle" /></td>
<td><img src="5" alt="Circle" /></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q40 How strongly do your friends see you as a fan of your favorite team?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all a fan: Very much a fan (1)</td>
</tr>
<tr>
<td>1 (1)</td>
</tr>
<tr>
<td><img src="1" alt="Circle" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q42 During the season, how closely do you follow your favorite team?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never: Almost every day (1)</td>
</tr>
<tr>
<td>1 (1)</td>
</tr>
<tr>
<td><img src="1" alt="Circle" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q44 How important is being a fan of your favorite team to you?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not important: Very important (1)</td>
</tr>
<tr>
<td>1 (1)</td>
</tr>
<tr>
<td><img src="1" alt="Circle" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q46 How much do you dislike your favorite team's rivals?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not dislike: Dislike very much (1)</td>
</tr>
<tr>
<td>1 (1)</td>
</tr>
<tr>
<td><img src="1" alt="Circle" /></td>
</tr>
</tbody>
</table>
Q48 How often do you display your favorite team’s name or insignia at your place of work, where you live, or on your clothing?

<table>
<thead>
<tr>
<th></th>
<th>1 (1)</th>
<th>2 (2)</th>
<th>3 (3)</th>
<th>4 (4)</th>
<th>5 (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never:Always</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Q8 Next we’d like to get to know a bit about how you use social media, beginning with the following question: Do you use social media?

- Yes (1)
- No (2)

Q53 Do you use social media to follow sports?

- Yes (1)
- No (2)

Answer If Next we'd like to get to know a bit about how you use social media, beginning with the following... Yes Is Selected

Q9 Which of the following social media sites do you currently use?

- Facebook (1)
- Twitter (2)
- Instagram (3)
- Snapchat (4)
- Tumblr (5)
- Pinterest (6)
- Other (please specify) (7) ____________________

Answer If Do you use social media to follow sports? Yes Is Selected

Q11 Which of the following social media sites do you use to follow sports?

- Facebook (1)
- Twitter (2)
- Instagram (3)
- Snapchat (4)
- Tumblr (5)
- Pinterest (6)
- Other (please specify) (7) ____________________
Q47 What leagues do you follow through social media?
- MLB (1)
- MLS (2)
- NBA (3)
- NFL (4)
- NHL (5)
- Other (please specify) (6) ____________________

Q53 For professional teams that you follow on Twitter, to which league do they belong? (check all that apply)
- MLB (1)
- MLS (2)
- NBA (3)
- NFL (4)
- NHL (5)
- Other (please specify) (6) ____________________
Q54 Because you indicated that you follow teams in the MLB on Twitter, please tell us which teams those are. (check all that apply)

- Official MLB account (1)
- Arizona Diamondbacks (31)
- Atlanta Braves (2)
- Baltimore Orioles (3)
- Boston Red Sox (4)
- Chicago Cubs (5)
- Chicago White Sox (6)
- Cincinnati Reds (7)
- Cleveland Indians (8)
- Colorado Rockies (9)
- Detroit Tigers (10)
- Houston Astros (11)
- Kansas City Royals (12)
- Los Angeles Dodgers (13)
- Los Angeles Angels (16)
- Miami Marlins (14)
- Milwaukee Brewers (15)
- Minnesota Twins (17)
- New York Mets (18)
- New York Yankees (19)
- Oakland Athletics (20)
- Philadelphia Phillies (21)
- Pittsburgh Pirates (22)
- San Diego Padres (23)
- San Francisco Giants (24)
- Seattle Mariners (25)
- St. Louis Cardinals (26)
- Tampa Bay Rays (27)
- Texas Rangers (28)
- Toronto Blue Jays (29)
- Washington Nationals (30)
Answer: If for professional teams that you follow on Twitter, to which league do they belong? (check all that apply) MLS is selected.

Q55 Because you indicated that you follow teams in the MLS on Twitter, please tell us which teams those are. (check all that apply)

- Official MLS account (1)
- Chicago Fire SC (21)
- Colorado Rapids (2)
- Columbus Crew SC (3)
- D.C. United (4)
- FC Dallas (5)
- Houston Dynamo (6)
- L.A. Galaxy (7)
- Montreal Impact (8)
- New England Revolution (9)
- New York City FC (10)
- New York Red Bulls (11)
- Orlando City SC (12)
- Philadelphia Union (13)
- Portland Timbers (14)
- Real Salt Lake (15)
- San Jose Earthquakes (16)
- Seattle Sounders FC (17)
- Sporting Kansas City (18)
- Toronto FC (19)
- Vancouver Whitecaps FC (20)
Q56 Because you indicated that you follow teams in the NBA on Twitter, please tell us which teams those are. (check all that apply)

- Official NBA account (1)
- Atlanta Hawks (32)
- Boston Celtics (2)
- Brooklyn Nets (3)
- Charlotte Hornets (4)
- Chicago Bulls (5)
- Cleveland Cavaliers (6)
- Dallas Mavericks (7)
- Denver Nuggets (8)
- Detroit Pistons (9)
- Golden State Warriors (10)
- Houston Rockets (11)
- Indiana Pacers (12)
- Los Angeles Clippers (13)
- Los Angeles Lakers (14)
- Memphis Grizzlies (15)
- Miami Heat (16)
- Milwaukee Bucks (17)
- Minnesota Timberwolves (18)
- New Orleans Pelicans (20)
- New York Knicks (21)
- Oklahoma City Thunder (22)
- Orlando Magic (23)
- Philadelphia 76ers (24)
- Phoenix Suns (25)
- Portland Trail Blazers (26)
- Sacramento Kings (27)
- San Antonio Spurs (28)
- Toronto Raptors (29)
- Utah Jazz (30)
- Washington Wizards (19)
Answer If For professional teams that you follow on Twitter, to which league do they belong? (check all that apply) NFL Is Selected

Q57 Because you indicated that you follow teams in the NFL on Twitter, please tell us which teams those are. (check all that apply)

- Official NFL account (1)
- Arizona Cardinals (32)
- Atlanta Falcons (2)
- Baltimore Ravens (3)
- Buffalo Bills (4)
- Carolina Panthers (5)
- Chicago Bears (6)
- Dallas Cowboys (7)
- Denver Broncos (8)
- Detroit Lions (9)
- Green Bay Packers (10)
- Houston Texans (11)
- Indianapolis Colts (12)
- Jacksonville Jaguars (13)
- Kansas City Chiefs (14)
- Miami Dolphins (15)
- Minnesota Vikings (16)
- New England Patriots (17)
- New Orleans Saints (18)
- New York Giants (19)
- New York Jets (20)
- Oakland Raiders (21)
- Philadelphia Eagles (22)
- Pittsburgh Steelers (23)
- San Diego Chargers (24)
- San Francisco 49ers (25)
- Seattle Seahawks (26)
- St. Louis Rams (27)
- Tampa Bay Buccaneers (28)
- Tennessee Titans (29)
- Washington Redskins (30)
Q58 Because you indicated that you follow teams in the NHL on Twitter, please tell us which teams those are. (check all that apply)

- Official NHL account (1)
- Anaheim Ducks (31)
- Arizona Coyotes (2)
- Boston Bruins (3)
- Buffalo Sabres (4)
- Calgary Flames (5)
- Carolina Hurricanes (6)
- Chicago Blackhawks (7)
- Colorado Avalanche (8)
- Columbus Blue Jackets (9)
- Dallas Stars (10)
- Detroit Red Wings (11)
- Edmonton Oilers (12)
- Florida Panthers (13)
- Los Angeles Kings (14)
- Minnesota Wild (15)
- Montreal Canadiens (16)
- Nashville Predators (17)
- New Jersey Devils (18)
- New York Islanders (19)
- New York Rangers (20)
- Ottawa Senators (21)
- Philadelphia Flyers (22)
- Pittsburgh Penguins (23)
- San Jose Sharks (24)
- St. Louis Blues (25)
- Tampa Bay Lightning (26)
- Toronto Maple Leafs (27)
- Vancouver Canucks (28)
- Washington Capitals (29)
- Winnipeg Jets (30)

Q59 Because you indicated that you follow teams in other professional sports leagues on Twitter, please tell us which teams those are.

Q15 Next, we'd like to ask you some questions about Corporate Social Responsibility (CSR). The main idea behind CSR is that organizations have an obligation to work for social
betterment. Another definition states that CSR is an organization’s responsibility to be ethical and accountable to both their stakeholders and needs of society. The following statements ask about your familiarity with the concept of Corporate Social Responsibility (CSR):

<table>
<thead>
<tr>
<th>I am familiar with CSR. (1)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I am familiar with CSR in professional sports. (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I know of CSR initiatives conducted by professional sports teams. (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think professional sports teams should engage in CSR activity. (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think professional sports teams should focus on more than athletic competition and strive to have a positive impact on their communities. (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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have the ability to make a positive impact on their communities. (6)

Q21 The next sections of the questionnaire will ask you to read tweets and respond to a series of questions. Which of the following tweets is about roster updates?
- Image:Csr tweet 1 (1)
- Image:Game info tweet 1 (2)
- Image:Promo tweet 1 (3)
- Image:Roster tweet 1 (4)

Q22 Which of the following tweets is about promotions?
- Image:Csr tweet 2 (1)
- Image:Game info tweet 2 (2)
- Image:Promo tweet 2 (3)
- Image:Roster tweet 2 (4)

Q23 Which of the following tweets is about CSR?
- Image:Csr tweet 3 (1)
- Image:Game info tweet 3 (2)
- Image:Promo tweet 3 (3)
- Image:Roster tweet 3 (4)

Q24 Which of the following tweets is about game information?
- Image:Csr tweet 4 (1)
- Image:Game info tweet 4 (2)
- Image:Promo tweet 4 (3)
- Image:Roster tweet 4 (4)

Q22 For the next section of the questionnaire, please read through the following screen capture of a Twitter feed. To see a larger version of the feed, please click on the image.
- Image:White sox profile no prime (1)
Q17 Please write down everything you learned from reading the previous tweets. Be specific and reference individual tweets if possible.

Q16 From the tweets you read, which would you consider to be CSR messages? Be specific and reference individual tweets if possible.

Q18 Of the following tweets you saw on the previous Twitter feed, which would you consider to be CSR messages?
- Image:Csr tweet primed (1)
- Image:Game info tweet (2)
- Image:Promo tweet (3)
- Image:Roster tweet (4)

Q39 For the next section of the questionnaire, please read through the following screen capture of a Twitter feed. To see a larger version of the feed, please click on the image.
- Image:White sox profile prime (2)

Q41 Please write down everything you learned from reading the previous tweets. Be specific and reference individual tweets if possible.

Q43 From the tweets you read, which would you consider to be CSR messages? Be specific and reference individual tweets if possible.

Q45 Of the following tweets you saw on the previous Twitter feed, which would you consider to be CSR messages?
- Image:Csr tweet primed (1)
- Image:Game info tweet (2)
- Image:Promo tweet (3)
- Image:Roster tweet (4)

Q24 Please read through the following screen capture of a Twitter feed. To see a larger version of the feed, please click on the image.
- Image:Giants profile ms after game big (2)

Q25 Please write down everything you learned from reading the previous tweets. Be specific and reference individual tweets if possible.

Q26 From the tweets you read, which would you consider to be CSR messages? Be specific and reference individual tweets if possible.

Q27 Of the following tweets you saw on the previous Twitter feed, which would you consider to be CSR messages?
Q47 Please read through the following screen capture of a Twitter feed. To see a larger version of the feed, please click on the image.

Q49 Please write down everything you learned from reading the previous tweets. Be specific and reference individual tweets if possible.

Q51 From the tweets you read, which would you consider to be CSR messages? Be specific and reference individual tweets if possible.

Q53 Of the following tweets you saw on the previous Twitter feed, which would you consider to be CSR messages?

Q55 Please read through the following screen capture of a Twitter feed. To see a larger version of the feed, please click on the image.

Q57 Please write down everything you learned from reading the previous tweets. Be specific and reference individual tweets if possible.

Q59 From the tweets you read, which would you consider to be CSR messages? Be specific and reference individual tweets if possible.

Q61 Of the following tweets you saw on the previous Twitter feed, which would you consider to be CSR messages?

Q63 Please read through the following screen capture of a Twitter feed. To see a larger version of the feed, please click on the image.

Q65 Please write down everything you learned from reading the previous tweets. Be specific and reference individual tweets if possible.
Q67 From the tweets you read, which would you consider to be CSR messages? Be specific and reference individual tweets if possible.

Q69 Of the following tweets you saw on the previous Twitter feed, which would you consider to be CSR messages?

- Image:Csr tweet (1)
- Image:Game info tweet (2)
- Image:Promo tweet (3)
- Image:Roster tweet (4)

Q19 Which of the following CSR tweets do you resonate with the most?

- Image:Csr tweet 1 (1)
- Image:Csr tweet 2 (2)
- Image:Csr tweet 3 (3)
- Image:Csr tweet 4 (4)
- Image:Csr tweet (5)
- Image:Csr tweet primed (6)
Q29 Please respond to the following statements about Corporate Social Responsibility (CSR).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree (1)</th>
<th>Disagree (2)</th>
<th>Neither Agree nor Disagree (3)</th>
<th>Agree (4)</th>
<th>Strongly Agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think professional sports teams should engage in CSR activity.</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>I think professional sports teams should focus on more than athletic competition and strive to have a positive impact on their communities.</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>I think professional sport teams have the ability to make a positive impact on their communities.</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>
Q11 What gender do you identify with?
- Male (1)
- Female (2)
- Other (3)
- Prefer not to answer (4)

Q13 What is your age?

Q15 What year are you in college?
- Freshman (1)
- Sophomore (2)
- Junior (3)
- Senior (4)

Q17 Which of the following best represents your ethnic group?
- Caucasian (1)
- Black or African-American (2)
- Hispanic or Latino/Latina (3)
- Asian or Asian American (4)
- Native American or Alaskan American (5)
- Bi- or Multi-racial (6)
- Other (7)
- Prefer not to answer (8)

Q62 This survey was meant to gather information regarding the effectiveness of CSR messages disseminated by Major League Baseball teams via Twitter. What would you have liked to know while reading through the Twitter feeds or completing the questionnaire that would have better helped you respond to the questions?

Q63 Are you a fan of any of the MLB teams used in this questionnaire?
- Yes, the Cleveland Indians (1)
- Yes, the Chicago White Sox (2)
- Yes, the San Francisco Giants (3)
- No (4)
Tweets for CSR Recognition (CSR):

**Cleveland Indians @Indians · Sep 14**
@SliderTheMascot and @TheJK_Kid visited children at the Cleveland Clinic Children's hospital this morning.

#TribeTown

**Cleveland Indians @Indians · Sep 14**
Members of our front office are out at the Cleveland food bank until 2pm today. Stop by to say hi and make a donation!

#TribeTown

**Cleveland Indians @Indians · Sep 14**
Join us as we #StandUpToCancer - Bid now on game-used items. All proceeds go towards cancer research.

auctions.mlb.com

**Cleveland Indians @Indians · Sep 14**
Be on the lookout for our new recycling containers at Progressive Field. Help the Indians go green!

#TribeTown
Tweets for CSR Recognition (Game Info):

**Cleveland Indians @Indians • Sep 14**
First pitch for tonight’s game against the Reds is scheduled for 7:05pm. Follow along at indians.com.

#GoTribe

**Cleveland Indians @Indians • Sep 14**
Tonight’s game against the Twins is currently in a rain delay. Stay tuned for updates.

#WINdiants

**Cleveland Indians @Indians • Sep 14**
We head to the plate in the bottom of the 8th with the score tied at 2.

#WINdiants

**Cleveland Indians @Indians • Sep 14**
To accommodate ESPN’s national broadcast, first pitch for our game against the Royals on 9/27 has been moved to 8:05pm ET.

#WINdiants
Tweets for CSR Recognition (Promotions):

<table>
<thead>
<tr>
<th>Username</th>
<th>Tweet</th>
<th>Hashtags</th>
<th>Likes</th>
<th>Retweets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleveland Indians</td>
<td>Be sure to get your tickets for tomorrow’s game against the Orioles! The first 20,000 fans receive a Michael Brantley bobblehead.</td>
<td>#TribeTown</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cleveland Indians</td>
<td>Remember students can purchase $10 upper deck tickets for tonight’s matchup against the Twins!</td>
<td>#TribeStudentNights</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cleveland Indians</td>
<td>The first 20,000 fans at tonight’s game against the White Sox will receive a #WINdians rally towel!</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cleveland Indians</td>
<td>Take advantage of our awesome family ticket deal for Sunday’s game against the Angels - 4 tickets, 4 hot dogs, and 4 sodas for $60!</td>
<td>#TribeTown</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Tweets for CSR Recognition (Roster Updates):

Cleveland Indians @Indians · Sep 14
LHP TJ House (shoulder inflammation) has been sent to the Scottsdale Scorpions for a rehab assignment.

Cleveland Indians @Indians · Sep 14
We’ve acquired 3B Chris Johnson from the @Braves in exchange for CF Michael Bourn, LF Nick Swisher, and cash considerations.

Cleveland Indians @Indians · Sep 14
RP Cody Allen has been placed on the 15-day disabled list (lower back).

Cleveland Indians @Indians · Sep 14
We’ve recalled OF Zach Walters from the Columbus Clippers for this afternoon’s game.
Twitter Feeds to Test for Effects of Priming:
Chicago White Sox

Official Twitter of the Chicago White Sox

U.S. Cellular Field
whitesox.com
Joined July 2009

Tweet to Chicago White Sox

$2.99 Photos and videos

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Twitter Feeds to Test for Effects of Message Sequencing:
San Francisco Giants

3-Time World Champions: SFGiants
Official Hashtag: # SF Giants # WeAreSF
@SFGiants | Instagram @SFGiants | Facebook

AT&T Park, San Francisco, CA
sfplains.com/Connect
24 4th Yerba Buena

Tweet to San Francisco Gia...

San Francisco Giants @SFGiants - Sep. 1
Students can purchase $16 outfield tickets for tonight's game against the Diamondbacks.

#WeAreSF

San Francisco Giants @SFGiants - Sep. 1
 Buster Posey steps in with the bases loaded in the bottom of the 9th as the Giants look for a walk off!

#WeAreSF

San Francisco Giants @SFGiants - Sep. 1
Join us in encouraging all Junior Giants to eat right and exercise regularly, just like the pros!

#WeAreSF

San Francisco Giants @SFGiants - Sep. 1
 The Giants have acquired LF Alejandro De Aza from the Boston Red Sox in exchange for LHP Luis Ysla.

#SFGiants
San Francisco Giants

- 3-Time World Champion: @SFGiants
- Official Hashtag: #SFGiants / #WeAreSF
- Twitter: @SFGiants
- Instagram: @SFGiants
- Snapchat: @SFGiantsMLB
- AT&T Park, San Francisco, CA
- sfgiants.com/Connect
- 24-MYVie Tweets
- Joined May 2009

1K Photos and Videos

San Francisco Giants @SFGiants - Sep. 1
Students can purchase $15 outfield tickets for tonight's game against the Diamondbacks.

#WeAreSF

San Francisco Giants @SFGiants - Sep. 1
Buster Posey steps in with the bases loaded in the bottom of the 8th as the Giants look for a walk-off!

#WeAreSF

San Francisco Giants @SFGiants - Sep. 1
The Giants have acquired LF Alejandro De Aza from the Boston Red Sox in exchange for LHP Luis Ysla.

#SFGiants

San Francisco Giants @SFGiants - Sep. 1
Join us in encouraging all Junior Giants to eat right and exercise regularly, just like the pros!

#WeAreSF
San Francisco Giants

San Francisco Giants SFGiants
3-Time World Champion SFGiants
Official Hashtag #SFGiants #WeAreSF
Instagram @SFGiants
Snapchat SFGiantsMLB

AT&T Park, San Francisco, CA
sfgiants.com/Connect
24/7 Fans Loops

Joined May 2009

Tweet to San Francisco Giants

11K Photos and videos

San Francisco Giants @SFGiants • Sep 1
Join us in encouraging all Junior Giants to eat right and exercise regularly, just like the pros!
#WeAreSF

San Francisco Giants @SFGiants • Sep 1
Students can purchase $15 outfield tickets for tonight’s game against the Diamondbacks.
#WeAreSF

San Francisco Giants @SFGiants • Sep 1
Buster Posey steps in with the bases loaded in the bottom of the 9th as the Giants look for a walk off!
#WeAreGiants

San Francisco Giants @SFGiants • Sep 1
The Giants have acquired LF Alejandro De Aza from the Boston Red Sox in exchange for LHP Luis Ysla.
#SFGiants
APPENDIX C: THEMATIC ANALYSIS CODEBOOK

Coding for Free Recall Questions: Absence or Presence – put a 0 if desired component is not present, put a 1 if desire component is present; NOT mutually exclusive

1. Please write down everything you learned from reading the previous tweets. Be specific and reference individual tweets if possible.

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>White Sox Example (Priming Experiment)</th>
<th>Giants Example (Message Sequencing Experiment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Name</td>
<td>Information identifying the team who maintains the Twitter feed (mentions team name or city) – Chicago White Sox or San Francisco Giants</td>
<td>“Chicago white socks page, definitely a baseball team with a fairly active twitter page”</td>
<td>“San Francisco giants baseball team;…”</td>
</tr>
<tr>
<td>Game Information</td>
<td>Information from before the game such as game time, location, or media coverage. Information from during the game including score updates, statistics, or play-by-play reports and analysis. Information from after the game such as final score and statistics.</td>
<td>“The Chicago White Sox post tweets about game information such as the postponing of a game due to rain, which was rescheduled for a split admission double header…”</td>
<td>“Buster Posey up in the bottom of the 9th, looking for a walk off…”</td>
</tr>
<tr>
<td>Roster Updates</td>
<td>Information related to player transactions, including movement to or from the disabled list (DL), trades, new contract signings, or players being cut/released.</td>
<td>“Jose Abreu was activated from the 15-day disabled list…”</td>
<td>“…The Giants have acquired a new left fielder…”</td>
</tr>
<tr>
<td>Promotions</td>
<td>Information related to deals meant to entice fans to attend the game including ticket promotions and item giveaways.</td>
<td>“…The first 20,000 fans will be receiving a White Sox Hat at the game on Sunday…”</td>
<td>“The San Francisco Giants post tweets about promotions such as student discounts for tickets…”</td>
</tr>
<tr>
<td>CSR</td>
<td>Information related to a team’s corporate social</td>
<td>“…The white sox are partnering with a”</td>
<td>“I learned that the San Francisco Giants are”</td>
</tr>
</tbody>
</table>
responsibility (CSR) initiatives including charitable acts, environmental awareness, health initiatives, donations, and youth initiatives.

Don’t Remember

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>White Sox Example (Priming Experiment)</th>
<th>Giants Example (Message Sequencing Experiment)</th>
</tr>
</thead>
</table>
| Specific CSR Initiative from Twitter Feed | Information regarding the specific CSR initiative highlighted in a certain Twitter feed  
White Sox – partnering with @ChicagoYouthBaseball to provide jerseys and gear | “The tweet about sponsoring the Chicago youth baseball team to whom they will provide jerseys.” | “Encouraging the Junior Giants to eat right and exercise” |
<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other CSR Initiatives from Previous Sections of Questionnaire</td>
<td>Information referencing CSR initiatives that were discussed in previous sections of the questionnaire but are not from the specific Twitter feeds in question for the two experiments. These include StandUpToCancer, visiting a children’s hospital, volunteering at a food bank, and recycling programs.</td>
<td>“CSR messages would be those that dealt with helping the local Children's Hospital.” “Cancer” “The one about youth baseball” “The second tweet that talked about donating to a children's charity.”</td>
</tr>
<tr>
<td>Definitional CSR</td>
<td>Information that defines CSR or describes its purpose but does not mention specific CSR initiatives.</td>
<td>“The tweets which reference any kind of community betterment, like support of organizations/philanthropies” “one about helping others”</td>
</tr>
<tr>
<td>Other Categories of Tweets</td>
<td>Information related to game information, roster updates, or promotions, the other categories used to draft tweets throughout the questionnaire.</td>
<td>“Maybe the free hats?” “The one about a game update” “The one's referring to the game play issues” “students $15 tickets”</td>
</tr>
<tr>
<td>Don’t Remember</td>
<td>When a participant indicates that they do not remember information from the tweets they read.</td>
<td>“i dont remember” “cannot remember” “I don’t remember”</td>
</tr>
<tr>
<td>Don’t Know</td>
<td>When a participant indicates that they do not know which of the tweets was about CSR or what CSR initiatives are</td>
<td>“I don’t know” “No idea” “Unsure” “idk”</td>
</tr>
<tr>
<td>Number of Tweet</td>
<td>Information that mentioned the number of a tweet seen, but does not contain any further information.</td>
<td>“3rd one” “The last tweet about team” “the last one” “the fourth one”</td>
</tr>
<tr>
<td>None</td>
<td>Information that states the</td>
<td>“I don't remember a” “None of them, they”</td>
</tr>
<tr>
<td>Participant</td>
<td>Tweet Being Considered a CSR Message</td>
<td>Were All Pertaining to Their Team</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Blank</td>
<td>If a participant did not complete the question and left the word box blank.</td>
<td>“None” or “N/A”</td>
</tr>
<tr>
<td>Participant did not believe any of the tweets were about CSR.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX D: IRB APPROVAL LETTER

Office of Research Compliance
Institutional Review Board
North End Center, Suite 4120, Virginia Tech
300 Turner Street NW
Blacksburg, Virginia 24061
540/231-4606 Fax 540/231-0959
email irb@vt.edu
website http://www.irb.vt.edu

MEMORANDUM

DATE: January 4, 2016

TO: Brandi A Watkins, Betsy Roberts Haugh

FROM: Virginia Tech Institutional Review Board (FWA00000572, expires July 29, 2020)

PROTOCOL TITLE: Sports Fans and Social Media Messages

IRB NUMBER: 15-1107

Effective January 4, 2016, the Virginia Tech Institution Review Board (IRB) Chair, David M Moore, approved the New Application request for the above-mentioned research protocol.

This approval provides permission to begin the human subject activities outlined in the IRB-approved protocol and supporting documents.

Plans to deviate from the approved protocol and/or supporting documents must be submitted to the IRB as an amendment request and approved by the IRB prior to the implementation of any changes, regardless of how minor, except where necessary to eliminate apparent immediate hazards to the subjects. Report within 5 business days to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

http://www.irb.vt.edu/pages/responsibilities.htm

(Please review responsibilities before the commencement of your research.)

PROTOCOL INFORMATION:

Approved As: Exempt, under 45 CFR 46.110 category(ies) 2
Protocol Approval Date: January 4, 2016
Protocol Expiration Date: N/A
Continuing Review Due Date*: N/A

*Date a Continuing Review application is due to the IRB office if human subject activities covered under this protocol, including data analysis, are to continue beyond the Protocol Expiration Date.

FEDERALLY FUNDED RESEARCH REQUIREMENTS:

Per federal regulations, 45 CFR 46.103(f), the IRB is required to compare all federally funded grant proposals/work statements to the IRB protocol(s) which cover the human research activities included in the proposal / work statement before funds are released. Note that this requirement does not apply to Exempt and Interim IRB protocols, or grants for which VT is not the primary awardee.

The table on the following page indicates whether grant proposals are related to this IRB protocol, and which of the listed proposals, if any, have been compared to this IRB protocol, if required.