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Memory Retention Rates of Gossip-Related Information

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MEMORY RETENTION RATES OF GOSSIP-RELATED INFORMATION

by
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ABSTRACT

The aim of this study is to determine if gossip-related information produces higher memory retention rates than scientific information. Participants completed a two-part survey. During the first part of the survey, participants read nine paragraphs, separated into three categories. Three were scientific, three were non-celebrity gossip, and three were celebrity gossip. After reading each article, participants rated each on a scale of 1-10 based on both personal relevance and how interesting they found each article. After a week delay, participants completed a multiple-choice memory test about the articles read the week before. The study found that while scientific articles were rated as the most relevant to participants' lives and there was no significant difference in interest levels among each type of article, celebrity gossip was remembered at higher rates than either other type of information.

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Introduction

Across the globe, the presence of gossip in societies is seemingly ubiquitous. From a young age, gossip appears almost immediately as individual social facilitation begins. Parents and teachers warn children not to gossip and that it can be harmful to the people they are discussing. Similarly, many religious works advise against gossip. Ecclesiastes states, "Whoever repeats gossip lacks understanding." Sir Richard Steele, co-founder of *The Tatler* in the eighteenth century warned, "Fire and swords are slow engines of destruction, compared to the tongue of Gossip" (Sarkis, 2012). However, for a subject that is so common in society, there is very little empirical research as to what might cause this type of information exchange. While there is a multitude of research on language and memory processing, Foster (2004) noted the few number of studies and seemingly small pool of information about gossip and the functions it serves individuals. The goal of the present research is to study how gossip plays a role in memory retention and if the previously proposed theories as to what function gossip serves might possibly be supported.

Literature Review

Defining Gossip

Before discussing the present research, it is important to clearly define gossip. In 2004, Foster defined gossip as the exchange of information between two parties about a

third party, without the third party's presence. For the purpose of this study and previous studies related to this subject matter, gossip will refer to information exchanged specifically about individuals or groups, rather than events. Inherently, it is assumed that gossip must mean negative, harmful, false, or salacious information. However, gossip can be positive or negative. Positive gossip would be categorized as conversations about an individual getting a new job, promotion, award, or any other positive experience. On that same note, just because information is truthful does not exclude it from the definition of gossip. The fact that the person being discussed is not present is what classifies the information as gossip.

In his review of gossip research, Foster (2004) found this is evident in everyday social practices. Whenever two people are exchanging information about a third party, in most cases, if the subject, or a relative or close friend of the subject, was to come within earshot of the conversation, most likely, the conversation would end. In the field of gossip research, there is a divide among researchers as to whether or not gossip is normally negative, malicious, or harmful. Foster (2004) suggested that a possible way to resolve this debate is to separate rumor and gossip. "Rumor" differs from gossip mainly in the sense that it is primarily speculative and is sometimes in reference to events rather than people. Although there is some debate about different types of gossip where the subject may actually be present, overall, modern researchers in this field define gossip by absent third parties.

Just as De Backer and Fisher defined gossip in their study, mass media headlines and stories will be defined as gossip for the purposes of this study as well (De Backer & Fisher, 2012). The writers of the headlines and stories will be one party of the gossip

exchange, with the reader serving as the receiving party. The subject of the headline or article would be the missing third party. A facet of the present study was the use of both celebrity and non-celebrity gossip articles. These are classified as gossip following De Backer and Fisher's definitions, regardless of the fact that the information is not exchanged in real time in a face-to-face interaction.

Facts About Gossip

Psychologist Nicholas Elmer reported that close to 80 percent of adult conversations are gossip, while also stating that only about 5 percent of gossip is malicious (Black, 2009). This phenomenon of gossip exchange can be seen also in the media and entertainment. For the first half of 2010, *People* magazine reported 1.29 million weekly readers (De Backer, 2012). *People* magazine is a medium of information exchange about a third party; in most cases, that third party is a celebrity. As far as the amount of time spent gossiping, there seems to be no significant differences based on gender, which is contradictory to most common assumptions. Because this definition of gossip can include information exchange about sports teams, politicians, or newspaper headlines, while there might be a difference in the type of information that is the subject of gossip, the amount of time spent engaging in the act seems equivalent.

Functions of Gossip

There are many possible explanations as to what function gossip serves. Foster notes that the paradox of gossip is that it is ubiquitous all over the world in every known society, but it is typically socially unacceptable. For something that has been noted as

socially unfavorable for all of recorded human history, researchers are interested in the possible underlying reasons for gossip to absorb so much of society's time. Because such a significant amount of adult conversation includes gossip, researchers have proposed a number of ideas. These possibilities range from serving evolutionary causes, to biosocial factors, to social functions.

Evolutionary Function

From an evolutionary perspective, humans hail from the ancient order of primates, and more specifically, from the subgroup of primates known as catarrhines. Through ethologists' research, we know that primates form social groups for protection from predators. These groups typically cap at approximately eighty individuals. However, in groups this large, there will be negative consequences. In these large groups, primates will form alliances with each other. These alliances not only provide protection, but also comfort and social reinforcement.

Grooming helps primates form these alliances. Dunbar found that when apes are being groomed, they experience a release of endorphins that signal relaxation and comfort (2004). He notes that in humans, the same endorphins are released. Humans engage in grooming behaviors like petting, stroking, and rubbing in their intimate relationships. Through these exchanges, humans experience feelings of safety, comfort, and warmth.

As a group grows, individuals will have to travel farther to find food and will have less time for grooming, and furthermore, less time to engage in this social interaction. At some point through evolution, primate group sizes exceeded the number where grooming would be enough to fulfill the social bonding needs. No longer was the

limited amount of time available for one-on-one grooming enough. Humans evolved to use language to fill this void. It appears to serve the same purpose of providing social reinforcement, but language can be used while multitasking, which eliminates the need for there to be as much time committed solely to one-on-one interactions. Although there are many uses of language, there is evidence that language evolved to exchange social information, like gossip, and other uses evolved secondarily (Dunbar, 2004). Where primates and intimate human relationships use grooming to fill social voids, language closes the gap for less intimate, more public social interactions. In order to enhance these feelings of closeness, safety, and warmth to another person, information is exchanged between individuals.

Social Functions

Perhaps the most widely researched and accepted are the social functions of gossip. There is widespread acceptance in the field that gossip serves an integral purpose in individuals' social lives. There are many different ideas about what purposes exactly gossip serves in social situations. Gossip can be used to promote group solidarity or group separation, compare one's behavior to others, learn social cues, manipulate the reputation of others, or promote oneself.

In a group, gossip brings about cohesion and bonding. Foster recognized that typically, while engaging in gossip, the two parties know, at least on a basic level, the person being gossiped about (Foster, 2004). Gossip about a known person's behaviors, actions, or traits goes toward either promoting or damaging their reputation or the reputation of others. De Backer (2012) defined this type of gossip as Reputation Gossip.

In the case of media headlines or articles, whenever a celebrity is the topic, this typically is presented as a form of reputation gossip.

As they share information, whether positive or negative, there is a bond forming between the two parties gossiping. As previously discussed, gossip is still seen as taboo in most societies, regardless of how commonly it occurs. After engaging in gossip, particularly negative gossip, there are sometimes feelings of guilt or shame for sharing the information with someone else (Foster, 2004). Because of these feelings, gossipers typically choose whom they share the gossip with somewhat carefully. There can develop a feeling of closeness between the two gossipers by knowing a foundation of trust comes with the exchange of information. This promotes bonding between the two parties within the group.

However, engaging in too much gossip can alienate a person. Foster (2004) highlighted that having a reputation as someone who gossips too often can make the information they share be seen as unreliable and may lead to an individual being excluded from the group. While gossip can promote closeness, on the other hand, this practice of exchanging information can work to exclude individuals from the group. Whenever a newcomer does not know the subject of the gossip or the behavior being discussed, it separates them from the in-group (Foster, 2004). Gossip can be used to promote the closeness between certain members of the group while drawing subtle attention to those who are excluded. However, just because a person is unfamiliar with the subject of the gossip, it does not mean that the information does not serve an alternative purpose.

Whenever an individual is hearing gossip about a person's behavior that is considered scandalous or odd, the individual will pick up on social cues about acceptable behavior. Regardless of whether the person being discussed is familiar or not, the individual hearing the gossip can use context to learn about behavior. De Backer and Fisher describe this as Strategy Learning Gossip (2012). This type of gossip is especially useful when entering into a new social group. By hearing about behaviors that the group finds either acceptable or offensive, the newcomer can more successfully attempt to integrate into the group and conform the norms and expectations of the other members.

Previous research has found that gossip can be used to the subject's advantage. Throughout daily interactions, individuals typically know that they will be or are being gossiped about by others. This affects behavior. When an individual knows that they are going to be discussed, they manipulate the image they are presenting. In order to avoid public shame, individuals carefully calculate their behaviors in order to conform to social norms. Furthermore, with the knowledge they will be discussed, they can present themselves in a more positive light. By promoting the positive attributes of one's personality or behaviors, individuals can hope to manipulate their reputation (Foster, 2004). Basic knowledge of the almost guaranteed gossip that will occur at a later date can allow the subject of the gossip to attempt to control what will be said. This not only occurs when individuals hope to manage their own reputation, but they can use the same tools in an attempt to damage or promote others' reputations as well. In order to look at whether or not gossip may be better remembered than other types of information, it is important to look at possible biosocial or adaptive functions.

Biosocial/Adaptive Perspective

Gossip can include information about topics that are vital to our reproduction and survival. There is evidence that gossip is appealing to humans because it appeals to our basic functions of survival. When looking back to hunter-gather days, we see that the topics we find most appealing to discuss about third parties were crucial to adaptive problems our ancestors faced. Information about sexual scandals, or who was sleeping with one another held valuable reproductive information. A sensationalized story about someone dying after being in a certain area of a field would lead to information about possible poisonous plants that should be avoided for survival. De Backer and Fisher (2012) suggest that knowing who was fighting whom or who had access to certain resources also served very valuable purposes for survival and reproduction.

Further appealing to the evolutionary perspective is how individuals react to different types of information. Stories in magazines or newspapers that allude to ways to avoid danger will be responded to more than stories about how to promote well-being. Stories about how to avoid danger appeal to our adaptive processes because our ancestors had to avoid danger in order to survive. In their study, De Backer and Fisher suggest that mass media companies promote headlines that appeal to these adaptive processes (De Backer & Fisher, 2012). An emotional story about surviving a near death experience will garner more attention from consumers than a story about celebrities' successes.

In their study, Rozin and Royzman (2001) propose that negative information will be remembered better than positive information. There is an adaptive theory as to why this might be true. One idea is that negative or threatening situations pose a greater threat to survival than positive information pose a greater improvement. In other words,

threatening situations pose more harm than good situations pose a benefit. Avoiding death is the number one adaptive problem that humans face. Therefore, information avoiding death or harm or negative situations takes precedence from an adaptive perspective.

While there are many theories about what purposes gossip may serve, there is still relatively little empirical evidence devoted to studying the effects of gossip specifically. Foster calls for more study in hopes to find more explanations about how gossip is "generated, perceived, processed, and used," (Foster, 2004, pg. 74). The goal of this research is to answer the call put forth by Foster and study whether gossip is processed and remembered better than scientific information. The present experiment was designed after looking at the possible functions of gossip proposed in the previous research.

Present Experiment

The purpose of the present research is to test whether gossip-related information is retained at higher rates than scientific information. Participants read nine articles, separated into three categories that were of comparable length, clarity, and produced between the months of March and May 2016, approximately a year before the study took place. Three types of articles were chosen for this study. The first category of articles was comprised of scientific information. These articles related to familiar American products, cities, or topics to serve as comparisons for the memory retention rates of the gossip articles. The other two types of articles chosen were non-celebrity gossip and celebrity gossip. The idea behind choosing non-celebrity gossip was to test whether or not the familiarity with the subject could play a role in memory.

When choosing the non-celebrity gossip articles, one of the articles conveyed a story of a dangerous situation an individual faced with a shark-which could relate back to the adaptive function that researchers believe memory serves. The other two non-celebrity gossip articles related to the Strategy-Learning and Reputation Gossip proposed by De Backer and Fisher (2012). These two stories offer examples of behaviors that could lead to group exclusion or result in a tarnished reputation due to strange behavior and offer an opportunity for the reader to learn something about social norms. The three celebrity gossip articles could function in the same way. All three celebrity articles were chosen because they all depicted stories of celebrities behaving strangely or breaking some sort of social behavior.

At the end of each article, participants were asked to rate the articles on a scale of 1-10 based on their personal opinion of first, how relevant they feel the article content was to their life and second, how interesting they found the article. After a one-week delay, participants completed an 18-question memory test about the articles they read the week before. There were two questions per article and all were in a true/false or multiple-choice format. It is hypothesized that articles participants found more interesting than relevant will be remembered better than those articles participants found personally relevant.

Uniquely, this study featured a much longer delay period than most memory studies. Typically, a memory study has the presentation of the information, a short distractor task that lasts between one and ten minutes, and then a surprise recall test to analyze the memory retention rates. This study had a weeklong delay, which was followed by the recall test. Participants were not told they would be given a memory test,

but instead they were informed only that there would be a second part of the study to complete. This delay was designed into the study to see if the memory of the gossip would persist for a week after the initial exchange of information and test memory on a longer-term.

Methods

Part 1

Participants

Sixty-nine psychology students were self-selected for this study. They were granted partial course credit or extra credit for their participation. This study was posted on the university Psychology study website that is used to recruit participants. The title of this study was "Spring Memory Retention Rates: Part 1." A description of the study and requirements was listed below and participants could sign-up online and complete the study at any time before the deadline posted. This study was conducted online and could be completed anywhere that participants had Internet access. After starting the study, the first page was the consent agreement and participants could not move to the next page until they checked the box that indicated their informed consent. Participants' responses were only recorded in the final analysis if they successfully completed both parts. Any participants who did not follow instructions or left answers blank did not have their responses recorded in the final data.

Materials and Procedures

For the first part of the study, the students read nine articles. The articles were chosen by the researchers and deemed to fit into three categories. Three articles were

categorized as "scientific;" three were categorized as "non-celebrity gossip;" and three were categorized as "celebrity gossip." The participants were not alerted as to categorization or the ultimate hypothesis about which articles will be better remembered. At the bottom of each article, the following instructions were presented, "Please rate the article on a scale of 1-10 based on:" and then there were two separate requests. The first said "your opinion as to how relevant this article is to your life," and the second said "your opinion as to how interesting this article is." Participants would enter a value between 1 and 10 and then click the "Next" arrow to move on to the next article. They repeated these ratings for all nine articles present. The last page asked for students to enter their University email address in order to receive the invitation code to complete the second half of the study. Answers were not connected to their email addresses in order to maintain anonymity.

Part 2

Participants

The same sixty-nine participants from the first part of the study were the same for part two. One week after they completed the first part of the study, they were sent a code to the email they provided in the first study. At the beginning of the study, they were asked to re-enter their email as to ensure no participants repeated the study more than once. They again saw the same consent form from the first study and had to check a box indicating consent before being allowed to move forward.

Materials and Procedures

They were prompted to enter the invitation code before they could proceed to the first question. After correctly entering the code, then they could proceed to the first question. There were 18 questions about the articles they read and were in a true/false or multiple-choice format. The questions and the answer choices were both randomized for each participant. There was one question per page. After they finished, their responses were recorded. The participants were not told whether their answers were correct or not.

Results

In the present experiment, participants read nine paragraphs, three of which included scientific information, three of which included gossip about non-celebrities, and three of which comprised celebrity gossip. After reading the paragraphs, participants rated them on two different measures. First, participants rated how relevant each topic was to them. A repeated measures analysis of variance (ANOVA) indicated that some topics were rated as more relevant to participants' lives than others, $F (2, 136) = 31.80$, $MSe = 1.74$, $p < .0001$, $\eta_p^2 = .32$. Two-tailed planned comparisons revealed that participants rated the scientific passages as more relevant to their lives than either the gossip passages about non-celebrities, $F (1, 68) = 40.04$, $MSe = 1.82$, $p < .0001$, $\eta_p^2 = .37$ or the gossip passages about celebrities, $F (1, 68) = 35.85$, $MSe = 2.57$, $p < .0001$, $\eta_p^2 = .35$. However, the ratings concerning both types of gossip (celebrity and non-celebrity) were statistically equivalent, $F (1, 68) = 1.32$, $MSe = 0.83$, $p > .05$, $\eta_p^2 = .02$.

Thus, overall, the science-based information was deemed more relevant than either type of gossip. In addition, participants were asked to rate the interest level of each type of paragraph. Interestingly, the mean rating for celebrity gossip appeared to be

lower, numerically, than for the other types of information. However, a repeated measures ANOVA revealed no statistically significant differences in interest ratings as a function of the type of information included in the paragraphs, $F(2, 134) = 2.17$, MSe = 2.54, $p > .05$, $\eta_p^2 = .03$.

One week after reading and rating the paragraphs for both their relevance and interest level, participants completed a multiple-choice test, which included two questions about each paragraph. The proportion of questions that participants answered correctly are presented in Figure 1 as a function of the type of information included in the paragraph (celebrity gossip, non-celebrity gossip, and scientific information). A repeated measures ANOVA revealed that participants' ability to correctly answer questions about the paragraphs differed as a function of the type of paragraph, $F(2, 134) = 6.94$, MSe = 0.04, $p < .01$, $\eta_p^2 = .09$.

Two-tailed planned comparisons revealed that participants remembered more information from the celebrity gossip paragraphs than from either the non-celebrity gossip paragraphs, $F(1, 67) = 8.44$, MSe = 0.04, $p < .01$, $\eta_p^2 = .11$, or the science based paragraphs, $F(1, 68) = 11.43$, MSe = 0.04, $p < .01$, $\eta_p^2 = .14$. However, participants remembered a statistically equivalent amount of information from both the non-celebrity gossip paragraphs and the scientific paragraphs, $F(1, 67) = 0.18$, MSe = 0.04, $p > .05$, $\eta_p^2 = .003$. Thus, even though science based information was rated as the most relevant type of information, in addition to the fact that there were no differences observed in terms of interest, celebrity gossip was better remembered than any other type of information.

Discussion

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As previously defined, gossip is the exchange of information between two parties about a third party without the third party being present. However, the present data shows that some basic level of knowledge about the person being gossiped about is important for memory retention. This was reflected in the results regarding both the scientific and the non-celebrity gossip articles. While the scientific articles were rated the most relevant to participants' lives, the data shows that this did not lead to higher rates of memory retention. The celebrity and non-celebrity gossip articles relevance ratings were statistically equivalent.

In regards to how interesting the participants found the articles, there seemed to be no significant difference in interest level among the three types. However, regardless of the interest level being the same and the scientific articles being deemed the most relevant to participants' lives, celebrity gossip was the best remembered. It was hypothesized that gossip would be remembered better than the scientific articles because they would be deemed more interesting. However, the data indicates that this is not the case. The most interesting distinction is between the celebrity and non-celebrity gossip. The fact that celebrity gossip was remembered at higher rates indicates that participants were most likely at least somewhat familiar with the celebrities who were the subjects of the articles and that this familiarity played a role in memory retention.

As previous memory research has indicated, language and gossip have evolved to serve social functions. The exchange of gossip between two parties works to facilitate bonding. It would appear that the knowledge of both parties about the third party does play a significant role. In the present experiment, the fact that the celebrity gossip related to known celebrities would appear to serve a greater purpose in social bonding and

cohesion than both the scientific information and the non-celebrity gossip. Retaining information about a party that is unknown to the participant and, most likely, to their social group would not be as functionally useful as information about a known party. In conclusion, the memory retention rates of celebrity gossip appear to be higher than both scientific and non-celebrity gossip, even after a week delay.

Ultimately, this study improves upon previous research in the field. The study of how gossip is remembered and retained is relatively unexplored. While there are suggestions as to what functions gossip serves, there has been little to no attempt to understand how gossip is processed and retained. Until the present study, it was not known whether or not gossip would be better remembered than other types of information. The week delay producing these higher rates of retention provide compelling evidence as to the resilience of the information. For future research, testing memory after a longer interval of time, perhaps over months or years, could provide evidence as to the strength of this memory retention of gossip.

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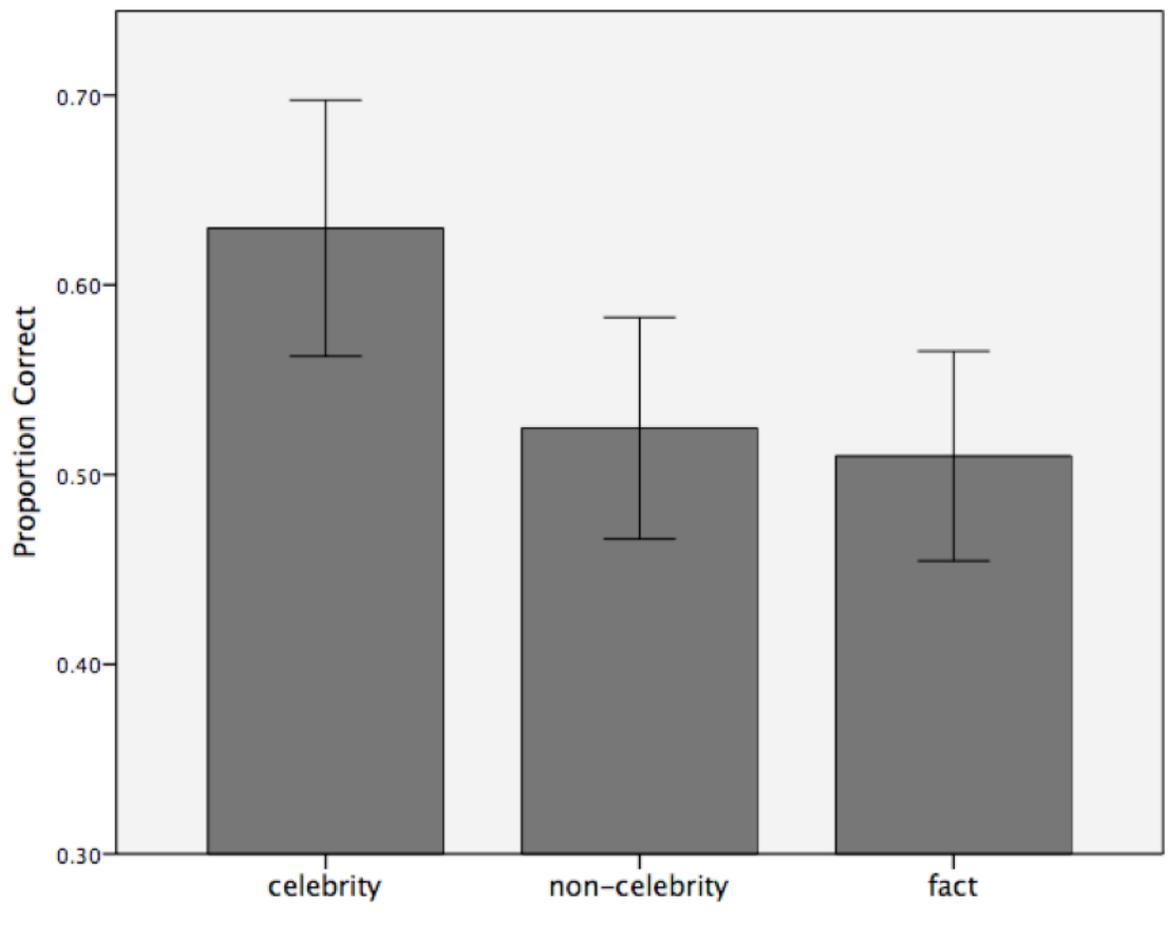
Appendix A

Figure 1. Proportion of correct responses as a function of paragraph type (celebrity gossip, non-celebrity gossip, fact based information). Error bars indicate 95% confidence intervals.

Appendix B

This appendix includes all nine articles in the form they appeared in Part 1 of the study. They were not identified as to what their classification was (celebrity, non-celebrity, and scientific) and they appeared in a randomized order for each participant. References are included below each article and in the reference page.

Celebrity Article #1

In an appearance on *Conan* Monday, Zooey Deschanel talked about the time a Kardashian Kameo threatened to derail a guest appearance by Prince on her show *New Girl*. According to Deschanel, Prince's camp demanded that no Kardashians appear in the episode that was to include a number of celebrities in a Los Angeles party scene. But some Kardashians had already filmed the episode. So, as not to offend Prince, the crew *burned* all the evidence that any Kardashian had been present.

"I get there the day Prince is supposed to arrive and I'm studying my lines and one of the PAs comes in and she's like, 'I need to take all of the sides, the scripts,'" Deschanel said. "I'm like, 'What's going on?' I walk outside, and she has, like, a bonfire. She's burning all the scripts and the call sheets." "I felt so bad because obviously everyone had gone out of their way to be there on that day, but Prince was running the show," Deschanel said.

Source:
Killoran, E. (2016, May 10). Zooey Deschanel Reveals Just How Much Prince Hated The

Kardashians. Retrieved May 04, 2017.

Celebrity Article #2

Back in February, Khloé Kardashian posted a gym selfie on Instagram only to be slammed by critics who accused her for a bad Photoshop job. As you may recall, Koko did some light retouching to a part of her thigh, which caused the doorframe behind her to bend a little. She later deleted the photo and shared an "OG shot," writing "If only hatin burned calories how dope yall would be."

On Monday, Koko took to her app and website to explain why she turns to Photoshop before sharing photos of her legs. According to Khloé, a car accident from when she was 16 has left her with multiple leg surgeries, which is why she's often spotted with a knee brace when she works out. "Whenever I post a picture of my legs on Instagram, everyone comments on how f----- up my knees look," she writes. "It's because I've had reconstructive surgery, you a-------!" As Khloé explains, her right leg is 1.5 inches thinner than her left because her muscles never fully recovered from the accident and

surgeries.

"It's funny because everyone made a big stink about this Instagram photo below because I Photoshopped it. Yes, I did Photoshop it, but I was trying to make my thinner leg look bigger to match my other leg!!! All I want are big, thick thighs and I hate how skinny my legs are."

Source:
Truong, P. (2017, January 06). Khloe Kardashian's Photoshop Fail, Explained. Retrieved

May 04, 2017.

Celebrity Article #3

A California man filed a lawsuit Monday accusing Jay Z and Kanye West of lying to millions of fans by promising exclusive access to West's latest album on music streaming service Tidal, only for it to later be for sale elsewhere.

Jay Z's company S. Carter Enterprises launched Tidal in 2015, touting it as more artist-friendly and providing higher quality audio streaming than competitors. While West was promoting his upcoming album, he tweeted to his 22 million followers that it would only be available on Tidal. He also owns a stake in the company.

According to the lawsuit's complaint, Justin Baker-Rhett immediately downloaded the Tidal app and provided his personal and payment information. "Baker-Rhett subscribed to Tidal specifically because he was misled into believing that it was the only music platform on which The Life of Pablo album would ever be available," the complaint said. Baker-Rhett was apparently not alone, the lawsuit alleges. Tidal's subscribers jumped from around 1 million to 3 million after the release of West's album. Baker-Rhett and his attorneys are seeking class action status so that the suit can represent anyone who signed up for the service solely for West's album.

About a month and a half later, West announced that The Life of Pablo would be available for purchase on his website as well as through streaming services including Apple Music and Spotify. In the complaint, his lawyers argue that West and SCE Enterprises violated fair business practices and defrauded consumers because they knew the album would not remain an exclusive on Tidal.

"Defendants knew that consumers would subscribe to Tidal only to get access to the new album, and in fact promoted that very fact," the complaint said, pointing to a Tidal retweet from February. West and S. Carter Enterprises have not yet responded to the complaint.

Source:

Koerner, C. (2016, April 18). Kanye West and Jay Z Sued Over Claim "Pablo" Was

Tidal Exclusive. Retrieved May 04, 2017.

Non-Celebrity Gossip Article #1

This is Maximo Trinidad, who lives in Port Saint Lucie in South Florida. On Thursday, Trinidad decided to go paddleboarding during his lunch break at a popular surf spot called Corners in the Palm Beach area. The afternoon seemed chill enough, as seen by the video Trinidad recorded from a camera attached to his board. But then, Trinidad's board collided with a spinner shark, sending him careening into the water! He resurfaced seconds later, shouting "Holy s---!" as he got back on his board. In the video he posted to YouTube, Trinidad called the experience "priceless" and said that it made for an awesome day. "I wasn't even scared," he told ABC News.

Source:
Griffin, T. (2016, April 09). A Man in Florida Crashed His Paddleboard Into a Shark.

Retrieved May 04, 2017.

Non-Celebrity Gossip Article #2

Chrissy Ganci a 21 year old student had never had luck in the dating department. She decided to join Bumble a few months ago. She matched with imgur user msang12321. Chrissy messaged him on Christmas and according to her "things escalated from there." Apparently he doesn't know how to talk to girls. So he decided to send Chrissy daily panda facts. Chrissy did not keep track of how many days she had been receiving panda facts but she knew it had been a long time.

When asked if they talked about anything other than panda facts Chrissy said, "We never talked about anything else! He would send a fact and I would respond and then nothing until the next day!" Chrissy had hoped, "that after the 100 day mark that he would ask me about myself, but that was it." She heard about the "100 Days of Panda Facts" viral story from a friend from high school and has confirmed that she was the girl receiving all those panda facts.

In the end Chrissy was not asked out by Michael.

Source:
M. (2016, April 09). Community Post: Pretty Girl Receives Panda Facts For 100 Days on

Bumble. Retrieved May 04, 2017.

Non-Celebrity Gossip Article #3

Tinder is throwing its support behind a University of Nebraska Omaha junior who quit her sorority after it moved to expel her for displaying the sorority's letters in her Tinder profile photo. Tinder is giving the junior, Shannon Workman, a full year's scholarship that can be used to cover costs of her senior year.

Workman, formerly of the Chi Omega sorority, walked out of a meeting with the sorority's executive board where she was told her Tinder photo violated the sorority's "Human Dignity" rule. In the photo, Workman sports a shirt with the Chi Omega letters and text: "Sweet Home Chi Omega." That prompted the sorority to begin the "membership revocation" process, which Workman declined to participate in. "I'm never coming back," she told the board.

Tinder is also offering Workman a paid internship, Rad said. "It's the first time we reached out to someone whose story inspired us and asked them to be part of the team," he said. "Her actions showed a depth of leadership and courage that is admirable and something we value as part of our company culture. We always want to stand up for our users who stand up for us."

As for the internship, Workman said she's a fan of California, where Tinder is based, and is intrigued by what the company is offering, though she hasn't yet decided whether to take the offer. "I'm excited to learn more about it."

Shannon Workman was a member of which sorority that threatened to kick her out because she wore her letters on a dating app?

Tinder offered Shannon Workman a million dollars for standing up for herself to her sorority board.

Source:
Kantrowitz, A. (2016, April 18). Tinder Hands Scholarship To Woman Pushed To Leave

　　　　Sorority For Profile Pic. Retrieved May 04, 2017.

Scientific Article #1

From allergies to insomnia, there's a pill for just about every problem. The problem is, those pills often come with a lengthy list of potential side effects.
And in the quest to cure what ails us as quickly as possible, those warnings are too often overlooked.

A new study, published Monday, offers the most definite proof yet of what scientists have known for at least a decade: that anticholinergic drugs (PDF) are linked with cognitive impairment and an increased risk of dementia.

Though you may have never heard of this class of drug, you've certainly heard of the medications themselves, including *Benadryl*, *Demerol*, *Dimetapp*, *Dramamine*, *Paxil*, *Unisom* and *VESIcare*. They are sold over the counter and by prescription as sleep aids and for chronic diseases including hypertension, cardiovascular disease and chronic obstructive pulmonary disease (COPD).

The new study is the first to examine the physical changes that serve as the catalyst for cognitive decline. Using brain imaging techniques, researchers at the Indiana University School of Medicine found (PDF) lower metabolism and reduced brain sizes among study participants taking anticholinergic drugs.

"These findings provide us with a much better understanding of how this class of drugs may act upon the brain in ways that might raise the risk of cognitive impairment and dementia," said Shannon Risacher, an assistant professor of radiology and imaging sciences…

Source:
CNN Wire. (2016, April 19). These common over-the-counter drugs can hurt your brain.

Retrieved May 04, 2017.

Scientific Article #2

If you're like most people in North America, you probably spend most of your time indoors. Leave home in the morning, drive to work, stay in your cube all day, head home again. Ninety percent of our lives are spent inside a built environment of some kind – ones that we share with millions of invisible microbes.

Scientists increasingly recognize that rooms and buildings have their own microbiomes, and that those microbial roommates may affect the health of human inhabitants. Those microbes vary depending on what city you're in, according to a study published Tuesday.

The researchers looked at what drives the composition of microbes inside nine different offices across three cities. Gregory Caporaso and his team at Northern Arizona University, where he studies microbiomes as an assistant professor in the Department of Biological Sciences, collected samples in offices in Flagstaff, Ariz., San Diego and Toronto, chosen for their varied climates. Collection plates were covered with materials such as carpet, drywall and ceiling tile. They were then installed on the floors, walls and ceilings of offices. The researchers collected samples in four six-week periods over a year.

In all nine offices, human skin bacteria accounted for 25 to 30 percent of the office microbial communities, but the largest numbers looked like microbes that also live outdoors. And it turned out that each city has a unique, city-specific microbial signature. Plates from offices in the same city were more similar to each other than those from the other cities. They're not sure exactly why that would be, but they suspect that microbes

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migrate inside on people's shoes and in air circulated through the ventilation system….

Source:
Du, K. (2016, April 19). Your Invisible Neighbors: Each City Has Unique Microbes.

Retrieved May 04, 2017.

Scientific Article #3

Prepare for prettier produce, people. In the future, you may notice that your white button mushrooms stay fresh-looking longer and take more time to turn brown. That's because last week, the U.S. Department of Agriculture confirmed it will not regulate the sale of white button mushrooms that have been genetically altered using a technique called CRISPR. The Washington Post reports this marks the first time a CRISPR-altered food is on the path to being sold to and eaten by the public.

The CRISPR technique edits the mushroom's DNA, allowing it to resist bruising and browning over time in a way that other mushrooms can't. Because altering the mushroom doesn't include introducing foreign DNA from other organisms — its own browning enzyme is simply "turned off" — it isn't subject to the USDA's standard regulations on genetically modified foods.

When used correctly, CRISPR could go far beyond a prettier box of fungus. The uber-targeted technique allows scientists to cheaply and easily adjust a crop's own DNA, thereby possibly creating foods like drought-resistant corn or healthier tomatoes or foods that don't require pesticides during production. It can theoretically make crops that resist disease, harsh conditions and climate change, which as previously reported by The Huffington Post could help majorly curb world hunger by providing more usable food for the planet.

In other words, CRISPR could be the pathway to cheaper, healthier, more abundant crops for all. The new white button mushrooms in particular could help reduce waste because fewer would be bruised in production, and consumers would be able to keep them for use — and out of the trash can — for longer periods of time.

Source:
Strutner, S. (2016, April 19). This Tiny Mushroom Could Pave The Way To Curbing

World Hunger. Retrieved May 04, 2017.

Appendix C

This appendix includes all questions participants saw in Part 2 of the experiment.

Questions and answer choices were randomized between participants.

Both Questions Related to Celebrity Gossip Article #1:

Which star was making a guest appearance on *New Girl* and did not want to work with the Kardashians?
- Michael Jackson
- David Bowie
- Prince (correct answer)
- Cher

The crew did what to all call sheets and scripts that showed the Kardashians had filmed appearances for a specific episode of *New Girl*?
- Buried them
- Burned them (correct answer)
- Shred them
- Hid them

Both Questions Related to Celebrity Gossip Article #2:

Khloé Kardashian photoshopped which part of her body?

- Chest
- Stomach
- Butt
- Thighs (correct answer)

What was Khloé Kardashian's reasoning for photoshopping her Instagram photo?

- Deformity from a car accident ◯ (correct answer)
- A birth mark
- Unflattering angle
- Weight gain

Both Questions Related to Celebrity Gossip Article #3:

Dr. Dre is the owner of Tidal who is being sued over the release of Kanye West's album, The Life of Pablo.

- True
- False (correct answer)

Kanye West stated his album would only be sold on which music streaming service?

- iTunes
- Spotify
- Tidal (correct answer)
- Beats Music

Both Questions Related to Non-Celebrity Gossip Article #1:

Maximo Trinidad was doing what water activity on his lunch break?
- Surfing
- Paddleboarding (correct answer)
- Swimming
- Sailing

Trinidad hit what with in the water?
- A shark (correct answer)
- A boat
- A killer whale
- A stingray

Both Questions Related to Non-Celebrity Gossip Article #2:

Chrissy Ganci received facts about what on Bumble by a user she matched with?
- Puppies
- Dolphins
- Kittens
- Pandas (correct answer)

For how many days did Chrissy Ganci received a daily animal fact on Bumble?
- 30 days
- 6 months
- 100 days (correct answer)
- One year

Both Questions Related to Non-Celebrity Gossip Article #3:

Shannon Workman was a member of which sorority that threatened to kick her out because she wore her letters on a dating app?
- Tri Delta
- Chi Omega (correct answer)
- Pi Beta Phi
- Alpha phi

Tinder offered Shannon Workman a million dollars for standing up for herself to her sorority board.
- True
- False (correct answer)

Both Questions Related to Scientific Article #1:

One of the drugs studied by scientists to research the physical effect on patients' brains was:
- Tylenol
- Benadryl (correct answer)
- Advil
- Pepto Bismol

Scientists have found that certain over-the-counter drugs can lead to a greater risk for:
- Cancer
- Brain tumor
- Dimentia (correct answer)
- The flu

Both Questions Related to Scientific Article #2:

Microbes in buildings and rooms can potentially cause harm to humans' health:
- True (correct answer)
- False

Scientists have found that microbes can be unique to:
- Types of materials
- Cities (correct answer)
- People
- Computers

Both Questions Related to Scientific Article #3:

The new technique approved by the U.S. Department of Agriculture does what for produce:
- Resists browning or bruising (correct answer)
- Grow larger
- Grow more quickly
- Taste better

The U.S. Department of Agriculture has recently approved the use of which technique in food preservation:
- CRISPR (correct answer)
- FRESHR
- SHANK3
- TALEN