

THE EFFECT OF JUMBOTRON ADVERTISING ON THE EXPERIENCE OF
ATTENDING MAJOR LEAGUE BASEBALL GAMES

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	ii
ABSTRACT	iv
Chapter	
1. INTRODUCTION	1
2. LITERATURE REVIEW	6
The Stadium Effect.....	6
Interpersonal Interaction.....	9
Advertising in General.....	11
Rotating Signs.....	14
Jumbotrons.....	15
Synthesis	17
Research Question	18
3. METHODOLOGY	19
Observation.....	21
Interviews	22
Interview Guide	24
Data Analysis.....	25
4. FINDINGS.....	27
Observation.....	27
Interviews	41
5. DISCUSSION.....	46
REFERENCES	53

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ABSTRACT

This study explores the dynamics of jumbotron advertising at Major League Baseball games and the effect it has on fans at those games. In order to execute the study, the researcher traveled to 12 different Major League Baseball stadiums. Two methods were employed in the pursuit of this study: ethnographic interviews and participant-observer observation. For the most part, the two methods revealed similar data. Although the breadth of the study was not large enough to make sweeping conclusions, the data indicate that jumbotron advertising, outside of a few features that appear, does not have a dramatic effect on the experience of attending games. For example, it does not increase attendance at Major League Baseball games. However, when certain, less frequent advertisements features are displayed, they have the effect of making fans more educated about the game through replays and statistics and more apt to cheer. Additionally, the researcher observed that jumbotron advertisements appear almost exclusively between innings, when play is not taking place.

Introduction

This Week's Debate: Over the years, NHL teams have attempted to improve the arena experience by adding various forms of marketing and/or entertainment during breaks in play. But has the trend gone too far?

In Favor: You know, I really think maybe it has. I can appreciate the need for some occasional music or sponsored messages, but all the constant noise and interruptions at a modern-day NHL game is really starting to seem over-the-top.

Opposed: Maybe for you, but remember that the younger generation doesn't mind all this. It's actually what they expect when they attend a major sporting event. They've grown up with it.

In Favor: I guess that's true. I just remember when a break in play meant you could actually turn to the person next to you and have a conversation about the game you were watching.

Opposed: That was a different time. And not everything was better in the old days.
[*A whistle blows in the background.*]

In Favor: I guess I'm just old-fashioned. I still prefer having the occasional moment where I could ...

Arena Hostess: DID SOMEBODY SAY TRIVIA TIME???

In Favor: What the ...

Arena Hostess: WHO WANTS TO WIN A PRIZE???

In Favor: You have a microphone. Why are you yelling at us?

Arena Hostess: I CAN'T HEAR YOU!!!

Opposed: Hey, is there any chance you could give us a second to ...

Arena P.A. Announcer: Ladies and gentlemen, we interrupt this screeching trivia to bring you the Joe's Moving Van Rentals Super-Duper Big Move of the game!

In Favor: The what?

Arena P.A. Announcer: Everyone in Section 312, switch places with everyone in Section 228. Go!

Opposed: That doesn't even make sense.

Arena P.A. Announcer: DO IT!

In Favor: I'm sorry, but we were kind of in the middle of something.

Opposed: Maybe if we talk really fast we can finish this before they ...

Arena Music Guy: [*Begins blaring "Cotton-Eyed Joe" at 193 decibels*]

In Favor: I think my ears are bleeding.

Opposed: I've become confused and disoriented.

Arena Hostess: OH, LOOK, YOU'RE ON THE KISS-CAM!

In Favor: No!

Arena Hostess: YOU HAVE TO KISS!

Opposed: Why are you doing this to us?

Arena Hostess: [*Whispering urgently*] They've kidnapped my whole family. They told me if I stop yelling for even one second, I'll never see them again. Please help me.

Opposed: Wait, what?

Arena Hostess [*Frantically banging Opposed's and In Favor's heads together*]: KISS EACH OTHER!

In Favor: I think I'm just going to curl up here and not move for a while.

Opposed: No! Listen to me! We can make it out of here!

In Favor: Go on without me ...

Opposed: No! I will not leave you behind! Crawl toward the light!

[*Opposed and In Favor commando crawl down the aisle toward an exit.*]

In Favor: I ... I think we're going to make it ...

Mascot: [*Rappels from rooftop, begins firing into the crowd with his T-shirt bazooka*]

Opposed: I'm hit!

In Favor: NOOO! What have you done, you monsters! [*Breaks down sobbing*]

[*Whistle blows. Everything immediately goes silent.*]

In Favor: What ... what happened?

Opposed: I think the game is back on.

In Favor: Oh.

[*Opposed and In Favor stand up, dust themselves off, and return to their seats.*]

Opposed: So what were we talking about?

In Favor: I don't remember.

Although the above from McIndoe (2013) is an exaggeration, its central message is a growing frustration that rarely receives publicity. The rumbling is the commercialization of arenas and stadiums throughout North America is a distraction to sports fans. There is little doubt that as the business of sports has grown, so too have in-stadium advertisements in scale and quantity. This trend seems to exist in the four major sports leagues (the National Hockey League, the National Basketball Association, the National Football League, and Major League Baseball (MLB)). The American national

pastime of baseball, however, represents the clearest means of study because more baseball games are played than the other sports.

Wrigley Field, the second-oldest stadium in Major League Baseball and home of the Chicago Cubs, is the last baseball venue without a massive video screen, called a “jumbotron,” and therefore has less of a capacity to advertise (ESPN). However, this last bastion is now at risk of increased commercialization. Further, while the stadium’s name was originally an advertisement for Wrigley chewing gum, the company no longer pays for naming rights. To put this into context, 19 of the other 29 Major League Baseball stadiums share names, and are directly identifiable, with major corporations.

The jumbotron-free oasis offered by Wrigley Field is going to change. In April 2013, the Cubs’ ownership group submitted proposals to the league and to the city of Chicago that sought to erect a 6,000 square-foot video board in left field of the stadium in addition to four new signs around the outfield. Tom Ricketts, principal owner of the team, noted the potential for tens of millions of dollars in additional annual revenue estimates that will be directly attributable to advertisements shown on the jumbotron (“Tom Ricketts Threatens,” 2013). In July 2013, the Cubs and the city of Chicago came to an agreement for the jumbotron to be constructed (“Cubs, Chicago agree,” 2013). More than just money is at stake with the installation of that jumbotron: the effect its ads could have on the baseball-centric atmosphere during baseball games at Wrigley Field.

Baseball’s history in the United States traces to before the Civil War. Virtually since its inception, the game of baseball has been romanticized and even seen as a microcosm of the trials and tribulations the U.S. has faced in the past century and a half. Games have moved from the sandlots and open fields of 19th century America to the

50,000 seat cathedrals they now occupy. That movement, naturally, has effected changes in the way the game is played and witnessed.

One of those ways is that stadiums have brought the ability to advertise. These days, fans cannot attend an MLB game without being exposed to a stream of ads in the hallways, in the bathrooms, and most prominently, on the massive jumbotrons that now populate MLB stadiums. The exact effect of the messages on those screens, however, remains unclear. For the purposes of this study, the term “advertising” will mean anything that appears on a video screen and includes the logo or symbol of a sponsor. This study will attempt to determine what effect, if any, the advent of jumbotron advertising has had on the experience of attending a baseball game. In this study, “jumbotron” is defined as any video screen that displays advertising before, during, and after MLB games.

This study will be of interest to baseball fans in particular, and sports fans in general. Few of them likely realize how frequently they are being sold products when they attend games, and even fewer understand how much the experience of attending professional baseball games has changed. On one hand is the argument that these advertisements represent abominable intrusions on the American pastime. On the other is the simple fact that a large, captive audience is an attractive target for advertisers, and home teams profit handsomely.

The changing atmosphere at baseball games has not exactly gone unnoticed, but it is not headline news, either. Scholarship has danced around the issue, but not quite addressed it. Studies exist that determine the effectiveness of advertisements at baseball stadiums and literature exists that breaks down the fan experience at ballgames. Both are

useful for the purposes of this study. Before the link between the two can be determined, however, those studies and relevant literature must be gathered and analyzed. This literature review aims to do precisely that.

First, the effect of the stadium itself on baseball games must be examined. For example, does the physical structure do anything to enhance enjoyment of a game? Or is the stadium irrelevant to the average fan? Next, the research will cover what fans seek in attending games, and will break down the current state of the fan experience. Then, the effect of advertising in general must be examined in order to determine: if it is effective at all, and if so, what quantifiable changes in behavior it elicits. It is altogether possible the ads at baseball games have not changed how fans perceive the experience of attending games. Finally, literature will be presented that covers both past and present advertising at baseball games.

Literature Review

The Stadium Effect

Some of the debate among experts in the field stems from the stadiums themselves and what effect their design has on stadium atmosphere. Fourteen of 30 MLB stadiums have been built since 2000 so virtually by default, the dynamics of attending a game have changed. Wilkinson and Pollard (2006) found in the first year of a team playing in a new stadium, its home field advantage dropped significantly, but they attributed that phenomenon to the home team's lack of familiarity with the stadium, and not a lower level of crowd involvement or crowd noise. Whelan and Sommers (2008) arrived at a similar conclusion, and noted even despite an increase in attendance, home field advantage in the first year at a new stadium dropped. They, however, went a step further to conclude home field advantage returns to its typical levels in the second year at a new stadium. This research contradicts the intuition of many baseball fans whose argument follows this line of logic: newer stadium equals less crowd noise equals a lesser home field advantage.

The work of Ahlfeldt and Maennig (2010) considers the funding of these new stadiums. Essentially, they find new sports facilities are not responsible for upticks in income or employment in the cities that construct them. The typical argument from club

owners who wish to build new stadiums asserts that they will be economic boons for their cities. Instead, as Eckstein and Delaney (2002) contend, most of the revenue generated by new stadiums does not go back to the city. In particular, the increase in advertising revenue provided by new stadiums' enhanced advertising platforms (e.g. jumbotron and luxury suites) goes straight into the pockets of the owners. Therefore, although it is disputed if new stadiums themselves are beneficial to a city, certain aspects of them are clearly not.

Another widely analyzed aspect of new baseball stadiums is naming rights. Corporations have begun purchasing the rights at almost every opportunity, and that advertising has proven to be effective. In Sandomir (2004), company representatives acknowledged how drastically recognition of their brands improved after naming a stadium after their products or organizations. In years past, stadiums were often named after their teams or team owners, or at the very least had a name that elicited some sense of civic attachment. Sportsman's Park in St. Louis, Crosley Field in Cincinnati, and Tiger Stadium in Detroit are examples. They were named for a common term for a baseball player, the team owner, and the team, respectively. The ballparks in those three cities now feature the name of a brewer (Busch Stadium in St. Louis), an insurance company (Great American Ballpark in Cincinnati), and a bank (Comerica Park in Detroit). Seifried (2010) posits the possibility the current corporate names of ballparks put fans at a distance, although he stops short of calling them a "turn-off," because after all, the fans do still come.

Nevertheless, it seems difficult to call home a place with a cold, corporate name. Westerbeek and Shilbury (1999) maintain fans at certain sports venues feel like they have

come home. Similarly, they found sports stadiums can be religious places as well because they offer symbolic meaning and afford the opportunity to engage in certain rituals, ceremonies, and songs, not unlike those at churches or synagogues.

In addition to the naming rights of stadiums, individual seating sections have begun to attract sponsors. For example, at Busch Stadium in St. Louis, “Big Mac Land” is a section of seats in left field where, if a home run lands, all fans with a ticket stub can order a free Big Mac the next day at McDonald’s. Hence, a home run turns into a Big Mac. The “Coca-Cola Corner” at Fenway Park in Boston and the “Pepsi Porch” at Citi Field in New York replicate the trend.

McCarthy (2009), however, spoke with the managing director of watchdog group Commercial Alert, who opined people should be able to be in a seat without becoming part of an ad. McCarthy (2009) also was told by the Kansas City Royals’ vice-president of sales and marketing that commercialism is acceptable, as long as it is balanced with aesthetics. Indeed, the advertising can become counterproductive, he said, and raised the pertinent question: “If all you are is a walking billboard, what does that do to the fan experience?” If nothing else, it demonstrates that among baseball insiders, there remains reluctance toward all-out advertising.

Aside from naming rights, the desire to increase advertising revenue by building new stadiums had an additional effect. Although baseball is primarily an outdoor game, vast improvements in technology since the “cookie-cutter” era have allowed retractable roofs to become prevalent in new stadium construction (Seifried & Pastore, 2009). These roofs allow the team total control over the physical atmosphere of a stadium; if it rains, the team can close the roof and the game can go on.

The roof is just one physical structure that has an effect on the fan experience at a stadium. Uhrich and Koenigstorfer (2009) discuss the emergence of the term “servicescape,” as coined by Wakefield and Blodgett (1994). This term focuses on spatial layout and functionality of stadiums, in addition to aesthetics. Wakefield and Blodgett (1994) study general aspects of the game-going experience such as the seats, hallways, food, and the score boards to determine the likelihood that fans will return to a certain stadium. However, Uhrich and Koenigstorfer (2009) argue that study ignores less tangible aspects of the fan experience at games. Certainly, those physical stimuli have an effect on the atmosphere at stadiums. But what both sets of researchers miss is the connection between *new* stadiums and these physical factors. Again, new stadiums have arisen in part from the potential for owners to make more money through advertising. So indirectly, according to Jacobson (2008) it is the advertising that shapes the physical stadium and contributes to factors like the width of the hallways.

Lee et al (2012) observed the idea of servicescape, closely related to “sensoryscape.” They studied which senses would most likely elicit the desire to return to a stadium and found social interaction was an important motivation for spectators to come back multiple times to a sporting venue. What they do not delve into, though, is whether advertisements cut down on social interaction in stadiums. Baseball at one time was a leisurely activity, and one of its main attractions was seemingly endless free time between pitches and innings for interpersonal communication.

Interpersonal Interaction

In Westerbeek and Shilbury (1999), analyzing Melnick (1993), sports stadiums facilitate conversation. They break down usual social inhibitions because fans can react

together to the action on the field. The game also provides a ready-made topic of conversation. These works make accurate points, but again, fail to acknowledge the possibility that advertisements and other interruptions are making conversation difficult (see the McIndoe spoof). Baseball was the ultimate social activity. No longer is there much quiet time.

Ritzer and Stillman (2001) associate the stadium experience of this seemingly long ago era as “magical” and “enchanting.” Baseball is a game especially prone to purism. Its history and tradition make nostalgia part of the allure. Above all, Ritzer and Stillman (2001) acknowledge the changing dynamics of baseball stadiums and assert they have become “McDonalized,” which is to say highly efficient, predictable, and non-human “selling machines.” While they also describe how modern ballparks attempt to simulate the stadiums of yesteryear, they note the tendency for stadiums to include attractions like shopping malls, food courts, and video arcades. According to the authors, these are tries to “re-enchant” the stadiums.

Whereas, according to Neilson (1995, p. 67), the enchantment once came from the “temporal rhythm of baseball...looping, elliptical, nominally linear but nonuniform, always expanding and contracting,” the draw to the ballpark is becoming a profit-driven, technological experience. “In the new ballparks,” write Ritzer and Stillman (2001, p. 111), “as much attention is accorded to facilitating consumption as to the game itself.” Once more, Wakefield and Blodgett (1994) offer the relevant connection: they outright recommend sports stadiums to be built in the future be designed to enhance entertainment.

When Miller and Gombeski Jr. (1994) attempted to study mere signage (not interactive advertising), it was found to be effective. Stationary advertising such as billboards has always been a part of baseball stadiums, so its impact is difficult to study. Their survey respondents, though, reported being aware of the signage and were able to recall the brands presented on the billboards. In light of that data, it is reasonable to conclude that baseball fans' attention has never been 100 percent on the game.

Neilson (1995) draws a correlation between billboards at ballparks and the changing demographics of ballgame attendees. The 1940s, he claims, brought about signs for more household products such as bottled sodas and packaged bread, instead of products targeted at working-class men such as whiskey and tobacco. In turn, the presence of women at ballparks rose, and attending a baseball game became a two-gender endeavor.

Male-specific advertising does still exist, though. Above urinals in modern ballparks, plaques of various company advertisements rest at eye level while. These ads are a more recent phenomenon, and their effectiveness has yet to be studied. They represent fertile ground for research. By far though, advertisements in motion are the most pervasive and impactful examples to study.

Advertising in General

Before discussing what kinds of ads appear at baseball games, it is important to take a step away from the ballpark to consider advertising in general, and whether it has an impact on human behavior. Advertising is a widely researched area in marketing that, over the years, has been defined in different ways (Richards & Curran, 2002). Consumers generally regard every form of promotional activity, from event sponsorship to

telemarketing, as a form of advertising (Schultz, 1995), while industry practitioners distinguish certain forms of promotional activity like newspaper classifieds, radio announcements, and television commercials as “traditional advertising.” They also regard other non-traditional forms of marketing communications like interactive multimedia both on the Internet and through mobile applications as “not advertising” (Rust & Richard, 1994, p. 76).

In an early textbook about the field, Starch (1923) developed a definition of advertising as simply “selling in print.” (p. 5). Advertising icon Leo Burnett defined advertising as “selling corn flakes to people who are eating Cheerios” (Bendinger, 1993, p. 60). Bovee and Arens (1992) developed a more refined definition of advertising that distinguished the field from other forms of speech. And after several interviews with a panel of 14 advertising experts, Richards and Curran (2002) developed the following definition of modern advertising based on the majority opinions of the panel:

“Advertising is a paid, mediated form of communication from an identifiable source, designed to persuade the receiver to take some action now or in the future.” (p. 74).

Advertisements across all platforms tend to consist of simple and straightforward messages (Briggs, 2001); target an identified set of buyers that share common needs or characteristics (Kotler, Armstrong, & Starr, 1991; Aaker, Brumbaugh & Grier, 2000); and trigger subconscious reactions through the use of peripheral cues such as color, animation, and music (Lohtia, Donthy, & Hershberger, 2003).

McDonald (1997) argued an integral element of effective advertising is intrusiveness. He noted the majority of traditional advertising appears during the breaks of television watching or as an intrusion into the reading flow of a printed publication.

This jarring effect, similar to what McIndoe (2013) observed in hockey arenas, contributed to drawing the attention of the consumer toward the platform through which the advertisement is being delivered.

Advertising, or paid announcements, can be mediated across a number of platforms, including print (e.g. newspapers, magazines, and journals), broadcast (e.g. radio and television), and electronic and other audiovisual media (e.g. mobile devices, the Internet, and jumbotrons in sporting stadiums) (American Heritage Dictionary, 2000 as cited in Richards & Curran, 2002).

Advertising has a clear effect on human experience. For example, Brajnik and Gabrielli (2010) studied online advertising's effect on user experience. They concluded advertisements "have the effect of slowing down information search, of increasing perceived workload, and of interfering with website content retention" (p. 987). Further, Boyland and Halford (2013) concluded advertisements can affect behavior. They found television ads have the ability to change children's eating habits.

Over the past few decades, as mass media has undergone considerable fragmentation, advertisers have sought "alternative methods for communicating with consumers" that attempt to capitalize on ad placements in certain environments that lend themselves better to effective targeting audiences (Turley & Shannon, 2000, p. 323). One such environment is a "captive setting." When defining captive settings, Turley and Shannon (2000) wrote:

a captive service setting is characterized by an extended stay in a service facility or place where consumers cannot normally leave before the service has been

performed, or they are reluctant to do so. In addition, when a person enters this setting they are often involuntarily exposed to advertising messages. (p. 323).

For advertisers, sports arenas represent the quintessential captive setting in which the audiences—the fans attending live sporting events—are primed for hours of corporate advertisement exposure throughout the course of a game. Advertisers hope the affinity fans have for their home team will transfer to the product being advertised as fans begin to associate to two entities with one another (Schlossberg, 1991). As such, in-stadium advertising has become an increasingly common form of advertising in sports.

Rotating Signs

Rotating signs, which feature multiple different brands throughout games, were studied and proven effective in basketball and tennis facilities by Pokrywczyski (1993). In his research, the majority of subjects were able to recall brands that were cycled on these rotating ads during an event. He also noted the signs were visible to television viewers. Moore et al (1999) took that work a step further. They surveyed 181 home team fans at college football games in the U.S. and found not only did respondents notice and remember the brands presented on the rotating signs, but they led to increased enjoyment of the game. Further, more than 60 percent of their subjects responded they were more likely to patronize sponsors they saw at the games.

Similarly, the work of Shannon and Turley (2000), who studied basketball attendees, supports their conclusion. Both used Bernstein (1998) as inspiration. He posited rotational-signage companies are striving to create signs as big as 300 feet. These

studies, however, only used a single stadium each. Further analysis should consider multiple stadiums.

In baseball stadiums specifically, these signs have become part of the actual playing field. Often, they form the base of the stands, so that ground balls that spin into foul territory bounce off them. While their effect on games themselves is not clear, they are inescapable, and therefore a part of the baseball experience. But they are beyond the purview of this study because of the ever-growing presence of their cousins, jumbotron advertisements, which seem to represent a greater intrusion into the feel of a baseball game.

Jumbotrons

Jumbotrons have come to play a major role in the presentation of modern MLB games. Seifried and Pastore (2009, p. 43) argued these video screens “helped spectators experience the event differently than fans from the previous era; they also further isolated the professional sport facility from the outside world because the facility was conceived to exist as an attraction on par with the event.” This change in focus from “event” to “experience” is at the heart of this study. Fost (1990, p. 22) cites the example of the Oakland Athletics. He quotes Andy Dolich, the vice president of their business operations: “We decided to adopt the Disney format of having people enjoy the experience of coming to baseball games,” he said. The team subsequently implemented a modern music system and a video screen.

Once Wrigley Field constructs its scoreboard and jumbotron, all 30 MLB stadiums will feature one. They have become an inescapable part of the modern baseball experience. True, they have a connection to the games: on these screens, teams can feature instant replays and baseball trivia questions. However, the trivia questions often prompt fans to take out their phones and tweet or text their guesses. In many stadiums, teams use jumbotrons to promote their own products, such as clothing at the team store. The presence of the “kiss-cam” is also becoming more popular on video screens, and it often comes with a sponsor. More and more, fans appear on the screens and are expected to become part of the show.

Wakefield and Blodgett (1994) found video replays and entertainment factored into a better perception of Cincinnati’s former ballpark, Riverfront Stadium. At Cleveland’s Municipal Stadium, the lack of video was a detriment to the overall perception of the stadium. However, their subjects were college students, who are typically more technologically inclined and some might even say have shorter attention spans. To properly analyze whether fans truly enjoy the constant barrage of video entertainment, a wider sample of the population should be surveyed.

Perception of these jumbotrons varies. Nonetheless, Moore et al (1999) framed jumbotrons as attention grabbing, and noted they have become integral aspects of the sports servicescape. Naturally, they add, “Corporate sponsors are lining up to have advertisements shown to captive audiences” (p. 454). Their research returned fascinating data, even though self-reported survey data has limitations of bias, forgetfulness, and

malleability. For example, 87.3 percent of respondents said the jumbotron increased their enjoyment of the game. Further, 31 percent (a substantial number, according to the researchers) reported the jumbotron increased their desire to attend more games. Finally, 67.4 percent said they watched almost every replay shown on the jumbotron. If nothing else, it is clear that much fan attention at sporting events is on the screen.

Although the Moore et al (1999) study is foundational, unfortunately, it did not test advertisements on the jumbotrons because none were shown during their study. They do conclude, though, the audience is almost certain to be exposed to ads before, during, and after games. This gap in research represents a clear opportunity.

The quintessential jumbotron appeared in Dallas, when the Cowboys built their new football stadium. Kruse (2011) found Cowboys owner Jerry Jones had set out to make the seven-story tall, 18-story wide screen the “centerpiece” of the fan experience. One observation in particular, from a fan in Kruse’s (2011) report was that the fan found his eye instinctively moving to the sharp projections of light and color instead of the action on the field. He said he had to consciously resist the “mesmerizing mirage” of the video screen.

Synthesis

The evidence is clear that sports venues, and especially baseball, are becoming more commercialized. Above all, the presence of jumbotron advertising is on the rise. The need for lucrative advertising platforms has been a motivation for the building of new stadiums throughout MLB, in addition to renovating existing ones. Because advertising has shown to have an effect on human behavior, it would appear as though this dynamic of new stadiums and more advertising has some effect on the atmosphere in

baseball stadiums and the overall fan experience. Despite the research that has been conducted on what factors influence game atmosphere, however, a conclusive study on the impact of jumbotron advertising has not been attempted.

Research Question

Therefore, the question “How does jumbotron advertising, if at all, affect the experience of attending Major League Baseball games?” will drive this study.

METHODOLOGY

The only place this question could be answered was in Major League Baseball stadiums, and the only people qualified to answer it were people who attend MLB games. Therefore, this study was conducted in 12 different MLB stadiums during the summer of 2014. The dates, locations, and circumstances of the games are as follows:

- Tuesday, May 20. Busch Stadium, St. Louis MO. St. Louis Cardinals vs. Arizona Diamondbacks.
- Friday, May 23. Great American Ballpark, Cincinnati, OH. Cincinnati Reds vs. St. Louis Cardinals.
- Sunday, May 25. Turner Field, Atlanta, GA. Atlanta Braves vs. Colorado Rockies.
- Monday, June 23. Kauffman Stadium, Kansas City, MO. Kansas City Royals vs. Los Angeles Dodgers.
- Sunday, June 29. Citizens Bank Park, Philadelphia, PA. Philadelphia Phillies vs. Atlanta Braves.
- Wednesday, July 2. Oriole Park at Camden Yards, Baltimore, MD. Baltimore Orioles vs. Texas Rangers.

- Friday, July 4. Nationals Park, Washington, D.C. Washington Nationals vs. Chicago Cubs.
- Sunday, July 6. PNC Park, Pittsburgh, PA. Pittsburgh Pirates vs. Philadelphia Phillies.
- Friday, July 18. Target Field, Minneapolis, MN. Minnesota Twins vs. Tampa Bay Rays.
- Monday, July 21. Miller Park, Milwaukee, WI. Milwaukee Brewers vs. Cincinnati Reds.
- Wednesday, July 23. U.S. Cellular Field, Chicago, IL. Chicago White Sox vs. Kansas City Royals.
- Wednesday, July 23. Wrigley Field, Chicago, IL. Chicago Cubs vs. San Diego Padres.

The researcher drove to the 12 stadiums and paid for gas and tickets without financial assistance from the University of Missouri.

To observe merely a few stadiums, though more convenient, would have been insufficient because it would not have achieved an adequate cross section of Major League Baseball. Jumbotron presentations had to be witnessed from, and fans had to be interviewed in as many different stadiums as possible because fans and presentation could have varied from city to city. At hand was a question whose answer could differ along gender lines; along age lines; along racial or ethnic lines; among hardcore baseball fans and more casually interested game-goers; among cities with older ballparks and cities with newer ones; among cities whose teams have been in place for centuries and cities with newer teams; among stadiums that house winning teams and stadiums that

host losing teams; among regions of the country; and so on. Not every category in which answers might have differed was reasonably observable under the parameters of this study. This study made the assumption that, by and large, game presentation and survey respondents at day games were similar to those at night games and that weekday games would comprise similar ratios of fans and similar jumbotron features as weekend games. Therefore, no effort was made to attend an equal number of day games and night games, for example.

Further, answering this question necessitated research methods that lent the opportunity for a thorough overview of jumbotron advertising. It also required soliciting opinions from baseball fans themselves, ideally allowing them to be thoughtful of their responses and to expand upon ideas and feelings with no constraints on time or expression. The qualitative methods of observation and interview allowed for the requisite flexibility, although interview data was also examined under a quasi-qualitative lens.

Observation

To provide a basic context for the study, the observation method was used. The researcher observed not only how and when advertisements appeared on jumbotrons but also how fans reacted when advertisements were displayed. For the purposes of this study, anything that both appeared on the jumbotron and contained the logo or symbol of a sponsor was considered an advertisement. The researcher assessed whether a majority of the crowd paid attention to the advertisements, whether it cheered when prompted by a

jumbotron ad, and whether fans generally seemed to be entertained by jumbotron features.

Units of analysis included how much attention was paid to advertisements, as well as clapping, cheering, laughing, etc. in response to jumbotrons. Noise level in stadiums was also subjectively measured; theoretically, if an ad-based prompt encouraged fans to cheer at a crucial moment, it could have had a subtle effect on the game. The researcher employed the participant-observer role to observe his subjects in their natural environments and to establish relationships with the actors. The researcher took detailed field notes not only on the advertisements presented, but more importantly, on how the fans responded to them. Notes were recorded, detailing when fans responded enthusiastically to advertisements as well as when they did not.

Vantage points varied; the researcher started in different positions at each stadium, and moved throughout the ballparks during games. Most games lasted about three hours and all lasted nine innings, which offered the opportunity for multiple stadium sections to be covered. One advantage of observation is it allowed the researcher to see fans' instant, knee-jerk reactions to advertisements. Although interviews were important to lend insight into fans' thoughts, they allow room for consideration, which can lead to misinterpretation.

Interviews

The interview was an ideal tool to measure fan experience because it allowed participants to provide their opinions and experiences. Furthermore, interviews gave the researcher an opportunity to explore information on issues that were unseen—one's

personal experience, in this case—and to create meaning from the collected data (Tracy, 2013, p. 132).

To understand what fans liked, didn't like, and responded to, ethnographic interviews (Spradley, 1979) were conducted inside the stadiums. Fans were randomly approached for interviews. Of course, the researcher could have attempted to interview certain types of people. In theory, he could have identified young fans, middle-aged fans, and older fans, for example, and approached an equal number of each. However, doing so would compromise the integrity of the study because it sought to determine how average fans feel about jumbotron advertising. If a higher percentage of fans who attend games are young, the study should reflect that by incorporating more young fans. Over the course of many stadiums and interviews, random selection produced an approximate representation of the demographics of baseball fans. The researcher did not directly ask for respondents' race or ethnicity, which would have been insensitive, but he did ask for their ages.

The researcher approached fans before and after games who were in their seats or seated in common areas (e.g. concourse picnic benches), so as to allow the subjects to be comfortable and generous with their time. Many fans arrived at stadiums well before games began, which provided the researcher ample opportunity for detailed interviews. In addition, some fans stayed in their seats after games in order to avoid traffic, for example. Interviews during games themselves were attempted but abandoned after the researcher struggled early in the study to interview subjects and observe the jumbotron and crowd at the same time.

The average interview lasted about 20 minutes. Over the course of 12 games, the researcher conducted 66 interviews, just shy of his pre-study goal of 75. Before each interview, participants were informed their responses would be written down but that each participant's answers would remain anonymous in this study, and that verbatim transcripts of interviews would not be produced. Instead, the researcher took shorthand notes during interviews that highlighted certain terms, phrases, or other noteworthy responses. The study identifies participants with pseudonyms. The researcher asked participants to answer questions from a previously designed interview guide (as seen below), but the researcher allowed himself leeway to be creative and to improvise questions to effect meaningful dialogue. At times, he reorganized the question order, altered the wording of questions, and asked follow-up questions as needed.

Interview Guide

1. How often do you attend MLB games?
2. How old are you?
3. Why do you come to games?
4. When you go to a game, do you expect to be entertained by events other than baseball?
5. Do you find games more entertaining nowadays than you did when you were younger?
6. Do you participate in any of the interactive features that take place on the jumbotron?
7. Do you notice the jumbotron when you come to games?

8. Would you say the presence of the jumbotron encourages or discourages you from attending a game?
9. In general, how do you feel about jumbotron advertising during baseball games?
10. Does advertising affect—enhance or detract or neither—your experience at MLB games?
11. Have you ever felt that your attention is torn between the screen and the action on the field?
12. Is there anything else you want to say about jumbotrons or advertising in MLB stadiums that you haven't told me already?

Data Analysis

Analysis of the data procured from observation was straightforward. The researcher pored over his field notes and assessed what he observed in each stadium, with special attention paid to how stadiums presented their jumbotron advertisements as well as moments that stood out as unique or noteworthy. The findings section of this study details how often jumbotron ads appeared and whether they appeared during innings or only between them, for example. Analyzing the observational data was subjective. It was up to the researcher to determine which observations were noteworthy.

The information from interviews, on the other hand, required the constant comparative method to break data into codes. It is a useful tool for researchers to modify codes to fit new data, or to disassemble them and create new codes (Tracy, 2013, p. 190). According to Tracy (2013), the method also allows researchers to “consistently review

their codes” and avoid “definitional drift” during the coding process (p. 190). Similar responses were grouped together manually by the researcher and became a primary set of codes. To categorize these codes, the researcher moved on to secondary-cycle coding. The *axial coding* process was used to narrow the data into fewer, smaller groups under “umbrella categories” (Tracy 2013, 195). Then, the most prominent codes were analyzed to understand what themes emerged from the study. For example, the research could have identified groups of people who see jumbotron ads as part of the game, or as completely inappropriate and a distraction from the game.

Findings

Observation

It is relevant to begin this section where the entire project was born: Wrigley Field in Chicago. Despite its lack of a traditional jumbotron (which will be installed beginning in 2015), two features, a thin “ribbon board” in center field and a rectangular video screen in right field join forces to equal, more or less, what the much bigger jumbotrons in the other 11 observed stadiums displayed. Although any observer would be hard-pressed to say “Wrigley Field contained a true jumbotron on July 23, 2014,” the researcher noticed virtually no difference between the game presentation at Wrigley Field and that of the 11 ballparks he had previously visited. For example, after the bottom of the first inning, but before the top of the second began, the public address announcer said, “And now direct your attention to the right field scoreboard as Budweiser presents ‘Who’s hot.’” Then, with Budweiser logos both appearing on the right field screen and occupying the entirety of the center field screen, a video clip played in right field of various MLB players who were playing well. Similar scenarios occurred between innings at the other 11 ballparks; the only difference is that at Wrigley, due to the lack of a traditional jumbotron, the message required two smaller screens working in

conjunction. Later, while the Padres' position players were warming up in the field and the Cubs readied to bat before the bottom of the second inning, the public address announcer read an advertisement for Giordano's pizza touting it as the "official pizza of the Chicago Cubs" and its logo appeared on the right field screen.

Although at the outset of this study Wrigley Field was considered to feature a different game presentation than the other stadiums (and therefore could have been used as somewhat of a control group,) it did not differ noticeably from the other ballparks. Therefore, its two video screens will be considered jumbotrons for the purposes of this section.

Perhaps unsurprisingly, the participant-observer analysis revealed a striking similarity in the game presentations at the 12 stadiums observed. From the first pitch of each game until the final out of each, a clear pattern emerged. During innings, jumbotrons remained static and displayed game information such as linescores, batting orders, and the seasonal statistics of present batters and pitchers. In several stadiums, defensive arrangement was displayed. Occasional exceptions to the stationary graphics standard appeared after base hits (when the home team was batting) and after outs (when the home team was in the field). In many of those instances, replays sponsored by various companies and corporations were displayed. In the researcher's immediate surroundings, over the course of the study, an estimated 60% of fans turned their attention to the jumbotron screen in order to see a replay. That number is significantly higher than the researcher had expected.

In order to illustrate the crux of the observation portion of this study, a sample section of the researcher's field notes from the Milwaukee-Cincinnati game at Miller Park in Milwaukee on July 21, 2014 appears is reproduced below.

- Announcement: "Tonight's Klement's 'Play-Ball Kid' is..." before the Brewers take the field for the top of the first inning. A kid announces, "Play ball." Almost no one claps or cheers.
- After they take the field, as they're warming up, a "WE Energy High-Energy Player of the Year" title card flashes on-screen, featuring Jean Segura highlights. Some fans watch; many do not.
- Afterward, linescore appears on screen with a small Miller Lite logo in lower-left corner.
- From my seat on the third base line, 62 different stationary advertisements/logos are visible.
- First pitch occurs. The first out is recorded, and a WE Energy Replay title card flashes on-screen, along with a replay of the first out. The same thing happens after almost every play in favor of the Brewers, the home team, whether they record an out or achieve a base hit. Many fans look to the jumbotron screen to watch replays.
- After a double play is recorded to end the top of the first inning, a title card appears on-screen, with an accompanying announcement, telling the crowd that an "Orbis double play" was turned, and that for each, the Brewers make a \$25 donation to a local charity. The announcement garners little visible interest.

- Between the top of the first inning and the bottom of the first inning, an announcement is made promoting Klement's Sausages as the "official sausage of the Milwaukee Brewers," and a video plays on the jumbotron glorifying tailgating. The Klement's logo appears on-screen. A few fans around me watch disinterestedly. Many more are engaged in conversation or on their phones.
- Then, an announcement is made: "Fans, please direct your attention to the scoreboard for an update on the Brewers' homerun leaders, brought to you by the Wisconsin Lottery." An accompanying Wisconsin Lottery logo appears on the jumbotron. It appeared that the announcement asking fans to direct their attention had an effect, as more fans looked up than for other features.
- Then, a highlight of Ryan Braun, the Brewers' left fielder, plays. It is accompanied by a card in the lower left corner of the screen that says "Briggs and Stratton Ryan Braun Replay" along with the Briggs and Stratton logo. A trend is emerging: replays garner more attention than most other features.
- The Brewers come to bat in the bottom of the first. There is no "WE Energy Replay" when the Brewers' leadoff hitter makes an out.
- On-screen during the bottom of the first (and all subsequent innings) appear the following: a linescore, a picture and biographical information (including when he made his MLB debut and Twitter handle) of the current batter, his basic and situational statistics (i.e. 2014 with bases empty), a listing of the Brewers' lineup, alongside each player's batting average, a diagram of the Reds' defensive alignment, which Reds batters are due up in the following inning, the current

pitcher's name and basic statistics, and a Miller Lite logo in the bottom-left of the screen.

- After the bottom of the first inning, the University of Milwaukee-Wisconsin's logo appears on-screen along with a "fan cam," showing random fans in the seats. It also displays a "fun fact" about how many hot dogs United States citizens consume in a year. Not many fans pay attention, although the ones who are featured on the screen are excited.
- Then an announcement is made: "The Brewers welcome these people and companies." No logos appear, but a list of about 15 company names appears on-screen. At least among the people around me, it is greeted with disinterest.
- Another announcement is made: "Fans, your vote counts. Please vote in the WE High-Energy Player of the Year Text Poll." A phone number appears on-screen, along with the WE Energy logo. No fans rush to pull out their phones to comply and again, it is met with disinterest.
- Yet another announcement is made, announcing the beginning of the "Dew Deck Rock Climbing Challenge." (The Dew Deck is an area above the right field bleachers featuring several Mountain Dew logos and a rock-climbing wall shaped like a soda can. A contestant tries to climb it in 20 seconds. An almost negligible applause is rendered when he succeeds.)
- During the Dew Deck dalliance, a sign that says, "The Brewers welcome Wheaton Franchise Care" appears on the jumbotron, to the side of the video of the man finishing his climb. It goes unnoticed, as far as I could tell.

- During the top of the second inning, a US Cellular logo has replaced the Miller Lite logo in the lower-left of the jumbotron.
- After the top of the second inning, the jumbotron shows the US Cellular Power Playground behind one of the sections in the ballpark. An announcement is made: “Visit US Cellular for the very best...” It elicits no visual or audible response from the crowd.
- Then, a sign flashes on the jumbotron which pitches a promotion: text “win” to a given phone number to be entered for a chance to win a \$50 gift card. Many eyes were on the screen; at least, more than for other promotions I’ve observed.
- Next, an announcement is made that “It’s time for the Time Warner Cable T-shirt Toss.” The jumbotron shows cheerleaders running around the field throwing t-shirts into the crowd, along with a Time Warner Cable logo. At the same time, the screen reads “The Brewers welcome” and lists about 10 organizations, including Sheboygan’s Pizza Ranch. This notification receives little attention; the t-shirt toss, however, draws a great deal of attention from the crowd, especially in the lower level. Fans stand up and cheer to try to attract the attention of the cheerleaders throwing the shirts.
- After the bottom of the second inning, an announcement is made: “Smile, it’s your birthday.” The names of people whose birthday it is appear on-screen along with a Delta Dental logo. This feature attracts a little attention among the fans.

- Next, figure skater Bonnie Blair appears in a commercial on the jumbotron for Catholic Relief Services Wellspring of Hope, a clean water initiative. No reaction whatsoever from the crowd and very little attention paid.
- Then, a title card featuring the logo of British Petroleum appears on the jumbotron and announces to the crowd that it's time for the BP Brewers Rollback. The screen shows video of Hank Aaron's last career home run. On the side of the screen during the video, it reads "Milwaukee Tool welcomes Orgill Dealers." The video of Hank Aaron attracts more eyeballs than other features, but no audible response.
- During the top of the third inning, Potawatomi Hotel & Casino's logo replaces the US Cellular logo on-screen, next to the linescore at the bottom of the scoreboard.
- After the top of the third inning, a Veteran's United commercial plays, audio and all. Then, the public address announcer says, "Please welcome the Hero of the Game," an army veteran. The logo for the United Association of Plumbers, Pipefitters, and Welders appears on-screen. With the logo on-screen, the jumbotron displays crowd shots. Only the people fortunate enough to be featured on the screen exhibit any emotion.
- After the bottom of the third inning, an announcement is made: "Fans, watch the field for the Grounds Crew Touch-up, sponsored by Caterpillar." The grounds crew rakes the infield as a Caterpillar logo appears on-screen.
- Next, the public address announcer says, "Fans, play along with the Waste Management Phrase Game." A Wheel of Fortune-like game appears on the

jumbotron, accompanied by a Waste Management logo and a card that says, “Visit bagster.com for more information.”

- Another announcement: “Fans, turn your attention to the videoboard for the Pick-n-Save Kiss Cam.” At this, many fans, approximately three out of every four, watch the videoboard and react with enthusiasm to awkward or touching moments.
- After the top of the fourth inning, a sign for Kohl’s appears on the jumbotron along with an announcement on the public address system encouraging fans to cheer on the Brewers by holding up posterboards with Kohl’s logos on them. Fans were able to pick up these posterboards before the game at a desk. Attendants gave out markers with which fans could write messages on the posterboards. The jumbotron proceeds to show fans throughout the ballpark holding up their signs. After seeing one particular sign, the man next to me chuckles. Few others do. Reaction is minimal.
- Next, the public address announcer says, “Fans, please direct your attention to Toyota Territory, where tonight’s Toyota Kid will announce the Brewers’ batter.” Toyota Territory is an area beyond the right-center field wall where a Toyota SUV sits. If a Brewers player hits the vehicle with a home run, someone wins the car. The car is shown on the jumbotron, which proceeds to zoom in on the Toyota Kid, a boy of maybe eight years. He announces the batter to begin the bottom of the fourth inning.

- During the bottom of the fourth inning, a replay is needed. The umpires retreat to the home dugout to watch a slow-motion replay, while the public address system announces, “This replay is presented by Samsung.” Almost everyone affixes his attention to the jumbotron screen to watch the replay, and the Samsung logo remains on-screen throughout, along with a sign from 620 WMJ radio station welcoming various clients.
- After the bottom of the fourth inning, the jumbotron shows a fan on-screen who has won a free snack bag. The public address announcer says this is the “Santitas Snack Break.” No one is paying attention or congratulating the lucky fan.
- Next, the announcer requests, “Fans, please turn your attention now to the videoboard as Allstate presents the ‘Good Hands Catch.’” An Allstate logo appears on-screen. It disappears, and an even bigger Allstate logo appears alongside video of the ‘Good Hands Catch.’ Again, a few folks around me watch the play with passing interest.
- Then, a logo for Delta Dental appears, and the announcer says “Smile, it’s the Delta Dental Smile Cam.” The jumbotron screen features fans, mostly children, grinning ear-to-ear. In the seats, there is little response.
- After the top of the fifth inning, an announcement is made over the loudspeaker that the Brewers donated to a project for a local charity. No logos appear on the jumbotron, but video of Brewers players building houses is played. A woman in the row behind me watches with rapt attention, but there is no audible applause.

- Next, a Stubhub logo appears on-screen and the announcer asks “Where’s Bernie?” and describes that one lucky fan, if he can locate Bernie, the Brewers’ mascot, will win a \$25 Stubhub gift card. The jumbotron screen is split in two: on the right side, we see a male fan frantically scanning the crowd; on the left side, the camera pans throughout the ballpark, looking for Bernie. Eventually, the man spots the mascot and wins the gift card. The public address announcer congratulates him and tells fans to do likewise, but they either don’t hear his plea or ignore it.
- Then, the public address announcer says, “Fans, you could win a Toyota Highlander.” A Toyota logo appears on-screen as the announcer describes the potential for a player to hit the car with a home run. The jumbotron shows the vehicle, pristine and bright red. It doesn’t seem to attract the attention of any fans around me.

The observed jumbotron presentations, announcements, and sequencing in Milwaukee are accurate representations of what occurred in the other 11 stadiums; the only aspect that greatly differed from stadium to stadium was the names of sponsors. The same trend continued to emerge, stadium after stadium: several jumbotron ads between innings, usually accompanied by announcements. Everything was sponsored. At all 12 parks, between some innings, veritable television commercials played promoting products and/or companies. At all 12 parks, between other innings, crowd shots appeared on the jumbotrons under the premise of a certain theme. Eleven of the 12 stadiums featured a “smile” segment, in which logos of dental companies appeared beneath the

smiling faces of fans throughout the ballpark. At all 12 observed stadiums, jumbotrons displayed the names of people who were celebrating birthdays that day, accompanied by the logo of a company or product. Half of the 12 parks occasionally featured emcees on the screens who asked fans trivia questions or guided him through a game that played out on-screen. The hat dance, for example, was a common game. It appeared at 10 of the 12 observed stadiums, and at those 10, it was brought to the fans by a sponsor, whose logo appeared on-screen.

Of all the gimmicks that appeared throughout the 12 stadiums, few elicited audible responses from the crowd. At several stadiums, contestants on-screen for the hat dance failed to correctly identify under which hat the baseball lay. In those instances, the researcher heard vague (i.e. emanating from perhaps one-third of the crowd) sighs of dissatisfaction or sympathy. Conversely, when the hat dance contestant chose the correct hat, approximately one-third of the crowd clapped or cheered. Neither response was overwhelming, but at the very least, they were noticeable.

It was a similar story for one of the other common ballpark features: races. At eight of the 12 observed stadiums, jumbotrons displayed a race of some sort. In Kansas City, for example, before the bottom of the third inning, animated hot dog condiments appeared on-screen and raced around an animated baseball diamond, as Farmland Industries' logo appeared in the corner. Races drew more of a reaction at ballparks, on average, than hat dances. Although Kansas City's race, the "Hot Dog Derby," represents an outlier thanks to its standing as a decades-old staple of Royals games, about 60% of the fans in the researcher's immediate area had their eyes affixed to the race, and many

could be heard cheering or clapping as the race came down to the wire. In other stadiums, the percentage was closer to 40 percent. However, races were consistently at the top of the spectrum in terms of attention garnered. And, though beyond the purview of this study, when the races occurred live, as they did in Washington, Pittsburgh, and Milwaukee (featuring past U.S. presidents, pieorgies, and sausages, respectively), they drew even more attention and a louder audible reaction.

Another common feature, appearing at 10 of the 12 stadiums, was the “kiss cam,” in which couples were shown on-screen and encouraged to kiss. Naturally, the kiss cam was presented by a sponsor whose logo appeared on the jumbotron. Kiss cams were one of the most popular jumbotron advertisements. In the 10 stadiums that included it, approximately 75 percent of fans watched, and around the same number laughed or winced or awed, depending on the outcome of the kiss.

Other features that appeared in at least eight of 12 stadiums and attracted more attention than the average were “T-shirt Tosses” and “Veteran of the Game” displays. During the former, cheerleaders threw t-shirts into the stands, while sponsors of those events’ logos appeared on jumbotrons next to videos of the cheerleaders’ throws. During the latter, military veterans were shown on-screen, often in fatigues. At most of the ballparks observed, these features were sponsored, and organizations’ logos appeared on-screen alongside videos of the honored veterans. In those two circumstances, T-Shirt Tosses and Veterans of the Game, however, the researcher observed that nearly everyone who wanted to view these spectacles scanned the stadium to watch them unfold live, instead of on the jumbotrons and therefore were not exposed to the logos on-screen.

Additionally, the dominance of replays in the world of jumbotron features bears further emphasis. Consistently the most watched feature, with up to an approximate 80 percent of fans tuning in, replays of even routine plays elicited the most vocal reactions, too. The researcher observed an almost Pavlovian reaction to good, bad, or controversial plays on the field, where a vast majority of fans seemingly have become conditioned to look to jumbotrons for a second view. Accompanying all replays in Milwaukee, for example, and most replays throughout the other 11 ballparks, are brand logos.

Outside of those six features, surprisingly few people paid attention to jumbotron advertising between innings. Virtually no one the researcher could see around him watched the jumbotrons' commercials intently; they washed over inattentive crowds, as fans talked among themselves or locked in to their cell phones. Some subjects glanced occasionally at the screens, but for the most part, jumbotron advertisements other than hat dances, races, and kiss cams brought little attention to themselves.

During innings, the game was the focus of the jumbotrons. As outlined above, during game play, jumbotrons displayed baseball statistics and game information and at most featured one static advertisement in the corners of their screens. Therefore, via observational analysis, jumbotron advertising's effects on the experience of *watching* Major League Baseball take place live were decidedly minimal. However, it would appear jumbotrons' abilities to show replays has a significant effect on the experience of *attending* Major League Baseball games. The ability to watch replays is one advantage of watching the game on television, but with jumbotrons, fans can enjoy the best of both worlds. Most observed replays were sponsored, and it is conceivable replays would not

be shown were they not sponsored. Therefore, jumbotron plus advertising have rearranged the sequence of focus for the average MLB fan. Whereas before jumbotrons existed, fans would likely watch a play and then either discuss the play with a companion or watch the next batter stride to the plate, now they watch a play, then watch the jumbotron, and then refocus on the game.

During a few between-inning features every game, jumbotron advertising's effects seem to have a significant impact on the experience of attending Major League Baseball games. Further, the ads seem to enhance the experience and produce enjoyment during otherwise empty periods of time. However, other than five between-inning features (out of 17 different between-inning timeslots), jumbotrons' advertisements and gimmicks had little effect whatsoever on the experience of attending Major League Baseball games. Fans did not pay attention to a majority of jumbotron advertisements.

Finally, it is important to note that according to observation, almost everything that appears on jumbotrons during MLB games is sponsored and therefore qualifies as advertising. For instance, the researcher observed that later in games, the frequency of "noise meters" (graphics displaying ascending levels of noise with meters that rise as the crowd cheers) and prompts to "make noise" or "cheer for the home team" increased. In some of those cases, energy companies sponsored the meters; other times, the meters featured no less than the home team's logo itself, a de facto advertisement for the club. Noise meters appeared pre-recorded and therefore did not respond to rises or falls in noise level. Accordingly, they elicited little response from fans.

Interviews

Some demographic information on the 66 interview subjects:

- 45 males, 21 females
- 11 between the ages of 18 and 25; 10 between the ages of 26 and 35; 14 between the ages of 36 and 45; 12 between the ages of 46 and 55; and 19 who were older than 55
- 50 were white; eight were black; five were Hispanic; two were Asian
- 15 were in East Coast cities; 41 were in Midwest cities; 10 were in the South
- Five interviews were conducted at each stadium except: Pittsburgh (six); Minnesota (six); Milwaukee (seven); Chicago South Side (seven)
- 33 respondents reported they attend between one and four games per year; 17 reported attending between five and eight games per year; six reported attending between nine and 12 games per year; five reported attending between 13 and 16 games per year; and five reported attending more than 16 games per year

Those numbers and the subsequent ones come from a purposive convenience sample of fans approached at random at 12 different MLB stadiums. Further numbers reveal that a majority of fans (57 percent) do not expect to be entertained by anything other than the game on the field when they attend one. However, an overwhelming majority, 57 of 66 people (87 percent) *notices* other aspects of the experience (including but not limited to jumbotron features). For example, of the people who notice other parts of the game presentation, 17 said they notice “stats and replays,” or some variation thereof; 12 noticed non-baseball-related aspects such as races displayed on-screen.

Respondent 51, for example, described these non-baseball-related aspects as “kind of cute,” a sentiment that was echoed in six other interviews. Furthermore, 13 subjects mentioned the jumbotron itself as one of the first things they notice other than the game. Later in the questionnaire, subjects were asked directly if they notice jumbotrons when they attend MLB games and 57 out of 66 responded in the affirmative. These numbers, when taken as a whole, form an unsurprising finding that jumbotrons attract attention. Following questions sought out how pervasive they are.

For instance, when asked whether jumbotrons tear attention away from the game, 20 respondents said yes and 46 said no. When the 20 “yes” responses were cross-examined with the question “Does jumbotron advertising enhance or detract from your game experience?” nine said it “enhances” compared to eight who said it detracts. According to those numbers, even though jumbotrons tear attention from the game, they usually do so in an entertaining, endearing way.

Further, when asked their opinions on jumbotron advertising, 13 respondents described it as a “necessary evil” (or some variation thereof) and only six said they enjoy it. A significant segment of respondents was either indifferent to jumbotron advertising (27); thought there’s too much of it (four); didn’t like it at all (seven); or actively tried to tune it out (nine). Again, these numbers suggest jumbotron advertising does have an effect on game experience. According to these responses, the effect is not a positive one. However, of the 24 respondents who said jumbotron advertising detracts from the game experience, a whopping 75 percent (18) also responded that it neither encourages nor discourages them from attending. Therefore, it is reasonable to extrapolate that feelings

about jumbotron advertising are not strong enough to diminish attendance at games. Nor are they strong enough to *increase* attendance; whereas 17 respondents said jumbotron advertising discourages them from attending, a similar 16 said it encourages them to attend. A majority of respondents (43) said it neither encourages nor discourages their attendance.

Of course, there were some strong opinions expressed, particularly when it came to the most direct question, “What are your thoughts on jumbotron advertising?” For example, Respondent 19 said he has “come to accept it despite how blatant it is.” Respondent 7 plainly wished jumbotron advertising didn’t exist and lamented that he has to put up with it. On the other hand, when respondents had positive reviews of jumbotron advertising, their opinions often centered on replays. Respondent 26 said he’d “put up with as much advertising as necessary so I can see all the replays I want.” Of the sizable “necessary evil” contingent, many responses mentioned that their opinions of jumbotron advertising have changed as it’s become more prevalent. Respondent 1, the first interview subject of the study, remarked that the “constant stream of ads might have bothered me back in the day, but they don’t anymore. The ads meld into the whole experience.” Although it was a minority opinion, those who were adamant in their support of jumbotron advertising echoed the sentiments of Respondent 42, who said she wishes there were more of it.

As far as participation in jumbotron advertising, the numbers were well scattered. Eleven respondents said they cheer when the screen prompts them to; 21 said they use the jumbotron exclusively to find baseball-related information, such as statistics and lineups.

The first and only significant disconnect between the researcher's observational data and his interview data appeared when it came to participation in non-baseball related features, such as the kiss cam and races. Only nine respondents said they participate (i.e. actively rooting for a certain contestant in an on-screen race or reacting to the kiss cam when it displays an awkward or affectionate moment) in non-baseball related jumbotron advertising. Out of 66 total respondents, 25 said they don't participate at all. Those numbers belie the observational data that suggested races and the kiss cam elicit reactions from a majority of the crowd. Despite the disconnect, though, according to the answers to the participation question, it appears jumbotron advertising has a two-pronged effect on the experience of attending an MLB game: first, it makes cheering slightly more frequent thanks to its prompts to make noise. Second, among the sizable percentage of respondents who notice jumbotrons when they attend games, 32 percent (18 out of 57) said they use them to observe baseball-related information. Therefore, it can be reasoned jumbotrons have the effect of making baseball fans more educated about the game on the field and perhaps more tuned into it, on the whole.

One of the most lopsided responses among interview subjects was whether they'd mind advertisements on-screen during innings instead of only between innings. A massive 83 percent (55 of 66) said they would oppose commercials, kiss cams, hat dances, and the like during innings. Again, other than statistics and replays, the observational data revealed that teams adhere strictly to an implicit rule against jumbotron features during innings. The coupling of those two data points suggests it's

unlikely MLB games will see a dramatic increase of in-inning advertisements in the near future.

Discussion

Although technically beyond the purview of this study, the researcher was hopeful it would reveal interesting data regarding which demographics responded which way. He expected, for example, that younger people and those who attend fewer games per year would pay more attention to jumbotron advertising and would participate in it more. He expected older subjects and more diehard baseball fans to pay less attention to it. And this might still be the case. However, the study was unable to draw a conclusion regarding differences along the lines of age, gender, racial, and frequency of attendance. Part of the difficulty was a lack of interview data. Despite conducting as many interviews as possible and attending as many games as possible during the course of the study, 66 interviews still were not enough to state, beyond a doubt, that women pay more attention to jumbotron advertising than men, for example. Another unexpected result of the study was the prominence of baseball-related information and replays, and how much they're noticed. Whereas it would have been reasonable to hypothesize that diehard baseball fans who attend more than 16 games per year would spend more time watching the field instead of the jumbotron screen, it turned out that many counted on receiving valuable baseball information from the screen.

Additionally, although the researcher didn't necessarily expect to conclude anything based on factors such as race, region of the country, city, time of game (day vs. night), day of game (weekday vs. weekend), size of crowd, or success of home team, it was conceivable at the outset that fans of winning teams, for example, would have been more focused on the field of play than fans of losing teams. Again, more interview data could have helped, but it's unlikely.

Another unexpected realization that fell beyond the purview of the study was the prevalence of observed public address announcements that supplemented jumbotron ads. A vast majority of jumbotron ads between innings were accompanied by announcements asking fans to turn their attention to the screens or supplying additional information.

As with many studies, this one received a touch of funky feedback. For example, three people who said they don't notice jumbotrons when they come to games said they do participate in observing baseball-related information on them. Those respondents might have misunderstood the questions or interpreted ribbon boards that display pitch-speed readings or ball-strike counts at many MLB stadiums as jumbotrons.

Regarding the disconnect between observational and interview data, where respondents said they participate little or not at all in jumbotron advertising despite observation that says otherwise: the most likely solution is that respondents failed to recognize the popular features, such as the kiss cam or races, as advertisements because they enjoy them. Instead, interview subjects might have been saying they do not participate in or follow features such as the "Dew Deck Rock Climbing Challenge" in

Milwaukee or the “X-Finity Home Run Challenge” in the South Side of Chicago, at White Sox games.

Naturally, there were some limitations to this study that could not have been overcome. For example, although considerable amounts of data were collected both in the form of interviews and observation, more is always better. Surely data collected from an entire season’s worth of games would have produced more results. Additionally, as far as the interviews, self-reported survey data has limitations of bias, forgetfulness, and malleability. It is altogether possible that some respondents (such as Respondent 38, who said “I know it sounds bad but I do what the giant TV tells me to do”) could have been embarrassed to give candid responses because of the nature of the questions. When left to their own words to describe their own behavior, people can skew the truth. Further, their responses inherently cannot acknowledge the advertisements that had subliminal impact. As Respondent 44 said, “I’m so accustomed to the advertising, I don’t really notice it. They do well to get it to us subliminally.”

The researcher also noted that when referring to their own jumbotron screens, MLB teams did not use the term jumbotron, instead opting for the more baseball-centric connotation of “scoreboard” or the more precise “videoboard.” Perhaps that nugget has to do with the fact that technically, JumboTron is a registered trademark owned by the Sony Corporation (although the non-proper noun usage has become common parlance, a la Kleenex). If so, it would represent the rarest of events: MLB teams losing out on opportunities to profit by having a brand sponsor the jumbotron itself.

As far as MLB teams are concerned, this study has implications for their implementation of jumbotron advertising. Above all, it demonstrates how savvy their jumbotron operators are, for they have managed to optimize the number of advertisements streamed toward fans while carefully toeing the line of how much people can ignore or tolerate. In the approximately 150 seconds between innings, teams and jumbotron operators have to maximize advertising. Clearly, they have mastered the skill. However, this study suggests there might be a better way. Because many fans are tuning out most advertising (subconsciously or otherwise), it might make sense to pull in the reins somewhat. Today's technological world has forced people to expect constant stimuli. It's almost unheard of these days to see someone waiting for a bus or even eating dinner without headphones in his ears or a cell phone next to her plate.

Constant stimuli—noise, information, colorful sights—has become the norm. Often, the best way to attract attention is to *defy* the norm. Therefore, instead of a stream of advertising after each half inning, the occasional nothingness could work wonders. In fact, a future study on the effectiveness of minimalist advertising would serve a purpose in the sports world, if a researcher were interested in that field. After three breaks in baseball action with ads, imagine one with silence. Fans might wonder if the public address system malfunctioned; they might wonder if the lightbulbs in the jumbotron went out. But their blasé attitude toward jumbotrons would be shaken into casual interest at the very least.

Peabody Energy, one of the largest coal companies in the world, used a similar idea for a couple of years in its jumbotron ads at St. Louis Blues hockey games. Between

periods, with the arena already darkened, the jumbotron suddenly went black for a second. Then, only the cursor of a word processor appeared, and a message was typed on-screen which suggested fans could stave off the next energy blackout by switching to coal. For season ticket holders (as the researcher was at the time), the novelty of the “blackout” wore off eventually. But for the thousands of Blues fans who were attending their first game of the year, the sudden lack of stimuli must have been jarring and attention grabbing. Occasional nothingness would attempt to satisfy the fans who feel jumbotron ads are intrusive. It would also make the average advertisement more valuable and more visible because fewer fans would tune out ads on the whole.

Despite the general disinterest in jumbotron advertising between innings, there is little doubt the ads are effective. This study did not delve into brand recall, but surely advertisers are not throwing their money away. It is safe to assume jumbotron advertising is effective. Association with professional sports teams, especially MLB teams, and especially MLB teams with a century’s worth of history in a given city is highly sought after for a reason: sports bring people joy, and if people are happy when they see a brand or product, they are more likely to consume it. Therefore, advertisers’ interest in infiltrating MLB stadiums is likely to remain high. Moreover, professional sports arenas might become a sort of last bastion for advertisers; they shelter and house a dying breed: the truly captive audience. On the radio, when commercials play, listeners can change the station. On television, viewers can record shows and fast-forward through commercials. However, at MLB stadiums, no such luxuries exist. Advertisers will continue to seek association with MLB teams and penetration into their stadiums.

The medium of television, though, continues to exert its influence on the experience of attending MLB games. This study showed that fans at games have become accustomed to instant access to replays after every at-bat. That sequence is similar to the TV experience, where even replays of every *pitch* are sometimes available. The same goes for statistics; telecasts flood television screens with stats, and it is no coincidence jumbotron screens have adopted that practice. Nor is it a coincidence that jumbotrons arrived not long after baseball on TV proved successful.

Finally, as outlined in the literature review, this area of research is ripe ground for future study. With infinite time and a greater budget, researchers could conduct research over the course of an entire baseball season. In fact, they could conduct it over entire seasons in the four major United States professional sports leagues—MLB, the National Football League, the National Basketball Association, and the National Hockey League—to see how the effect of jumbotrons compares and differs by sport, if at all. With a team of researchers positioned throughout stadiums, more information could be observed regarding fans' responses to certain jumbotron features. However, because observational data in this realm seems more reliable and conclusive than interviews, the ultimate study would find some way to quantify the enjoyment and enhancement of experience jumbotrons provide.

On the other hand, a study that could determine a “breaking point” for fans—that is, an amount and frequency of advertising that would so disgust fans as to keep them from attending games—would be helpful to teams and fascinating to many baseball fans and sports academics. There *is* a breaking point; it might not be too far from what this

study observed. Regardless, teams should be cognizant of advertising's potential to damage the experience of live Major League Baseball.

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