2011-07-14

A Content Analysis of Exemplars in Weekly U.S. News Magazines

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A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Arts

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August 2011

ABSTRACT

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This study was designed to research whether the conditions that give rise to exemplar effects in experimental designs are present in the real world, specifically by conducting a comprehensive content analysis of news articles in weekly U.S. news magazines.

Exemplification studies the relationship between examples and the larger population they represent, and how examples effect consumer's perceptions and behaviors (Zillmann & Brosius, 2000). In experimental design several independent variables have been tested and have shown that people's perceptions fall largely in line with the emphasis of the exemplars presented.

A stratified random sample of magazines, representative of a whole year, was obtained for TIME and *Newsweek*. An intercoder reliability test was performed with 11% of the sample. Eighty-seven articles met the coding requirements and generated 873 exemplars.

This research developed a significant number of operational definitions and procedures for content analysis of exemplars. A discussion of issues arising from content analysis that were not manifest in experimental designs is presented, such as non-news articles, the presence of bias, and multiple article foci. The concept of primary base rate data, the reasonable reader test, and expanded definitions of visual exemplars are also presented.

Several of the conditions that gave rise to exemplification effects in experimental designs were present. Eighty percent of articles had more exemplars than counterexemplars; Sixteen percent of articles contained perceptually enhanced base rate data; Ninety percent of articles contained no ratio data—meaning a judgment of how representative the exemplars were was not possible. The remaining 10% were considered to be non-representative.

Some elements considered to give exemplars more influence were not common in weekly U.S. news magazine articles. Direct quotes were used in only 27% of exemplars, with anecdotes comprising 51%. Similarly, the majority of exemplars (52%) came from non-attributed sources or official reports. Vivid emotion was present in only 2% of exemplars.

In addition, 31% of articles were judged to be about a single exemplar, with no counterexemplars present. The most common type of image used were innocuous, with threatening images used the least. Fifty-six percent of exemplar sources were not attributed to a gender, 33% of exemplar sources were male and 7% were female. Similarly, 54% of exemplar subjects did not specify a gender, while 25% were about males and 6% were about females.

Keywords: Exemplification, exemplars, visual exemplars, exemplar source, exemplar subject, exemplar gender, content analysis, U.S. News Magazines, TIME, *Newsweek*.

ACKNOWLEDGEMENTS

With thanks to Terry and Enid Hubbard (my parents), to Bruce and Christine Olsen, to Keith Atkinson, Dr. Kevin Stoker, and to Jeni Johnson—without their counsel I would not have begun my graduate work.

And to my committee, Doctors Davies, Callister and Wilson—without their counsel I would not have finished it.

The fact I finished in a timely manner is in no small part due to the efforts of my unsuspecting intercoder Maurianne Dunn, who realized too late that both I and my research were more work than expected, and who I thank.

And finally, a respectful nod to my fellow graduate school inmates who are all kinds of awesome. Sharing the tough made it easier. We are so the class to beat.

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Chapter I: Introduction

A significant and ongoing area of communications study is based around how people's attitudes are formed and adjusted by new information. Exemplification (Zillmann & Brosius, 2000) studies the relationship between examples and the larger population they represent, and how examples effect consumer's perceptions and behaviors. It specifically focuses on how people's perceptions of incidence rates relate to actual incidence rates, the perception of opportunities and risks to others, and the perception of opportunities and risk to self. It has been most commonly applied to news media where, while the range of topics is much varied, the format of how information is presented follows set patterns (Zillmann, Gibson, Sundar & Perkins jnr., 1996).

Exemplars are defined in terms of narrative illustrations of a subject. They are descriptions of single incidents that share pertinent properties of a larger group and thus represent them. In news they comprise the interviews, quotes, paraphrased stories and anecdotes from eyewitnesses or experts that illustrate the topic, and generally serve to make the abstract comprehensible. Visual elements (photos and footage) of people affected by events are also included in exemplification research (Arpan, 2009; Zillmann, Gibson, & Sargent, 1999).

Research Overview

Brosius and Bathlet (1994) concluded after a series of experiments that "the perception of a problem is influenced primarily by the quality and distribution of exemplars" (p. 48), and suggested that qualitative information (commonly called base rate information in the literature) is superseded by exemplar information. In 1997 Perry and Gonzenbach showed that exemplars had significant ability to influence a change in people's individual opinions and what they thought national opinion was.

In 1999 Zillmann noted that exemplification was a “ubiquitous phenomenon [that has] received little attention in communication research” (abstract p. 1). Graber’s earlier study (1990) on learning from television news observed that “the pictures on television news contain ample information, but this information does not supply the kind of factual learning that social scientists usually measure” (p. 137).

Most of the research to date has been experimental in nature, manipulating specific factors within exemplars and recording subject’s reactions to them. The literature overwhelmingly reports that exemplars are more influential than base rate information as far as perception forming is concerned.

Exemplar research over the last 20 years falls broadly into the following areas of focus:

- Base rate vs. exemplar effects on perception (Gibson & Zillmann, 1994; Zillmann et al., 1996)
- Judgment forming (the influence of exemplars) (Gibson & Zillmann, 1994; Zillmann et al., 1996)
- Effects of the number of exemplars, proportion, and distribution (representative, balanced, non-representative) (Brosius & Bathelt, 1994; Zillman, Perkins, jnr., & Sundar, 1992)
- Effects of visual exemplars (Gibson & Zillmann, 2000; Zillmann & Gan, 1996; Zillmann, Gibson, & Sargent, 1999)
- Emotional vs. pallid exemplars (Aust & Zillmann, 1996; Gibson & Zillmann, 1994)
- Effects of salient and similar exemplars (Andsager, Bemker, Choi, & Torwel, 2006; Geller, 2005)

- Effects of exemplar influence over time (most studies account for this on an immediate/short term basis)

The exemplification phenomenon is well established in the experimental environment, but only the more recent exemplification studies have incorporated real-world elements, so the experiments have preceded any significant real-world analysis. If the same conditions exist in the real-world that lead to exemplar effects in the experimental setting, an argument can be made that people's attitudes to social issues are skewed as a result. If different conditions exist in the real-world than have done in the experimental design to date, an argument can be made that the research to date is flawed in that it does not test actual conditions. The broad research question for this thesis then is: How are exemplars used in weekly U.S. news magazines? And a content analysis is proposed to examine that question.

Chapter II: Literature Review

Related Theories

The family of theories under which this research is conducted is broadly covered by cultivation theory, the study of the aggregate effects of media exposure (Gerbner, 1969; Gerbner & Gross , 1976; Gerbner, Gross, Morgan, & Signorielli, 1986), with priming, framing and exemplification theories each examining more specific areas. Priming (Iyengar, Peters, & Kinder, 1982) examines how recency of messaging influences actions, especially how we judge political figures and policies; framing (Goffman, 1974) examines how media constructs messages to imply a certain viewpoint. Exemplification, the subject of the current study, examines the influence of narrative elements within news content.

Availability and accessibility heuristics. Exemplar effects are manifest, at least in part, because of how we process and remember information. The availability heuristic (Tversky & Kahneman, 1973) posits that we shape our view of reality based on what we can remember from what memories are readily available to us. Our actions are based on our opinions and attitudes, our opinions and attitudes are formed in large part from our memories. When this heuristic is used, our opinions on any new information frequency—such as severity and personal involvement of the event depicted—are influenced by the existing information already stored in our memories.

The availability heuristic is not concerned with frequency and recency but instead examines how readily available memories are. The related heuristic of accessibility however, addresses both the frequency and recency of the information we are exposed to (Fazio, 2000) and suggests that the more frequently information nodes in our memories are activated, the easier it is to access and recall related information. The same is true if information nodes are activated recently.

Our availability and accessibility heuristics are derived from personal experience and act as shortcuts in learning and social interactions. In a world with ever more messaging and a multiplicity of communication channels, it is our ability to process heuristically that enables us to operate efficiently. We process peripherally the world around us, almost subconsciously identifying that which needs greater attention and that which needs less. For example, when we are learning to drive the process receives our full attention; as the knowledge and application of how to drive becomes more available and accessible we give less conscious thought to driving while we do it. Soon enough we can listen to music, carry on conversations and become lost in thought while we drive.

Busselle and Shrum (2003) illustrated that people store in their memory both personal experience and media illustrations. Events that more commonly occur in real life (e.g., a date, a highway accident) were more commonly recalled from personal experience; events that occur rarely in a person's life, if at all (e.g., murder, a drug bust) were more commonly recalled as media experiences. Their findings support the conclusions of Wyer and Srull (1989) that when we cognitively make social judgments using the information in our memories, we tend to disproportionately use whatever information is most accessible.

The impact any given news story has on an individual may not be apparent to them. Nisbett and Wilson (1977) illustrated that people often misjudge the impact of stimulus factors on their attitudes—either underestimating factors that did have an influence, or overestimating factors that did not (Goethals & Reckman, 1973).

New information we receive is seen through the existing memories and opinions we already have. We use our memories and past experiences to develop social behaviors and opinions about how the world around us exists.

Representativeness. The representative heuristic (Tversky & Kahneman, 1982) posits that we compare new messages against a sampling of related ones already in our memories.

In the field of psychology, where the ideas of representative and availability heuristics were developed, research was conducted into whether subjects took into account the representativeness of a sample before generalizing their opinions. In an experiment which utilized a model that would later become common in exemplification studies (Hamill, Wilson, & Nisbett, 1980), groups of participants were given a news story of a welfare case. Unknown to the participants, they were receiving different versions of the story, each with different types of data. One story contained no statistical data, one had typical data (i.e., data in line with current trends),

and one had atypical data (i.e., data was exaggerated). This data was given as an editor's note either before or after participants read the case study. When surveyed, both the typical and atypical groups were found to have similar inferences about people on welfare—they were all disproportionately negative, and they were all in line with their preexisting attitudes, leading the researchers to note the "failure of the statistical information by itself to have any effect on attitudes" (p. 582). Even when specifically told the examples in the report were not typical, the readers formed their opinions around those examples rather than the contradictory base rate data.

In their discussion of people's willingness to generalize from non-typical examples the authors wonder if it's because so few people are familiar with the rules and dangers associated with sampling that researchers have to be aware of. They note however, that not making any generalizations from the many examples we encounter daily is likely too conservative, resulting in ignorance.

The way that people react to the examples does not take into account factors like representativeness, or ideas researchers are familiar with, such as sample size.

Tversky and Kahneman (1982) defined three aspects of respresentativeness:

1. People judge representativeness with little or no regard to the stated prior probability of an outcome.
2. People are insensitive to sample size and its statistical implications for applying an exemplar to a situation.
3. Respondents inaccurately judge the chance associated with a random process.

After nearly a decade of research into exemplification, Zillmann (1999) composed one of the few papers to discuss the theory rather than describe a specific experiment. It focuses on how

to best use exemplars in an ethical way and concludes that attention needs to be given to representativeness of exemplars used.

Any group of events, people, or items that share specific features fall into a common category. Any exemplar from that category would be representative of the group as a whole. However, no two events are exactly alike, and so to achieve greater representativeness sub groups (defined by more detailed list of common attributes) can be created. The paradox is that while creating a larger number of smaller subsets increases the validity of any exemplar from a subset, that same exemplar becomes less relevant the larger population. Zillmann suggests therefore that “a certain degree of imprecision is unavoidable and also may be immaterial for many practical purposes” (p 74).

In the same paper Zillmann proposes methods of randomizing the available exemplars in order to achieve an accurate representation. In each case he first identifies a set number of attributes that can be expressed in different ways—such as the U.S. Census question on ethnicity. Selective drawing from the population could potentially represent a subset very well but not the population as a whole. More accurate would be either a random sample (drawn from the whole population), a stratified sample (drawn from all identified sub groups), or a proportional sample (drawn from sub groups in proportion to their share of the whole population).

For samples where the population size is not known, or when little is known about its characteristics, Zillmann notes three things (1) Recipients are likely to assume events not identified as unique as representative of a larger population; (2) Conveyors of information should therefore identify any exemplars that are in fact unique; (3) Information conveyors should make clear any lack of knowledge about the exemplar to avoid misinterpretation.

In a clarification article (Zillmann, 2002) noted that while all exemplars describe events, not all events are exemplars. A unique event can represent itself only (e.g., the first moon landing).

Research shows that the natural tendency is to assume the stories we are exposed to are generalizable. Because of this behavior it is important to consider whether the stories are actually representative of the whole population, or whether they represent a more specific group.

Comparing Base Rate Influence and Exemplar Influence

News reports, regardless of topic, contain two types of information, base rate and exemplar (Zillmann et al., 1996). Base rate information is descriptions of events and situations using quantified data—amounts, numbers, percentages. Base rate information can be stated in either a precise or imprecise manner. Precise base rate information is specific/explicit (e.g., 75% of people agree, 18 people were injured), while imprecise/non-explicit uses ambiguous language (e.g., most people agree, several people were injured).

While base rate information is regarded as more accurate, it is not regarded as inherently true (Zillmann, Perkins Jr., & Sundar, 1992). It can be used to imply different things to news consumers. Berger (2001) analyzed how quantitative data is used in news reports of accidents, crime and health. His results showed that worsening trends (such a crime becoming more common) were more often illustrated by frequency data (i.e., a year on year comparison), whereas improving trends were more often illustrated by rate data (i.e., rate per 1,000). For exemplification studies base rate accuracy is not as important as its relationship to the second type of information used in news reports, exemplars.

Statistics and exemplars had been examined prior to the introduction of exemplification as a specific theory, but whereas they were often studied as separate factors exemplification sought to contrast their effect and study their influence on people's perceptions and opinions.

Baesler and Burgoon (1994) conducted one of a few studies suggesting that, over time, statistical information was more persuasive than story information. This study however, did not combine base rate and narrative in the same reading and the authors did note that "when reports are pitted against statistics in the same study, the pattern of findings suggests that report evidence is more persuasive than statistical evidence" (p. 583). They also cite two studies that supported their own findings, and four that found statistical data and story data to be equally persuasive.

The comparative effects of base rate and exemplar information is dependent on a number of factors such as salience of the story to the audience, vividness of language used, and accompanying pictures and graphics. Baesler and Burgoon (1994) varied the number of exemplars and base rate data in their experimental design and concluded that "a statistics laden report was more persuasive than a report containing a single exemplar." (Zillmann & Brosius, 2000, p. 84).

Research by Krupat, Smith, Leach and Jackson in 1997 also illustrated the variable effects of base rate data. Their design presented readers with a negative story—about a fictitious car—that contained either a single exemplar or the results of a thousand person survey (the base rate version). Participants were then given a corrective editorial note claiming misrepresentation, the format of which was the opposite of the story they had just read i.e., the single negative exemplar was refuted with positive base rate information, and the negative base rate survey was refuted with a positive exemplar. Respondents were questioned after reading either just the first story or both.

There was little difference in opinions where only the first story was read. But where both stories were read, the base rate data exerted a greater influence than the exemplar. The exemplars and base rate were not contained within the same story, as they often are with exemplar experimental designs, and it was highlighted to the reader that the stories were in direct opposition, rather than relying on the readers to differentiate that for themselves. These experiments cause Zillmann and Brosius (2000) to conclude that "surely there exist numerous conditions...in which base rates will exert a dominant influence" (p. 86).

Most studies however, illustrate that exemplar information dominates base rate information. This finding is in line with the previously discussed memory heuristics—stories are more colorful and readily retrievable from memory, so have a greater influence. In 1994 Brosius and Bathlet conducted a study that did combine base rate and narrative information in the same story—about public opinion on a social issue. They also varied the accompanying exemplars. Readers were then surveyed on what they thought public opinion of that issue was.

Results of their study indicated that the base rate information had very little effect, whereas exemplars had a strong effect on the perception of what public opinion was. They also had a moderate effect on the opinions of the individuals. The results strongly indicated that reader perceptions were guided by the exemplars more than the base rate information, regardless of whether the exemplars were consistent or not with the base rate. These results were consistent regardless of whether the exemplars were paraphrased or direct quotes, although live interview exemplars had greater influence than reporter summaries (see also Arpan, 2009).

The authors noted the importance of continued study in this area. "If it is so easy to influence recipients' perceptions of problems by the composition of exemplars, the way in which exemplars are put together and distributed should become a matter of concern" (Brosius &

Bathelt, 1994. p. 74-75). It is this “matter of concern” that exemplification studies seek to address.

It is worth looking at an early experimental design in detail as it became a model for much of the future research. Gibson and Zillmann, (1994) sought to examine the reactions to varying levels of exemplar exaggeration. Three news articles were read by 155 subjects who then took a questionnaire designed to record their perceptions about the story. All three stories were made to look as if they had come from regular news sources, but only two of the stories were identical for all readers. The third story, on the rise of carjacking in the United States, was adjusted so there were eight versions. First, they included either precise or imprecise base rate data. Precise data stated specific percentages of carjacking victims that were killed, injured or not hurt; imprecise data used vague language such as *most*, *some, only a few*, and *almost nobody*. Then, for these two versions of the story the exemplars were also adjusted. While all stories contained three exemplars, and all three were relevant to the carjacking theme, the exemplars were adjusted to be either minimally exaggerated (“she walked away without a scratch”); mildly exaggerated (“she walked away with only minor cuts and bruises”); substantially exaggerated (“she suffered a broken arm”); or extremely exaggerated (“[her] head struck the curb and she was killed instantly”).

A provision was incorporated to identify short- and long-term effects of the stories in that the questionnaire was administered immediately to some participants and a week later to the remainder. The questionnaire asked respondents to give their opinions about the problem of carjacking, how many people they thought were hurt in carjackings and to what extent, and to rate aspects of the news story itself (was it informative, accurate etc.).

The results of the study suggested that regardless of whether the base rate information was precise or imprecise, the level of exaggeration of an exemplar was a factor on the reader's perceptions of the issue. Readers of the extremely exaggerated exemplar were more likely to consider carjacking a "serious national problem" than those who read the minimally exaggerated story. There was also a direct correlation between those that read the more extreme exemplars and how violent they thought carjackings were.

The authors concluded therefore that more exaggerated exemplars have a stronger effect, both short- and long-term, than minimally exaggerated exemplars. The level of exaggeration however, did not influence people's views on whether carjacking was a personal threat to them as individuals; they related the examples to the world in general, not to their lives specifically.

The initial experiments into comparing base rate data and exemplars showed that exemplars had a much greater influence on the subjects, whether the exemplars agreed with the base rate data or not. They also showed that generally, people do not consider to what extent exemplars are representative, and that the more exaggerated the exemplar, the greater its influence.

Selective, Blended and Representative Exemplars

The labels "selective", "blended" and "representative" are an important element of exemplification studies and it is worth noting their definitions in detail:

> *Selective* refers to an exemplar distribution that is entirely consistent with the minority of cases that define the focal point of a news story. *Representative* refers to an exemplar distribution that correctly represents the proportions of minority and majority cases in the population. *Blended* refers to an exemplar

> distribution that addresses both minority and majority cases, but does so in a somewhat selective, nonrepresentative fashion. (Zillmann et al., 1996).

A more recent and concise definition came from Lent and Sparks (2009) "The categorization of an exemplar as balanced, representative, or nonrepresentative depends on whether the exemplar accurately approximates measurable aspects of a population it purports to represent" (p. 116).

These categories were identified in the earliest exemplification experiments. Zillmann, Perkins, jnr., and Sundar (1992) presented different versions of a newspaper-type story to different groups of participants and then measured their perceptions of the story issues. The story presented base rate information on the topic of people who regain weight after completing a diet program as well as exemplars varied to match either the selective (entirely consistent with the focus of the story), blended (some additional counterexemplars present) or representative (exemplars and counterexemplars reflect the actual population proportion) category. The exemplars were varied only by the ratio that agreed with the base rate, not by any other measure.

Again, both precise and imprecise base rate versions of the story were used, and participant feedback (an estimation of how many people regain weight after dieting) was either immediate or delayed.

The first resulting observation was that participants that had precise base rate information (which stated that 3% of dieters regained weight) gave more accurate responses in general, an effect that was true over time. However, those that read the selective story (where all exemplars were consistent with the story focus) overestimated the number of weight regainers at 74%—more than double the stated base rate. Exemplification also had a stronger effect immediately afterward than over time.

In this early experiment the influence of base rate data was expected to overpower the influence of exemplars but instead “base rate information proved to be immaterial—it did not prevent the effects of exemplification” (Zillmann & Brosius, 2000, p. 65).

A similar study was conducted (Zillmann et al. 1996) with similar results, the authors noting that “issue perception followed the ratio of suggested exemplars in the distribution” (p. 437). This study however, also included an additional dimension, that of prior beliefs. The effects of exemplars in this study were stable (at least over a two week period), except in the case of well-defined prior beliefs, in which case prior beliefs asserted themselves more quickly.

Brosius & Bathlet (1994) tested different ratios of exemplars. In an article containing four exemplars, the ratios of 3:1, 2:2, and 1:3 were tested. People’s opinions varied in line with the exemplar ratio, if two exemplars were consistent with the base rate and two were not, reader’s opinions reported that half the population shared one view.

According to Zillmann (1999), an exemplar should be representative of the group as a whole, and preferably of a large group. Such an exemplar would not be dependent on individual interpretation.

Public perception is consistent with the ratio of exemplars present. Because of this the traditional “balanced story”, where each side of an issue is equally represented, is a false representation. Instead exemplars should be chosen in as representational a ratio as possible so as to accurately portray the issue.

While proportionately correct representation is the ideal it is often not feasible (Zillmann & Brosius, 2000). The most frequent exemplification then is blended, where counter-exemplars are at least acknowledged. However, in blended exemplification the majority can be underrepresented, or the minority practically ignored. The question becomes do news consumers

finish a news story with the same perceptions about incidence rates, opportunities, and risk from reading a blended story as they would if they read a proportionally correct story?

Emotional Exemplars

Another area on which exemplar studies focus is that of the wording used—pallid or vivid. Nisbett and Ross (1980) state that "information may be described as vivid, that is, likely to attract and hold out attention and to excite the imagination to the extent that it is (a) emotionally interesting, (b) concrete and imagery-provoking, and (c) proximate in a sensory, temporal, or spatial way" (p. 45).

In one study testing this (Aust & Zillmann, 1996), the exemplars were written to be either emotionally vivid or unemotional. Both distress from the story and perception of victimization increased among respondents with the vivid version. The authors observe that exemplars in news stories in general tend to favor the vivid, dramatic, or shocking. Aust observed in a previous study (1993) that exemplars featuring persons who express intense human emotions, hatred or grief in particular, seem to be selected over exemplars featuring persons who respond calmly-and-collectedly to events of interest. More vivid content made the processing of base rate data less likely. Emotionally vivid exemplars then, are more likely to attract our attention and more likely to have a greater impact on us.

Vettehen, Huijten and Peeters (2008) tested the impact of negative images in TV news. They reported that "highly intense and vivid images inhibit the encoding of visual and factual verbal information presented prior to them" (p. 38). They identified seven sensationalist features in news stories such as story topic, and use of camera angles and sound. The seventh feature was the insertion of laypersons commenting on the issue, a feature that falls within the definition of

exemplification. The study focused on the effects of sensationalism, specifically through six measures of how the story made people feel (emotional arousal), and two measures of liking.

Findings indicated that sensationalist stories did increase emotional arousal and, in turn, liking, but only up to a point. Beyond that level, increases in emotional arousal actually decrease the viewer's liking. Weeks after exposure to the stories, factual information and topics were remembered better from the stories without compelling images. To surmise; where present, vivid compelling imagery was remembered better than factual information in our memory; where not present, the factual information is better remembered.

Salience and Similarity of Exemplars

Another factor that has received attention is the effect of more salient exemplars on the consumer. Salience is the perceived importance or relevance of something. If the exemplar is perceived as being important to the reader on a personal basis, does it have more impact on their opinion of the issue? The memory heuristics would posit that a more salient exemplar would be more easily recalled, and therefore a more salient exemplar will have a greater impact on the reader's decisions about the story. In testing salience the independent variables are the characteristics adjusted to be either similar to the recipients or not.

Salience was a dependent variable in a 2002 experiment from Knobloch, Zillmann, Gibson, and Karrh. The study tested student respondents at two schools in two states with a story about a fictitious chigger disease outbreak either occurring geographically near, or far, from the readers. The study found that if the article read was regionally salient, the respondent was more likely to better acquire the base rate data. They also noted that if the reader's level of involvement with the story increased in some way—for example via an expected realization,

high risk, or likelihood of reward—they processed the information more centrally, making it more easily retrievable in the future.

Geller (2005) made geography a salient independent variable in a story involving the spread of a (fictitious) food virus. To test salience the geographic area in the story was manipulated to be either California, or North Carolina (where the test was administered). The results reinforced those of Knobloch et al. (2002) in that the level of exemplar distortion was reflected in people's perceptions of the issue at national and local levels. However, there was no effect at the personal level. It is suggested that this may have been because those of college age (which all the participants were) are less likely to correctly ascertain a risky situation. While there was no statistical relationship between the distortion of the exemplar and the perception of personal risk, readers were more likely to indicate they were at high risk if they read the story where the virus was local to them. Exemplars that are more salient have, in general, a greater impact on our perceptions, though we do not always apply them to ourselves personally.

The mid-nineties experiments performed by Brosius and detailed by Zillmann & Brosius (2000) concluded that "affinity between exemplified persons and recipients does not, in and of itself, enhance the effects of exemplification," (p. 84). However, they do note that the stories used in the experiments were not age specific stories but that the "testimony of young persons and of old persons equally relevant" (p. 78). While salience studies the details of the exemplar, similarity focuses on the characteristics of the individual being exemplified.

Many people model their behavior along the lines of the behaviors of our peer group, as laid out in social cognitive theory (Bandura, 2002). Brosius (1999) used social cognitive theory as a basis to study whether increasing the similarity between the exemplar and the subject increased the persuasive power of the exemplar. His study confirmed that exemplars had

significant impact on a recipient's judgments, but found that increased similarity did not. He concluded therefore that the exemplar effect has causes other than similarity.

Andsager, Bemker, Choir and Torwel (2006) however, performed a study where the human exemplars in a story were intentionally demographically similar to the audience and found that perceived similarity was positively related to message effectiveness.

Arpan's 2009 study was designed to compare the influence of quotes and anecdotes in news stories on perceptions of bias in the story. Their experimental story's base rate information stated that a poll had found that 50% of students blamed fraternities for recent fights between university football teams, and 50% believed it to be other students. Quotes were given from four sources; one of which was a fraternity member. Respondents that were members of fraternities were identified as the partisan group and their responses were compared to those that were not. Among the partisan group, more negative quotes in the story were associated with weaker credibility ratings of the story, even when the ratio of negative to positive quotes was balanced or representative of the base rate.

It seems true that an individual similar to us carries a degree of weight when they are the exemplar, but not to the extent that it replaces our prior attitudes.

Visual Exemplars

Many articles in newspapers and magazines are accompanied by a photograph or graphic. While graphs and charts would present quantified data and fall into the base rate category, photographs provide no such data; but they do provide narrative in the form of still images and are therefore exemplars. Zillmann and Brosius (2000) describe three types of visual exemplar; threatening, innocuous and incidental.

Threatening images are defined as having “powerful effects...that could not have been created by even the most articulate verbal account of the pictures depicted” (p. 99). These are the images that become icons. They can raise public sentiment about a topic (the execution of a Viet Cong guerilla in 1968), even to the point of mobilization of government or other organizations (the images of famine from Africa 1984). But what elevates an image to iconic status is hard to define. Zillmann and Brosius (2000) note that such a label is “usually granted in retrospect,” (p. 99) so it is not easily coded in a content analysis study of recent news such as the one proposed.

While dozens of images appear in news stories every day relatively few achieve iconic status, and in 1999 Zillmann et al. devised an experiment on visual exemplars using the second category of images, innocuous images. Innocuous images are defined as having less power than threatening images but as still exerting influence. For example, images of people laughing on a roller-coaster may not relate to the main focus of a story about roller coaster safety but may leave the reader with the impression that roller coasters are fun.

To examine whether photographic exemplars had the same influence as textual exemplars the standard model of exemplification experiments were adapted to have test stories that featured either no pictures, pictures that exemplified only one side of the issue (non-representative), or two photos exemplifying both sides of the issue (balanced). Just two stories were used, with identical texts—one on the economics of farming, the other on safety at amusement parks.

The questionnaire focused on the subjects’ perceptions about the issues (e.g., how many farmers are wealthy? how many people are hurt on roller coasters?), and perceptions about the story (how informative/important is it?). Those that took the delayed questionnaire were also asked how many images they had seen, and what the images they saw depicted.

For both experiments recall of the number of images and interviews was poor, regardless of which version they saw or when they took the questionnaire. While the subjects' perceptions of how many rich/poor farmers exist did skew slightly depending on which story version they had seen, these differences were not significant among those that took the questionnaire immediately. However, the delayed respondents greatly overestimated the incidence of either rich or poor farmers in line with whether they had seen either the rich image or the poor image.

The combined effects of images and text had previously been verified by Pezdek (1977) who noted that photographs that relate to the text they accompany certainly enhance news recall in general, but that over time, the elements of a text story (e.g., a bird was perched atop the tree) and accompanying pictures (e.g., an eagle perched in a tree) fuses in people's memories to become one fact (an eagle was perched in a tree).

Zillmann and Brosius's third category of pictures are incidental pictures. Incidental images are those taken from archives to illustrate a point but not taken specifically for the story into which they are inserted; they may or may not be accurate. Zillmann and Brosius (2000) use the example of a story about a medical procedure being incorrectly administered, but with stock footage of the procedure being performed correctly. In an experiment designed specifically to test incidental images (Gibson & Zillmann, 2000) a story on Appalachian tick disease was illustrated with pictures of children that were either all white, all black, a balance of both, pictures of ticks, or not illustrated. Ethnicity was not referred to in the text, which was identical in all versions. When respondents were asked to identify the risk of the disease among different ethnicities they did so in correlation with the balance of representation in the photographs, indicating that subconsciously they had applied the pictorial exemplars to the story subject. The

lowest risk estimate came from the readers of the story with no photographs. Again, the greatest distortions in people's perceptions were evident after time had passed.

The same effect was observed in broadcast news (Zillmann & Gan, 1996), although it was not true in the stories with balanced images. The author's overall conclusion was that the considerable impact of pictures accompanying a story is rarely acknowledged and that unbalanced picture reporting can have strong unintended effects on the newspaper readers' perceptions of reality.

Graber (1990) observed that most TV news stories are too short to provide context or explanation. Memory heuristics would suggest exemplars take on the significance that they do because we use them to make up for those shortfalls. Graber also suggested an answer for why atypical illustrations are used by newsmakers and accepted by news consumers: "if the television scenes or objects are familiar, as many of them are, people routinely ignore them" (p. 139). In his research, which ranked types of visual news elements, the least well remembered news images were establishing shots and scenes of everyday life.

Visual exemplars then appear to be just as powerful as those in text, but operate on a more peripheral level and have a greater impact over time.

An issue touched on briefly in the area of visual research is that of selective exposure. Are people attracted to certain stories because of the exemplars present? Assuming that photographic exemplars would affect whether a reader actually stops to read a piece, a study was conducted where readers were allowed to read any article they wanted from a prepared selection and article preferences and reading times were observed (Zillmann, Knobloch & Yu, 2001). Without exception respondents examined the headline and the image before the text. Articles with photographic exemplars, especially agonistic images, increased the likelihood that a story

would be read, and for longer than other articles. Also acquisition of the information from the texts was “markedly facilitated” for the stories with photographs depicting victimization. Online articles including threatening images were also more frequently selected and garnered greater reading time among readers (Knobloch, Hastell, Zillmann & Callison, 2003).

The effects of visual exemplars are in line with text exemplars but with some differences. They are more pronounced over time, they are processed more peripherally, and they attract readers to articles.

Recent Exemplar Research

From the early 1990s through to the mid-2000s the exemplification theory was composed, tested, and firmly established. Most of this however, was done through means of experimental design. In recent years experimental designs have begun to include real-world elements, indicating the beginnings of exemplar research in less-manipulated or non-manipulated environments.

In one of the first exemplar experiments to incorporate a real-world element participants viewed photographic exemplars about the Iraq war proportionate to public opinion of the war as indicated by a Gallup Poll (Lent & Sparks, 2009). The March 2008 Gallup Poll provided the base rate data, which was presented to readers as a graphic and showed 60% disapproved and 40% approved of U.S. initiation of war with Iraq in 2003. The story was presented in an online format (another new element in exemplar research) and participants were instructed to view a 27-picture slide show that linked from the story. Three sets of pictures were used; representative, balanced or nonrepresentative. The research hypothesis—that perception of public opinion would be less accurate within the balanced and nonrepresentative groups—was born out for both groups, the difference between the balanced and representative groups being statistically significant. This led

the authors to suggest that the journalistic goal of balance in a news story is less important than a goal of representativeness.

Another area of study to only recently receive attention is that of what role technology plays in exemplification effects. Westerman, Spence and Lachlan (2009) had participants view a real-world news story about Hurricane Katrina via either HDTV, NTSC or an iPod. The study did not examine which technology had a greater effect, but rather determined which respondents registered a greater spatial effect (i.e., vividly felt "part" of the story) and then examined their perceptions and intended behaviors. Those who had a greater spatial presence were more likely to believe the situation was more severe than it was and were more likely to commit time and/or money to relief efforts.

A 2007 study (Appel & Richter) examined the effects of narratives outside the news environment focusing instead on the effects of fictional narratives seeded with either true, or both true and false facts about real-world topics. Reader's views on the real-world topics were shown to be skewed toward the narrative, even if the facts were false. However, after two weeks, reader's views reverted.

In one study memory heuristics were incorporated as a measureable (Busselle & Shrum 2003). The study explicitly tested the hypothesis that "the ease with which people can recall particular exemplars is related to their level of television viewing," (p. 259) by presenting them with a list of activities, asking them to recall or imagine a similar experience, and recording if the experience they thought of was from real life or media. Events that commonly occur in real life (e.g., highway accident, a date) were more commonly recalled from personal experience, even if those events were frequently viewed on TV; events that occur rarely in real life, if at all (e.g., murder, drug bust) were more commonly recalled as media experiences.

Limon and Kazoleas (2004) studied exemplar effects in the context of critical thinking of the audience and showed that when supporting evidence was exemplar only, critical thinking and the generation of counterarguments was less than if the supporting evidence was statistical only. This does seem counter-intuitive. Statistical data is clearly more scientific and factual than exemplar data, and yet participants were more likely to take issue when statistical data was present. Interestingly, the study showed that exemplar and statistical evidence were equally effective, and they surmised that "persuasion is achieved differently due to the responses individuals have to these two forms of evidence" (p. 291).

The recent research is finding that the exemplification effect is present in different media environments, and is evident in non-manipulated environments and in non-news media settings.

Implications of Exemplar Theory on Journalism

Many people look to news to give an overall picture of the world in which they live. The public rely on news media to convey information about public issues, but to present it in a manner that accurately reflects public opinion and events (Lent & Sparks, 2009).

Exemplification's principle of representation would demand that to be relevant and accurate the exemplars used in news media should be of events and issues that are salient to the largest population. And yet the degree of sensationalist features in both broadcasting and print news has increased because as consumers we are attracted to the unusual **(**Slattery, Doremus, & Marcus, 2001**)**. British satirist Peter Cook once wondered "when did you last read a story in the newspaper—'millions of people get through the day, reasonably successfully, without being run down by a bus.' They don't print that kind of story" (Cook, 1977). It is the atypical and vivid exemplars that are more likely to get our attention (Bar-Hillel & Fischoff, 1981; Newhagen & Reeves, 1992). It is posited that the trend of increased sensationalist stories is due to the

"mechanisms of market-driven journalism" (Vettehen et al. 2008). In order to attract audience share producers of news use content that is atypical and therefore eye-catching. The economic justification for not using the commonplace story is that while non-vivid exemplars may be accurate, they do not appeal to the consumer or sell papers for the distributor.

If a news outlet wishes to continue operations it has to present content that is appealing to the consumer. News organizations then, are caught between reporting stories that are appealing and sellable (atypical stories), and reporting stories that are representative of reality to a large group (typical) but which may be of little interest. Gibson and Zillmann (1998) note the effects of sellable stories: "an atypical, extraordinary, drama-laden example—precisely the type of exemplar often sought by a reporter attempting to make a news story more interesting—would exert a disproportional, distorting influence on the perception of the social phenomenon" (p. 167).

Exemplification theory relates to journalism at the heart of the professions aspirations—the attributes of objectivity, fairness and balance. In many stories alternative points of view are at least acknowledged. The dangers are that a briefly mentioned base rate or counter-exemplar will satisfy the journalist that their story is balanced, or that a journalist over represents a counter-opinion or circumstance to achieve the same end. "Balanced exemplification corresponds with the journalistic norm of objectivity. Exemplars from both sides of an issue are equally distributed (i.e., 50/50) in presentation" (Lent & Sparks, 2009, p. 116). As has been shown, the perceptions the reader leaves with are not accurate if the exemplars used are not representative of the population proportion (Zillmann et al. 1999).

The aggregate of constantly atypical examples can develop a distorted picture to the viewer of what is actually happening on a regular basis (Zillmann et al., 1996) and today's

atypical exemplars will, over time, be perceived as commonplace, so tomorrow's exemplars will need to be even more exaggerated in order to be appealing.

Consumers are drawn to atypical stories and exemplars, so publishers use them to promote sales; however, they also need to be aware of the effects of vivid exemplars in text and audio, as well as accompanying visual exemplars. People perceive as common that which is commonly reported—although what is commonly reported is not necessarily reflective of reality.

As much as the public are at risk from story exaggeration in order to generate sales, they are protected from it by the news industry's reliance on credibility. Another component news outlets rely on to sell their product is credibility. Increased credibility leads to greater reliance on that medium, greater exposure to the medium, and greater susceptibility to effects such as agenda setting (Wanta & Hu, 1994). And yet, any story with more than one viewpoint will, by definition, contain anecdotes considered negative by some of the parties concerned, the publication of which decreases credibility among that group (Arpan, 2009).

Knowing that deliberate skewing of stories would, ultimately, ruin the credibility of the news outlet and its relationship with sources, objectivity is something reporters ostensibly strive for (Fico & Soffin, 1995). In fact Brosius and Bathelt (1994) found among their subjects that while non-representative stories were perceived as credible, representative stories were perceived as more "professional, more informative, and less biased" (p. 58).

But even the most conscientious reporter may unwittingly prepare material that is bias or misleading in some way. Craig (2003) presented case studies of anecdotes (exemplars involving individuals) on prominent health related stories from periods in the 1990s and concluded that even when journalists make attempts to present individual stories in a broader context (as many of them did), most stories still had "ethical lapses" (p. 809). Similarly, Bender, Davenport,

Drager, and Fedler (2005) note that journalists may "unintentionally interview only sources who share their opinions" (p. 597). And those without conscience can deliberately prepare materials that are bias—to either accentuate or downplay an issue—in a manner subtle enough so as not to be noticed by most consumers.

Of some concern is how the elements that make journalism credible are taught. While balance is advocated in texts on news media reporting definitions of what balance is are scarce. Balanced can easily be interpreted to mean giving all sides equal space, attention and exemplars.

In their chapter on ethics and fairness Itule and Anderson (2003) list Charles L. Overby's (chairman and CEO of the Freedom Forum initiative) five components that lead to fairness in reporting. Of balance he said "Many in the public think stories reflect definite points of view. Often, the other side is given scant, secondary attention, far down in the news report." (p. 419).

Overby's quote suggests that giving sides of an issue unequal space is to be avoided. But exemplification studies have shown that the resultant effect of giving equal space presents a distorted impression of reality to the consumer.

Journalists are pulled in different directions by the demands placed on them—vivid stories sell papers, but do not accurately represent the real world; quotations raise credibility but are a common source of bias, which lowers credibility.

According to Zillmann, et al (1996) "distorted exemplification is neither in the public interest nor in the interest of journalists committed to informing the public in the most veridical, accurate way possible," but they note that "nevertheless, the journalistic practice of selective exemplar usage is justifiable to some degree" (p. 428). There are for example, circumstances where using the atypical exemplar is warranted, if not ethically worthy. Aust and Zillmann (1996) acknowledge that "a motive for featuring emotion-laden sound bites of victims, for

instance, might…heighten public concern about the adversities faced by victims in the aftermath of natural disasters in order to generate an outpouring of contributions to humanitarian relief efforts." This author wonders if an atypical exemplar can be justified on the grounds that it helps prevent an undesirable occurrence from becoming commonplace. A story about a single child dying from a defective toy would, hopefully, cause parents to take preventative measures such that that story remains limited to the single occurrence. The exemplar is atypical but has a morally commendable intention.

There are clearly grounds to consider morals and ethics when considering the exemplar content of news. Craig (2003) evaluated the relationship between exemplars and ethics, via analysis of stories from major print and broadcast news organizations on the grounds that "because [exemplification] focuses explicitly on the use and impact of examples, [it] carries particular significance for an ethical analysis of anecdotes" (p. 803).

Anecdotes were defined by Craig as exemplars on an individual level. His ethical framework (Craig, 1999), cites the positives of using anecdotes in newscasts in that they convey details and experiences, but it also advocates that journalists should examine the issue at the organizational, institutional, professional, and social levels. Even if the anecdote is about an individual, for ethical balance, the story's impact on the other levels should be reported. Craig concludes with a discussion on ways in which journalists can select the anecdotes they use, either by using ambiguous exemplars, or citing exemplars from ethical extremes of a topic.

Quotes and citations can be a two-edged sword for journalists. (Gibson & Zillmann, 1998) reported that issue perception was found to be more influenced by citation. Respondents adopted a cited position more than the paraphrased position, especially when one side of the issue was paraphrased and the other cited. Stories with quotes are considered more credible than

those without (Sundar, 1998). Journalists then need quotes for maximum story impact, but quotes can, if negative, lose them credibility among partisan groups (Arpan, 2009).

Berger (2001) found that news stories about worsening trends are judged more newsworthy than improving conditions and are "more likely to be accompanied by specific exemplars" (p. 655). If, as has been discussed, exemplar's are more easily assimilated and retrieved from memory, and as Berger suggests, exemplars are more often used in stories about worsening trends than improving trends, it could be argued that exemplars in news are reinforcing negative world views in people's minds.

One of the basic vehicles contributing to the creation of a spiral of silence is a misrepresentation of minority and majority (Noelle-Neumann, 1974, 1993). If journalists continually exemplify the minority rather than utilizing fair representativeness they may contribute to spirals of silence among the majority who misperceive their prevalence.

The impact of exemplification on journalism is far reaching. Journalism is asked to satisfy the demands of profitability, credibility, ethics and serving the public good—demands which are sometimes at odds with each other. In order to work toward a balance between these elements a better understanding of the impact of exemplars is needed. As noted by Brosius and Bathlet (1994) "if it is so easy to influence recipient's perceptions of problems by the composition of exemplars, the way in which exemplars are put together and distributed should become a matter of concern" (pp. 74-75).

Implications of Exemplar Theory to the Public

The single most dramatic implication of exemplification studies supports the suggestion of cultivation theory (Gerbner, 1969; Gerbner & Gross, 1976) that consumer's perceptions are influenced by what they see in news media. If exemplars are the more powerful element of news

stories, as established in the literature, and if those exemplars are commonly atypical, the general public is more likely to perceive the exemplar as being an accurate reflection of what is reality.

Exemplification has relevance to the decisions people make. If they perceive the world around them in a certain light their behaviors and their consequences will also be affected. In politics, if exemplars of a certain point of view are over represented individuals may become opinionated along similar lines to achieve social validation. If the most extreme exemplars of violent crime are over reported, people's perceptions about how violent the world they live in will be skewed and paranoia and mistrust may develop. The perception that the sensational is common, or the perception that what is actually common is not, can impact a broad variety of behaviors.

It is certainly not true to say that all reporters, or even a majority, intend to mislead by using atypical or sensational exemplars. Codes of conduct are well-known among journalists and even a member of the general public is likely to be familiar with labels such as "balanced" and "objective" in relation to the profession.

But as exemplification studies have repeatedly shown, balanced is not necessarily reality. Consumer's perceptions tend to be in line with the ratios and emphasis of exemplars (Brosius & Bathlet, 1994; Zillmann et. al, 1999). It seems quite possible then that the current ideal of balance in journalism does not, in fact, achieve fairness. The implications of this on how people, organizations and even governments make decisions are far reaching.

However, while the public generally do not immerse themselves in implications of theories such as cultivation, exemplification, or memory heuristics, they are not necessarily unaware of possible media bias. The Freedom Forum as discussed by Itule and Anderson (2003), reported concerns among the public it interviewed that news coverage did not reflect reality,

citing that stories clearly reported polar opposites. Certainly the elements of personal experience and common sense play a part in how the public perceive news stories.

Perhaps the greatest danger of the news media using non-representative exemplars then, is that consumers will have less trust in the press generally. Itule and Anderson (2003) note that consumers do not distinguish between news channels—if one is perceived as unethical, all are perceived as unethical.

Tools to limit public misperception from exemplars. This thesis has already acknowledged that atypical sensational exemplars are a part of our news culture and are appealing to the public. However, they can be presented in a manner that the reader does not leave with an inaccurate perception of reality. Four suggestions are given to help news consumers.

First, give exemplars in proportion to known ratios. Where this is not possible present exemplars in a manner that the reader will have the correct perception of the real-world ratio. For example, if one in 30 asthma sufferers are male, present more female exemplars than male exemplars. Even though a 1:30 ratio is not practical in an article, if the story contains more female exemplars than male, it gives a correct impression—that more women suffer from asthma than men. Representation does not demand that the exemplar ratios exactly match the base rate ratios; merely that the reader is given the same impression as if only the base rate were present.

Second, present base rate data in a perceptually enhanced way. Research suggests that this makes the base rate more dominant (Zillmann & Brosius, 2000) and therefore counters the overpowering effect of exemplars.

Third, use specific language, including base rate data, when stating an exemplar is a minority opinion. Research suggests that vivid, specific language is more effectual than pallid

language (Baesler & Burgoon, 1994; Brosius & Bathelt, 1994). If the exemplar in a story is atypical, specifically state the information that qualifies it as such.

Finally, educate journalists and editors in the power of exemplars and the impact they have, including the suggestions above.

Current Study

The exemplification phenomenon is well established in a controlled setting. Little has been done however, to examine real-world news media to see if the experimental conditions that result in exemplar effects exist; if they do, an argument can be made that people's attitudes to social issues are skewed as a result of selective or balanced exemplars. The intent of the current study is to run a content analysis of exemplars in weekly U.S. news magazines.

Research into bias in news reports certainly predates exemplification theory. During the time when exemplification was first conceived as a separate theory Fico and Soffin (1995) analyzed 259 newspaper stories on public policy issues across six measures: how many sources on each side of the issue were able to have their say; total column inches given to each side; and three measures of where the assertions of each side were cited in the article—headline, first five paragraphs, or confined to the end of the article. Over 50% of the stories had at least four of the six qualities dominated by one side of the issue. Public policy issues were chosen for their study because it enabled the researchers to match public opinion trends against whether the news stories reflected or departed from that opinion, hence testing representation. At a time when Gallup and ABC News/*Washington Post* polls registered public support for the war at over 70%, pro-war sources dominated fewer than 35% of news stories.

However, content analysis of exemplars in the news is, so far, uncommon. This author found three. Zillmann and Brosius (2000) outlined a limited study which reported that exemplars

were prevalent in news magazines and network news. This study recorded whether exemplars were present, how many there were, and if the exemplars were consistent with the story focus, in disagreement with it, or neutral. The sample was “four arbitrarily drawn articles of 1994” (p. 20) from weekly U.S. news magazines. Weaver (2009) reports in his thesis that those were not published in complete form and the coding protocol is no longer available (citing email with Zillmann). The study did however, concluded that exemplars were common in both media. Draschman and Brosius (1999) ran a content study of German TV magazine programs in the 90s, also stating that exemplars were common.

A more recent study (Weaver, 2009) examined stories from six national daily U.S. newspapers but was hindered by the relatively few articles that could be examined with the criteria used. From a constructed two week sample only 20 stories met the criteria. This generated a sample set too small to generalize from, and therefore contradicted both the other two studies’ position that exemplars were prolific in news. Weaver (2009) suggests that the main reason for the small useable sample was enforcing the criteria that a story needed to be a “trend story” that is, it identifies itself as being part of a larger social issue. This criterion is discussed in the next section.

The current study seeks to be a more comprehensive study of exemplar use in U.S. weekly news magazines by expanding the areas research and recording in more detail aspects of the exemplars used.

Trend story vs. isolated story criteria. The issue of trend stories and isolated stories is worth discussion as it resulted in the Weaver (2009) study having too few results to generalize from. Citing exemplification theory in general and Daschmann and Brosius (1999) specifically, Weaver states that exemplification studies have all been in the context of larger social issues, and

not among isolated stories. His finding was that newspapers contain few stories that identify themselves as part of ongoing trends and his study included only those that did. He concludes that the question of population sampling and isolated incidents needs empirical testing and that until that happens the trend story criteria is the only method compatible with exemplification theory's design.

However, there are arguments to suggest that just because a story does not identify itself as part of a larger trend does not mean it is isolated or that it should be discounted from study.

First, people may assume any story is part of a larger social issue without being explicitly told. Social trend is implied by the fact it is being covered in the news. This likelihood is akin to the already established principle that people generalize from atypical exemplars without being told they are atypical. Certainly in a widespread and ongoing story a reporter is not likely to waste valuable space stating it is a trend when the reader likely already knows it.

Second, if we accept the oft quoted statement by Zillmann (1999) that "no two events are exactly alike" (p. 74), we must also accept that no event occurs in complete isolation. Zillmann acknowledges in the same paper that even an event such as the first moon landing, while unique, can be employed as an exemplar of other moon landings. It can be added that while obvious elements of the first moon landing were unique, the majority of the Apollo 11 mission had been done by previous missions. If we apply the tenets of both the representative and availability heuristics—upon which exemplification is reliant—all news stories are processed in the context of existing knowledge and attitudes, and none will be seen as completely isolated.

Third, even if the story leans toward being isolated, it can still contain exemplars that misrepresent stated base rate data. Exemplification studies have never been concerned with the accuracy of the base rate data, just whether the exemplars match it.

Finally, a story may be seen as a trend or in isolation to different degrees by different readers depending on their experience or their expertise. An individual with a degree of expertise, or just a personal penchant for a certain topic may perceive a story in a trend context, whereas an individual who is a non-expert or disinterested in the topic could perceive the same story as isolated.

For these reasons this study will not exclude articles simply because they are not specifically identified as trend stories. It is expected that stories with exemplars will be prevalent in news magazines. Gibson, Gan, Hill, Hoffman, & Siegler, (1974, as cited in Zillmann & Brosius, 2000) record that "studies of the use of exemplars in U.S. news magazines found that 93% of stories examined used exemplars, and those stories included an average of 9.12 exemplars per story, although the use of three to four exemplars per story was most common" (p. 20). In addition, approximately 44% of each story was dedicated to exemplification.

Research Questions

The proposed research questions fall into four areas as follows:

Broad Analysis Questions

RQ1 How are exemplars used within specific news topics?

RQ2 What proportion of stories use exemplar only/exemplar and primary base rate data?

RQ3 How do articles use exemplars and counterexemplars?

RQ4 How many exemplars are used in weekly U.S. news magazines?

Base Rate Analysis

RQ5 Is any base rate data perceptually enhanced? (graphs and graphics, callouts)

Exemplar Analysis

RQ6 What is the proportion of exemplar types and sources used in weekly U.S. news magazines?

RQ7 Are the exemplars non-representative, balanced, or representative of the primary base rate information?

RQ8 Are the exemplars non-representative, balanced, or representative of the article focus?

RQ9 Do the exemplars use vivid emotions by victims and their affiliates?

RQ10 What is the gender ratio of exemplars?

Visual Exemplar Analysis

RQ11 Are images in the article threatening, innocuous or incidental?

Chapter III: Methodology

The review of literature shows that presentation of exemplars in different ways in news settings creates different perceptions among news consumers. The purpose of this study is to see to what extent the conditions that have given rise to exemplar effects in experimental designs are present in real-world media. A content analysis of weekly U.S. news magazines is proposed.

Sample

Two publications qualify: TIME, and *Newsweek.* Both of which are published over 50 times a year. Other magazines are excluded for various reasons: e.g., published monthly (*U.S. News and World Report)* having news as a secondary focus (*The New Yorker*), being openly one sided (*The Nation*), having publishing offices outside the U.S. (*The Economist*), or not producing original content (*The Week*).

Riffe, Lacy and Drager (1996) tested random sample sizes of weekly U.S. news magazines (six, eight, 10, 12, 14 and 16 issues) and reported that "a monthly stratified sample of twelve issues is the most efficient method for inferring to a year's issues" (p. 635). Their various tests were consistent in this conclusion with the exception of a test that included the year-in-review issue, which is atypical in that it has more photos and less news than a typical issue. This issue was therefore excluded from the current study.

Both TIME and *Newsweek* produce special issues, such as the Person of the Year issue (TIME) or the health issue (*Newsweek*); and both produce the occasional double issue and issues where a subject can be given the attention of the majority of news articles (such as the Haiti earthquake of January, 2010). These special issues were included.

A monthly stratified sample of one magazine per month per publication was randomly generated from the year September 2009 to August 2010. Both TIME and *Newsweek* index their stories in various categories on the contents page e.g., "commentary" or "the take." Although neither actually use the heading "news" their principal sections (where news articles would be found) are readily identified in TIME under the heading of "the well" and in *Newsweek* under the heading "features." It is from these sections that the population for this study was generated. The total number of stories from the selected 24 issues under these headings is 132 (N) and all were coded.

Each story was given a story number (from 1 to 132) and an identification code as follows: three letter month; two digit year; magazine initials (T or NW); story number within that issue. Thus the third story from the July 2010 issue of TIME would be coded as jly10T3. The list of the chosen issues and articles comprises appendix B. TIME magazine sometimes lists a

shortened or different headline in its index to the one at the top of the actual article. Appendix B uses titles from the index page.

Measuring Instrument

Two coding sheets were developed (appendix C) to record information to answer the research questions. Coding sheet A records general information and details of the articles visual content and representation. The story categories are those adapted by Weaver (2009) from an original study by Stempel (1985), with the addition of “religion” and “other” for this study. Coding sheet B records the relevant exemplars and the primary base rate data.

Procedures

A coder manual (appendix E) was written to explain the coding procedure question by question and provide operational definitions.

Reliability

Two phases of reliability were performed, a pre-coding exercise and an inter-coder reliability test.

The pre-coding exercise tested the coding sheets on articles from the chosen publications but not from the sample. This exercise highlighted a number of operational issues and led to several refinements of procedures, definitions and the coding sheets. These issues were discussed with the thesis committee chair and adjustments in definitions and procedures were made. This process was repeated over a period of months and the issues that arose and how they influenced the procedures for this study are detailed in the results section. No statistical analysis was conducted on these articles.

Intercoder reliability. Considering the complexity of the definitions and how they interact with each other, as well as the amount of reading involved, the training of many coders was considered time prohibitive. It was therefore decided that the main coder be the author. However, one other coder, selected from among graduate students was fully trained in the theory, the definitions, and the use of the coding sheets.

The two coders then tested the procedures on eight articles not from the sample population in order to identify and address issues that needed clarification. These articles were randomly selected from September 2010 issues of the magazines—the month immediately following the sample population. These articles were coded by both and the results compared. The coders agreed on the article focus, as was done in the Zillmann and Brosius (2000) study, but they coded independently.

Refinements were made to the definitions and coding sheets, then inter-coder reliability was performed with a sample from the population by randomly selecting 15 articles (11%) which were coded independently by both coders to verify common understanding of application of the concepts and agreement in interpretation. Intercoder reliability was performed using Holsti's coefficient and all results by question are in appendix D.

Coding sheet A records the number of exemplars and the number of counterexemplars identified from the article. This always varied between coders, however, the ratio of exemplars to counterexemplars was the same from each coder (see results section below). Only exemplars identified by both coders were used for intercoder reliability comparison.

The actual sample articles were then coded independently by the two coders, coder A, the author, coding 99 articles and coder B the remaining 33.

Results and Issues from Pre-coding and Intercoder Reliability

Because content analysis is a relatively underused tool in exemplification research, it was expected that a number of unanticipated issues would arise. Pre-coding was performed with several test articles from the publications (not from the sample group). The method was to code an article using the coding sheets and operational definitions, then, from the issues arising, refine the sheets and definitions, and test again. This cycle was repeated over a number of articles.

For intercoder reliability, 15 articles were randomly selected from the actual sample (11%) and independently coded by both coders, after they had agreed on the story foci. Holsti's coefficient requires a score of .7 (Holsti, 1969) and this was reached for 21 of the 36 questions, with a further three reaching .69 and a further four at .62 or .65.

A significant finding was the differences in style between article writing and experimental design writing. In experiments the articles were written such that the subject and exemplars could be easily identified and categorized, and their effects surveyed. In the real world it was found that articles often have multiple foci, and there is a seemingly infinite variety of writing styles that catch and keep attention. These factors mean that coding the elements of real-world exemplars is more complex than coding elements of exemplars in the experimental setting.

A discussion of the issues that arose may benefit the development of future content analysis studies and are presented here. Examples cited are largely from the pre-coding and intercoder exercises, though some are from the actual sample population to best illustrate the points made. A complete list of sample articles is in appendix B.

When the article is not news, or is not written by a journalist. The subject of this research is what kinds of exemplars are used in news articles in weekly news magazines. The pre-test showed that a number of articles cannot be classified as news. Opinion pieces were

sometimes listed under the news section (though each magazine has a separate heading for such pieces), but there were also book excerpts, product reviews, interviews, and articles by guest authors that were identified as not being by journalists.

In a chapter on ethics in news media reporting, Bender, Davenport, Drager and Fedler (2005) state that "reporters are neutral observers, not advocates or participants" (p 66) and "they should not comment, interpret or evaluate" (p 135). They also note that an article writer who is not a professional journalist may feel no obligation to abide by these rules and is more likely to state their biased opinion. It was decided for this study that non-news articles—e.g., those where the author(s) were identified as non-journalists, book excerpts, interviews and any articles where the author clearly states that they are presenting an opinion—would be coded as non-news and not for exemplars.

The presence of bias. Possibly because of the magazine format, many articles came close to showing bias that would not be found in a newspaper. Articles exist on a continuum between opinion and hard news, and most had elements of both. Even after eliminating stories that were clearly non-news, it was surprising how many articles contained language that had a degree of bias. As an example consider these four lines from a test article (Responsible rider, *Newsweek*, September 20, 2010).

- "If you've heard anything about Indiana's very slight, very balding, very unimposing governor—and that's a big if…"
- "But eventually it could provide the GOP with something it desperately needs (and currently lacks), a convincing model…of governance."
- "Washington Republicans tend to talk about fiscal discipline when they're out of power, then abandon it when they take over."

- "Soon enough however, Republicans may actually be asked to govern like grown-ups."

To both coders these read like opinions and made the article much harder to code, however, such articles were not explicitly presented as something other than news to the reader.

For this study the default position was to code wherever possible and only articles that presented a clear and frequent bias were excluded (e.g., "I believe that…" or "what we really need is…"). Statements that were ambiguous (e.g., "in this case Obama could have worked harder…") did not automatically discount the whole article. A question was added to ask if the article was attributed to a non-journalist.

The expansion of visual image definitions. None of the Zillmann & Brosius (2000) definitions for pictures take ownership of what could be termed "staged pictures"—pictures designed and constructed in a studio for the article. For example, story #34 (Can these parents be saved? TIME, November 30, 2009) discusses overprotective parents and features pictures of children being enveloped in bubble-wrap. Also, no provision is made for images that have been manipulated by computer software. In addition an image can be both a file photo and show someone being threatened; this would place it into both the threatening and incidental categories under the Zillmann and Brosius definition (2000). For this study, expanded definitions were developed for what constitutes threatening, innocuous and incidental images—the categories suggested by Zillmann and Brosius (2000). Even so coding an image was not always straight forward. An image can be any combination of threatening/innocuous/incidental as well as staged/file/manipulated. As a result, intercoder reliability was achieved only in the identification of threatening images.

Stories can be considered both isolated and trend. As was concluded earlier in this paper, no exemplar is exactly representative or completely isolated. In pre-testing it became apparent that it is not possible to empirically code whether a story is a trend or isolated story because different people can perceive the same article differently. Story # 30 (The fall of Greg Craig, TIME, November 30, 2009) is about the resignation of a political figure. It may be perceived as isolated by someone who does not follow politics, or because it's the first resignation of a particular administration. But to a political historian or political news columnist it may be considered in the context of resignations through the years making it a trend story.

A story can also evolve from isolated to trend. When it first breaks, it may represent an unusual occurrence, but if the story grows and lasts it becomes part of a trend. An article could conceivably be an isolated exemplar within a trend. AIDS stories have been a trend for years; a story with many unique attributes could be seen as an isolated story within that trend.

Most stories can be considered both isolated and trend depending on the readers experience, expertise, or level of interest—salience is in the eye of the beholder. It is impossible then to categorize a story as being completely isolated or trend. A better way to code would perhaps be on a continuum from isolated to trend with multiple coders marking how they would categorize the story, however, because any one coder's definitions would not reflect anything other than personal interpretation it falls outside the scope of this study and questions relating to trend were not included.

Too much base rate data or none at all, and the concept of primary base rate data. One major development for this study was the idea of primary base rate data. Some articles contained large amounts of base rate data. From one of the test articles (See baby discriminate, *Newsweek*, November 30, 2009) The first page of the article (12 paragraphs) contained 17

specific and non-specific base rate data. Examples include: “thousands of families”; “a third of the families”; “every parent”; and “Vittrup’s first test.” While all the data is relevant to telling the story, clearly not all of it is relevant to the overall story focus or to the exemplars cited. But not knowing the story focus, or the exemplars in the story, it was impossible to identify which base rate data related to either, or vice versa. As a reader progresses through the article however, the story focus and the exemplars become clearer, and certain base rate data can be identified as being either more or less relevant to the exemplars. In short, some base rate data is of primary relevance to the story focus and the exemplars used, other base rate data is supportive or secondary to it.

It was considered that if the primary base rate data could be identified, the process of analyzing it against the story focus and the exemplars would be easier. For this study primary base rate data were identified and used for coding. The exception was to code any base rate data, primary or otherwise, that was emphasized in some way (call-outs, graphs etc.).

At the other end of the scale however, only six of the 15 articles used for intercoder reliability contained any base rate data at all. The studies cited in the literature review (e.g., Brosius & Bathlet, 1994; Gibson & Zillmann, 1994) vary base rate information to be either precise or imprecise and note that exemplar information overpowers both. It can be argued then that where no base rate is present the exemplar will have an even stronger impact. An atypical exemplar will have a greater impact because there is not even the slightest presentation of opposing data. In the experimental design base rate data was an independent variable but not something that has to be present for an exemplar to have an effect. In this study, therefore, stories with no base rate data were included.

Answering questions about representation. Perhaps the most difficult questions to operationalize were those regarding representation. The definitions for whether the exemplars in an article were selective (entirely consistent with the minority of cases), blended (minority and majority cases are acknowledged but presented in a somewhat selective, nonrepresentative fashion) and representative (exemplars correctly represent the proportions of minority and majority in the population) were defined by Zillmann et al. (1996)—early in the exemplar studies. However, articles written for experimental design differ greatly in style and composition from those written in the real world. Trying to determine in which of the categories exemplars fall has two key elements; the first is identifying the article focus, (as discussed by Zillmann and Brosius 2000), the second is whether there is stated ratio base rate data. In order to know if exemplar distribution is representative a ratio statistic must be present. The ratio statistic may be specific (75 percent of people prefer dogs to cats) or non-specific (the majority of people prefer dogs to cats), but if it is not stated at all the reader cannot say if the exemplars present are truly representative of the population.

In addition, most primary base rate information is not presented in ratio form. In order to answer the questions about whether exemplars are representative, balanced, or non-representative they need one of two things: either a numerical ratio, or a statement about what is common (i.e., most carjackings do not result in violence). Ratio base rate was present in just three of the 15 intercoder stories, suggesting it would not be present frequently in the population. Even so, true representation is not always possible when a ratio is present. In the experimental design representation was easy to manipulate. If one in four people prefer cats to dogs it is easy to have four exemplars in the same ratio. However, if a story states that one person in 300 prefer cats to dogs, it is obvious that the story cannot contain a precise ratio of exemplars to represent

that—299 exemplars of dog lovers would be tedious. With ratio data being so rare in both the pre-coding and intercoder exercises it was expected that in most cases representation questions would not be answerable.

Identifying the story focus, multiple foci and article structure. Zillmann and Brosius (2000) state that a first step for Gibson, Gan, Hill, Hoffman, and Seigler's (1994) unpublished content analysis was to identify the article focus, and so it was in this study. But the wording of the story focus was found to have far reaching implications. For story # 57 (Fighting AIDS, TIME, January 25, 2009), the bulk of the article is about the efforts to develop AIDS vaccines by one doctor and his team. Some of their efforts failed, some show promise. If the story focus used is "successes and failures in developing a cure for AIDS" there would not be any counterexemplars coded, however, drop the word "failure" so the focus becomes "successes in developing a cure for AIDS" and all successes are exemplars, and all failures are counterexemplars, allowing us to examine the balance between the two in line with the theory. To further complicate the process; if you instead drop the word "success" from the focus all failures described would be coded as exemplars and all successes as counterexemplars—reversing the ratio and therefore the results.

What was found in the testing phases was that magazines often cover separate but related foci. In the experimental design articles would be written with a clearly defined subject and with all exemplars related to it, in a pattern such as shown in Figure 1:

Figure 1 Elements Present in Experimental Design

Main Subject
Exemplar 1
Base rate 1
Exemplar 2
Counter-exemplar 1

Straight forward patterns such as this make it easy to monitor results. The patterns in real-world feature articles however are more varied, often covering multiple subjects that could each be considered foci—each possibly containing exemplars and/or base rate data as shown in Figure 2.

Figure 2 Elements Present in News Magazine Articles

Main Subject 1	**Main Subject 2**	**Related Subject 1**	**Related Subject 2**
Exemplar 1a	Exemplar 2a	Exemplar RS1a	Exemplar RS 2a
Exemplar 1b	Exemplar 2b	Counter-exemplar 1	Exemplar RS2b
	Base rate data 2a		Exemplar RS2c
			Base rate RS2a

In addition, these elements are mixed, so matching exemplars with the subject they represent is not easily achieved.

A good example is story # 49 (Anatomy of a double cross, *Newsweek*, January 18, 2010). The first half of the article discusses Humam Balawi, an informant and terrorist. It has several exemplars of his suspicious behaviors. Almost exactly halfway through the article mention of Balawi all but ceases and there is a discussion of how the CIA combats terrorism in general. The article focus could equally be about terrorists in general, with Balawi as an example, or about a single terrorist—Balawi—with his behaviors as examples.

This may be due to differences in newspapers and magazines. Whereas hard news stories—i.e., that which delivers the essential who, what, why, where, and when facts—are more common in newspapers, magazines are more likely to contain feature articles of soft news—i.e., that which contains more background and interpretation (Itule & Anderson, 2003). It was found then that identifying the article focus and the relevant exemplars was seldom a clear-cut observation. The way in which magazine articles are constructed, with multiple foci and related

exemplars, complicates coding greatly. Considering these conditions, for this study article foci were chosen and worded such that counterexemplars could be identified.

Another pattern used in magazine articles is to mention exemplars briefly in the introductory paragraphs and then expand on them later in the article.

And while it didn't manifest in any of the testing phases, one way in which these magazines present exemplars and counterexemplars is by having two separate articles, each presenting a different point of view.

For example story # 60 (Follow the leader, *Newsweek*, February 8, 2009) presents the opinion that "populism in politics is growing and dangerous." It has few counterexemplars. It is immediately followed by story #61 (The wisdom of crowds, *Newsweek*, February 8, 2009) which presents the view that "populist rage leads to smart policy." In this case both stories were eliminated from this study because they were both clearly opinion pieces, but that is not always the case. Story # 64 (The depressing news about antidepressants, *Newsweek*, February 8, 2009) presents several exemplars supporting the view that anti-depressants do not work. The article opens with a first-person experience, but is mostly written in a news style with several third-party exemplars and it qualified for coding in this study. The following article, story # 65 (A doctor disagrees, *Newsweek*, February 8, 2009) is an entirely first-person account of how antidepressants helped a doctor. This was a first-person narrative and clearly an opinion, and as per the operational definitions it was discounted. According to the theory, the first-person article, if taken as a single exemplar, would have more influence than the paraphrased exemplars of the third-person article (although the third-person article is six pages long, and the first-person article is a single page). This arrangement of exemplar-article and counter-exemplar-article, along with the independent variables of length, base rate data etc. has not, to the authors knowledge, been

tested in the experimental design. The design of the current study did not account for such a structure; rather, each article was coded independent of the articles around them. This does mean that an article could be coded as a single, selective, exemplar, even though a counter-exemplar, in the form of another article, was also present.

Identifying and coding exemplars and the reasonable reader test. Even when a single article focus had been agreed upon, the interpretation of what constitutes an exemplar is dependent on the individual who is reading. From the eight pre-test articles, after the story focus had been agreed on, coder A identified 78 exemplars and coder B identified 82. While this number is close, rarely were the same exemplars identified for a given story and in total only 55 of the exemplars were identified by both coders. This seems at first glance to invalidate the research on the basis of disagreement over the unit of analysis, however, if considered not on the total number of exemplars but on the ratio of exemplars to counterexemplars the coders agreed in 100% of the test stories. While the coding sheet records the number of exemplars and counterexemplars respectively, a question was added “are there more exemplars than counterexemplars?” which, with a Holsti’s score of 1.0, gives an accurate answer to the ratio of exemplars present.

Many possible ambiguities in coding were eliminated during the pre-test phase. But even then circumstances not encountered in the testing phase arose as the coding of the sample progressed. Three are given here as examples.

Story #76 (The gang that couldn’t shoot straight, *Newsweek*, March 29, 2011) contained an exemplar of the results of an opinion poll quoted in a UN report. Under the operational definitions exemplars from a report are coded as “other,” but an opinion poll clearly reflects the views of people and would be coded as “general public.”

One of the images accompanying story #76 (The gang that couldn't shoot straight, *Newsweek*, March 29, 2011) clearly showed a member of the military attacking another man in hand-to-hand combat. This is clearly threatening, but, having read the article, the coder was fully aware it depicted a training exercise and was therefore not a real threat, so it could be coded as innocuous.

Story # 99 (The case against Goldman Sachs, TIME, 3 May, 2010) contains the following exemplar: "Under former commissioner Christopher Cox, Wall Street was basically self-regulating and the SEC hands-off, which enabled the greatest Ponzi schemer of all time, Bernie Madoff." The exemplar subject could be coded as "expert" (either of the two men mentioned), or "other" (Wall Street and the SEC).

Whenever new or ambiguous situations were encountered the following question was proposed: What impression is a reasonable reader likely to take from this article/statement/exemplar/picture? In most cases the answer presented a clear way to code, and if ambiguity still existed the subject material was dropped from the study.

When the exemplar is the story—single exemplar articles. Finally, while more prevalent in newspaper stories than in news magazine articles, the idea of an exemplar being a story was a significant point of development. A dominant question in the research to date has been "what is the relationship between exemplars and the base rate data?" and in the experimental design the stories were always written to be about general issues with the independent variables being various aspects of the exemplars and base rate data. But in a real-world publication a story can be about a single exemplar—sometimes the exemplar *is* the story. Consider this headline: Web Addict Pair Jailed for Letting Baby Starve (Sky News, 2010). This

is not a story about Internet addiction in general; instead the entire article focuses specifically on one, atypical exemplar.

In magazine format however, subjects are dealt with in more depth, and other exemplars are almost always present, although sometimes as just a single sentence or small paragraph. In an article of several pages it is questionable whether such a small counterexemplar would have an impact, although to the author's knowledge this has not been extensively researched in the experimental designs. For the purposes of this study if a secondary exemplar was barely mentioned in an article that was largely about a single other exemplar, the article was coded as being about a single exemplar.

Chapter IV: Results

The stratified random sample of magazine issues contained a total of 132 articles in their news sections. Of these, 45 were excluded as being non-news, leaving 87 news articles that were fully coded. These articles produced 873 exemplars that related to the article foci. The Holsti's score from the intercoder exercise are recorded for each question in appendix D.

RQ1 How are exemplars used within specific news topics?

This initial question was designed to see which subjects used exemplars in which ways and if certain patterns are more common within certain subjects. However, as Table 1 shows, with 87 articles and 16 subject categories, there were often very few instances of specific topics. In addition, the topics that are prominent at any one point in time may lose prominence as time passes, and for this reason any results by topic may also be temporary.

Table 1

Frequency of Subjects in All Articles

Subject	Frequency	%
Politics and government	10	11.5
War and defense	12	13.8
Diplomacy and foreign relations	10	11.5
Agriculture	3	3.4
Transportation	1	1.1
Crime	2	2.3
Accidents & natural disasters	4	4.6
Science and tech.	1	1.1
Public health	11	12.6
Education	3	3.4
Pop culture	5	5.7
Economic activity	11	12.6
Public moral issues	4	4.6
Human interest	3	3.4
Religion	1	1.1
Other	6	6.9
Total	87	100

Because of the number of subject categories, cross tabulation results often generated a large number of cells with zero entries, invalidating inferential analysis. Tables 17 and 18 present data for the top five stories only, each of which had more than 10% of all articles. This does not represent the population as a whole but accounts for 61% of the total articles which the top five stories comprise. Because so many subjects had so few occurrences there are few

results that actually compare results among the different subjects. Instead, the focus remains on results of frequencies on the population as a whole.

There are several findings that can be made about exemplars in broad terms, most of which are reported under the other research questions. Table 2 indicates of the total 87 articles, 27 (31%) were deemed to be about a single exemplar, meaning other exemplars, counter or otherwise, were mentioned so briefly, if at all, that a reasonable reader could be assumed to interpret the article as being about just one exemplar. Single exemplars are not present in the existing literature simply because counterexemplars had to be present in order to observe the competing effects. The theory has shown that reader perceptions are in line with the majority of exemplars, suggesting that if only a single exemplar is present reader perceptions will not have true representation.

Table 2

Frequency of Single Exemplar Stories

Single exemplar	Frequency	%
Yes	27	31
No	57	65.5
N/A	3	3.4
Total	87	100

RQ2 What proportion of stories use exemplar only/exemplar and base rate data?

More common in experimental design is the inclusion of exemplar/counterexemplar and exemplar/base rate as independent variables, so as to observe the relative effects. Table 3 shows that just over half (55%) of all articles presented at least one piece of base rate data that was considered of prime relevance to the article focus. This means that just under half of all news stories contain only exemplars and no quantitative scientific data. Although the effects of

exemplars are shown to most often dominate those of base rate data, the absence of any base rate data compounds this effect.

Table 3

Frequency of Primary Base Rate Data

Primary base rate present	Frequency	%
Yes	47	55.2
No	35	40.2
N/A	5	4.6
Total	87	100

RQ3 How do articles use exemplars and counterexemplars?

Readers perceptions have been shown to be in line with whichever is dominant—exemplars or counterexemplars (Zillmann & Brosius, 200, p. 83-84). Zillmann and Brosius posit that exemplars in support of the article focus will be most common (p. 21) and this is borne out by the results shown in Table 4 where in 80% of cases a greater number of exemplars support the article focus, while counterexemplars represent the minority.

Table 4

Frequency of Articles where Exemplars Outnumber Counterexemplars

More exemplars than Counterexemplars	Frequency	%
Yes	70	80.5
No	14	16.1
N/A	3	3.4
Total	87	100

Vivid emotion is considered to give an exemplar a more powerful effect (Zillmann and Brosius, 2000, p. 98). Table 5 shows vivid emotions are seldom present in news magazine articles (p=.22), but that they are more often used in counterexemplars—those opposing the view of the article focus.

Table 5

Comparing Vivid Emotion in Exemplars and Counterexemplars

	Is vivid emotion present?	
Exemplar	Yes	No
Exemplar	3	222
	-1.0	.2
Counterexemplar	18	630
	.6	-.1
Total	21	852

*p=.22

Even though exemplars outnumber counterexemplars and vivid emotion is more prevalent in counterexemplars, the occurrence of vivid emotion is so rare that its impact on readers perceptions is likely minimal.

RQ4 How many exemplars are used in weekly U.S. news magazines?

The total number of exemplars and counterexemplars coded for this study was 873. It should be noted that these are just the exemplars related to the main article focus, so the total number of exemplars contained in news articles is more. This finding simply establishes that exemplars are widespread in news articles.

RQ5 Is any base rate data perceptually enhanced?

There is evidence that base rate data that is perceptually enhanced in some way strengthens the impact of that data (Zillmann & Brosius, 2000). Research question five asked if

any base rate data in the article was emphasized in some way. Fifty-nine percent of stories contained some kind of base rate data, but just 16% contained base rate data that had been perceptually enhanced in some way.

Table 6

Perceptually Enhanced Base Rate Data

Presentation of base rate data	Frequency	%
Text only	37	42.5
Text w/ graph	2	2.3
Text w/ graphic	3	3.4
Text w/ headline/call-out	4	4.6
More than one	5	5.7
N/A	36	41.4
Total	87	100

A separate question on coding sheet A asked how many images contained base rate data. This would include graphs and graphics. Table 7 shows that only 10 articles (11.4%) contained an image that illustrated some sort of base rate data, reinforcing the finding of Table 6 that base rate data in news articles is seldom enhanced. The conclusion is that base rate data has minimal influence a) because it is not always present and b) because it is seldom presented in a manner that makes it noticed.

Table 7

Frequency of Amounts of Base Rate Images

Number of base rate images	Frequency	%
0	77	88.5
1	4	4.6
2	2	2.3
3	0	0
4	2	2.3
5	1	1.1
6	1	1.1
Total	87	100

RQ6 What is the proportion of exemplar types and sources used?

Quotes are considered the strongest of exemplars (Zillmann & Brosius, 2000) but Table 8 shows that quotes dominate less than 28% of all exemplars, though they are present in another 7% (the mixed category). More common is the anecdote which, although generally not as powerful an exemplar, comprises 51% of all exemplars present. Anecdotes, defined in the operational definitions as "events, stories and historical illustrations that are not credited as quotes" are clearly preferred in news magazines. This explains the large number sources in the "other" category of Table 9, which included exemplars from official reports and those not attributed. The conclusion is that in news magazine articles many exemplars are not attributed or come from a document rather than a first-person account.

Table 9 also illustrates the most preferred sources of exemplars in news magazines. While "unattributed" and "document" sources dominate (52%) of the exemplars that are

credited experts are used more than twice as often as public officials (27% to 11%) and five time as often as the victim/subject (25% to 5%). It should be noted that if the subject was also a public official they would be entered in the latter category.

Table 8

Frequency of Exemplar Types

Type	Frequency	%
Quote	239	27.4
Paraphrase	76	8.7
Mixed (quote and paraphrase)	63	7.2
Anecdote	448	51.3
Hypothetical	47	5.4
Total	873	100

Table 9

Frequency of Exemplar Source

Source	Frequency	%
Expert	235	26.9
Public Official	98	11.2
Victim/subject	44	5
General public	41	4.7
Other	455	52.1
Total	873	100

RQ7 Are the exemplars non-representative, balanced, or representative of the primary base rate information?

Two questions were asked about representation, one relating exemplars to base rate (a common construct in experimental design) and a second relating exemplars to the article focus. In order to answer any question about representation of base rate data a ratio statistic must be present in the article. This was absent in 78% of articles (Table 10). Of the 19 articles that did contain ratio data, only nine had exemplars that related to the stated ratio. Of those nine there is a fairly even split between selective and blended, but none that were considered to present exemplars in exactly the proportions the ratio stated (representative). This finding indicates that appraising exemplars for how representative they are is most commonly not possible for readers.

Table 10

Frequency of Exemplars Representative of Base Rate Data

	Frequency	%
Selective (exemplars only)	4	4.6
Blended (counterexemplars acknowledged)	5	5.7
Representative (in correct proportion)	0	0
N/A (no ratio present)	78	89.7
Total	87	100

Note Selective: where all exemplars are consistent with the article focus. Blended: counterexemplars are present but still in a selective, non-representative fashion.

RQ8 Are exemplars non-representative, balanced, or representative of the article focus?

Ratio data was not needed to answer question eight. But again, when considered against the main focus of the article, most articles were considered to be selective or blended (Table 11), neither of which properly represent the real-world environment.

Table 11

Frequency of Exemplars Representative of Article Focus

Representation	Frequency	%
Selective (exemplars only)	20	23
Blended (counterexemplars at least acknowledged)	58	66.7
Representative (in correct proportion)	2	2.3
N/A	7	8
Total	87	100

Note Selective: where all exemplars are consistent with the article focus. Blended: counterexemplars are present but still in a selective, non-representative fashion.

The findings presented in Tables 10 and 11 are key to exemplar studies. In very few instances is a ratio base rate stated, and in no instance were the exemplars considered to be in proportion to that ratio. Moreover, just two articles were considered to have exemplars in line with the article focus—which begs the question is the article focus representative? discussed in the review of literature. The conclusion is that in news magazines exemplars are most often blended, that is, counterexemplars are at least acknowledged, albeit in a non-representative manner.

RQ9 Do the exemplars use vivid emotions by victims and their affiliates?

Emotionally vivid exemplars are more likely to attract our attention and have a greater impact on us (Aust & Zillmann, 1996). Vivid emotion is not often used by exemplars in news

magazine articles (Table 12). This may be, at least in part, because so many of those exemplars were found to be from official and non-attributed sources rather than first-person accounts (Table 8).

Table 12

Frequency of Vivid Emotion in Exemplars

Vivid emotion?	Frequency	%
Yes	21	2.4
No	852	97.6
Total	873	100

Table 13 compares source gender with vivid emotion (p=.981). The N/A category covered sources where gender was not specified.

Table 13

Comparing Source Gender with Vivid Emotion

	Vivid emotion	
Source Gender	Yes	No
Male	7	281
	.0	.0
Female	1	59
	-.4	.1
Mixed	1	34
	.2	.0
N/A	12	478
	.1	.0
Total	21	852

*p=.982

Looking at Table 13 it would appear that males use vivid emotion more than females on a 7:1 ratio, but it should be noted that male exemplar sources outnumber female exemplar sources at a ratio of 24:5 (Table 14) so the result is not unexpected.

RQ10 What is the gender ratio of exemplars?

The high number of exemplars without gender attribution (Table 14) supports the finding that many exemplars are quoted from non-attributed sources or official documentation (Table 9). However, males are the source of exemplars nearly five times more often than females; and males are the subject of exemplars four times as often (Table 15).

It is concluded, because of the disparity of gender presence in news magazine articles, that the gender of exemplar sources and the gender of exemplar subjects should be studied to see how they influence reader perceptions. A cross tabulation comparing source and subject gender is in Table 19.

Table 14

Frequency of Source Gender

Gender	Frequency	%
Male	288	33
Female	60	6.9
Mixed	35	4.0
N/A	490	56.1
Total	873	100

Table 15

Frequency of Subject Gender

Gender	Frequency	%
Male	221	25.3
Female	54	6.2
Mixed	124	14.2
N/A	474	54.3
Total	873	100

RQ11 Are images in the article threatening, innocuous or incidental?

It was found during the pre-test that images could be in more than one of their three categories (a threatening image, if it's a file image, is also an incidental image). This study expanded the Zillmann/Brosius definitions of visual exemplars and the coding sheets were adjusted accordingly. Intercoder reliability however, was not reached in all the new sub-categories and those results are not presented. Intercoder reliability was reached in identifying the total number of threatening images (Holsti's .77), and was very close for incidental images (Holsti's .62), but was not reached for total innocuous images (Holsti's .38). However, being that Holsti's was so close to valid for the two categories we can safely surmise the ratio of all three categories and conclude that most images in news magazines are incidental (Table 16). Threatening images are hardly common, occurring in just 17 articles (9.5%). Incidental images are also relatively infrequent occurring in just over 26% of articles.

Because there were so many subject categories cross tabulations resulted in zero counts in many cells. Tables 17 and 18 illustrate the frequency of threatening and incidental images in the top five subject categories only. This does not give representation of the entire population but of the top five subject (61%) articles.

Table 16

Frequency of Threatening, Innocuous and Incidental Images

Image type present	Threatening		Innocuous[a]		Incidental	
	frequency	%	frequency	%	frequency	%
Yes	17	19.5	72	82.8	23	26.4
No	70	80.5	15	17.2	64	73.6
Total	87	100	87	100	87	100

Note. A threatening image is one of the actual person/event where someone is being visibly restricted, suffering, threatened etc. An innocuous image is one of the actual person/event where no one is being visibly threatened. Incidental images represent the event in general terms.

[a] Holsti's was not reached for identifying innocuous images.

Tables 17 and 18 show the frequency of images in the top five subject categories. Perhaps unsurprisingly articles about war have more threatening images.

Table 17

Frequency of Threatening Images in Top Five Subjects

Subject	Threatening images	No threatening images
Politics and government	1	9
War and defense	6	6
Diplomacy and foreign relations	3	7
Public health	1	10
Economic activity	1	10
Total	12	42

Note. threatening image is one of the actual person/event where someone is being visibly restricted, suffering, threatened etc.

Table 18

Frequency of Incidental Images in Top Five Subjects

Subject	Incidental images	No incidental images
Politics and government	2	8
War and defense	2	10
Diplomacy and foreign relations	6	4
Public health	6	5
Economic activity	3	8
Total	19	35

Note. Incidental images represent the event in general terms.

Tables 16, 17 and 18 show that threatening images are not common and that incidental images are only slightly more so. The table for frequency of incidental images of the top five subjects is not shown as intercoder reliability was not achieved, but for reference it can be found in Table 20.

Other Observations

Forty five of the articles (34%) were non-news although only 19 articles (14%) were attributed to authors other than journalists. This finding was not specifically part of this study's design, but it does suggest that there are a significant number of articles presented as news that are in fact not. Some are written by non-journalists but a surprising number are, meaning that a number of articles may contain clear bias but are not readily identified as being non-news pieces.

Table 19 compares source gender to subject gender ($p<.001$). It illustrates that in news articles in news magazines most sources are not gendered. This is also true of the exemplar subject. Of exemplars that are gendered, males dominate both in terms of source and subject.

Table 19

Comparing Source Gender and Subject Gender

Source Gender	Subject Gender			
	Male	Female	Mixed	N/A
Male	78	9	42	158
Female	8	18	15	19
Mixed	7	2	13	13
N/A	127	25	54	279
Total	220	54	124	469

*X^2 (9, N = 873) = 94.69, p<.00

Table 20 shows innocuous images in the top five subjects (p=.15). This question did not achieve intercoder reliability, and the results are included as a matter of interest.

Table 20

Frequency of Innocuous Images in the Top Five Subjects

Subject	Innocuous images	No innocuous images
Politics and government	9	1
War and defense	11	1
Diplomacy and foreign relations	6	4
Public health	7	4
Economic activity	10	1
Total	43	11

Note. Holsti's was not reached for intercoder reliability of innocuous images. An innocuous image is one of the actual person/event where no one is being visibly threatened.

This study was not specifically aimed at studying differences between the two magazines used; however, which magazines the articles and exemplars came from was coded. The differences between the magazines were statistically significant in only one instance—listed in Table 21 for interest— and showing ($p<.01$) that *Newsweek* is more likely to run a non-news story in the news section.

Table 21

Magazine to non-news Cross-tabulation

Magazine	News	Non-news
TIME	50	15
	1.1	-1.5
Newsweek	37	30
	-1.1	1.5
Total	87	45

*X^2 (1, N = 132) = 6.91, $p<.01$

Chapter V: Discussion

Content analysis research does not demonstrate cause and effect; rather, it monitors and reports on existing conditions. The premise of this study was to see if the same conditions that caused exemplification effects in experimental design are found in real-world settings. Only one content analysis of exemplars in U.S. news magazines has been conducted and is described by Zillmann & Brosius (2000, p. 20-21). However, the current study is more exacting in a couple of ways. First in methodology—theirs was not a representative sample but a random selection of just four issues each from TIME, *Newsweek* and *U.S. News and World Report.* Second, the current study is more thorough in that it included elements theirs did not (e.g., visual exemplars,

vivid emotion), and lastly, the current study is more focused in that it included only news articles whereas theirs coded every article.

Broad Analysis

Although the frequency of specific topics was recorded (Table 1), subject frequencies are likely dictated by current events and may be different if the study is repeated in the future. Economic activity and war and defense articles ranked in the top five, but this is not surprising considering the magazines coded were published when the global recession was at its height and U.S. military forces were in both Iraq and Afghanistan.

Additionally it may be that base rate data is expected more in some subject topics than others (economics over human interest for example), but again there were too few articles of certain subjects to determine if this is the case.

Fifty-five percent of articles contained primary base rate data (Table 3). The experimental designs have shown that even where base rate is present in most cases the exemplar is dominant. In any story where base rate is absent the exemplar then becomes all powerful, and this is the condition in 45% of all news magazine stories. Readers of these stories are likely to perceive the world as being represented by the exemplars they read, without any of the clarification base rate data would supply.

Twenty-seven percent of all articles were considered to be single exemplar articles (Table 2). In a strict application of Zillmann and Brosius's (2000) definitions, a blended article is one where counterexemplars are at least acknowledged, but where representation is still imbalanced. In this study an article could be coded as being about a single exemplar if counterexemplars were hardly present or not present at all (i.e., a single sentence counterexemplar in a three page article about an exemplar). Under this definition some 35% of articles in the top five subjects were

single exemplars, with little or no counter balance. These articles are expected to have a very strong impact on reader perceptions, though they are not specifically tested in experimental design. It should be noted however, that a possible type of article presentation can affect this result. Approximately two-thirds of the way through coding, two articles were found next to each other in a single magazine, each of which presented a different view of an issue. Considered together, as two sides of one issue, the articles could be said to be blended; but if each is taken separately, as they were for this study, they would be said to be one-sided (selective). This arrangement was not common but did occur occurred more than once in coding.

This study generated 873 coded exemplars from a stratified random sample of all news articles in a year. Zillmann & Brosius (2000) report an average of 9.12 exemplars per article. This study coded an average of 10 exemplars per article, though this number needs clarifying—only exemplar's in line with the article focus were coded (which means the average of 10 is low). Also, only news articles were coded, and other types of articles contain less exemplars (Zillmann & Brosius, 2000) which bought the Zillmann/Brosius average down. This finding however, certainly confirms the theory's basic tenant that exemplars are used frequently.

Zillmann and Brosius (2000) recorded that exemplification was "mostly in line with the focus of the news reports" (p. 21). They reported that this was so in 57% of cases, that inconsistent exemplars comprised 25% of cases, and that 18% were neutral. The present study did not include a neutral category—everything was coded as either an exemplar or counterexemplar—however, 74% were coded as exemplars and 26% as counterexemplars, confirming that exemplars are more common than counterexemplars. This study also recorded whether exemplars or counterexemplars were dominant in each article (Table 4). In 80.5% of articles there were a greater number of exemplars (of the article focus) than counterexemplars.

The conclusion is that U.S. news magazines most commonly present exemplars in line with the article focus. The implications of the overall article focus are illustrated in the following example.

Article # 9 from the sample, (Can Arne Duncan (and $5billion) fix America's schools? TIME, September 14, 2009), focused on the education secretary's ideas for education reform. The article focus identified was "the new secretary of education wants to reform the school system" and exemplars were selected on that basis. The pre-test exercise had a similar story—(Obama's class project, *Newsweek,* September 20, 2010). It also had details of Education Secretary Arne Duncan's reforms, but the story focus identified was "Obama's education reform is more successful than the previous administrations." Both article foci are valid and in line with the framing of the article they represent, but they return different exemplars. In the TIME article specifics about Duncan would be included and mentions of Obama possibly left out; in the *Newsweek* piece that would be reversed.

These findings emphasize how powerful a role agenda setting plays. A slightly different headline or focus can lead to a different set of exemplars and thus to a different perception of reality by the reader. In this case which article you read would determine whether you consumed exemplars of either Obama or Duncan as the architects of education reform, and affect your perception accordingly.

This study also coded for the presence of vivid emotion in exemplars. Vivid emotion, considered in the theory to make an exemplar more powerful (Zillmann & Brosius, 2000. p. 98), was present in just 2.4% of exemplars (Table 12), though interestingly, most instances of vivid emotion use were in counterexemplars (Table 5). In most cases then readers are not further influenced because vivid emotion is present.

Base Rate Analysis

Primary base rate data is not uncommon being present in 55% of articles (Table 3). This reflects the intercoder findings where nine of the 15 articles coded had base rate data. However, a ratio statistic is necessary for a reader to accurately identify if the exemplars present are representative or not. Only 19 articles (22%) contained a ratio, only nine of which (10.3%) related to exemplars (Table 10).

The literature suggests that perceptually enhancing base rate data gives the data more influence (Zillmann & Brosius, 2000, p. 86). Table 6 shows that 59% of articles that contain some kind of base rate data but that it is most often appearing only in the body of text. Just 16% of all articles emphasize base rate in any way. In line with the theory, this would suggest that base rate data does not exert as powerful an influence as it could in news magazine articles because it simply is not prominent. The conclusion is that base rate data has minimal influence a) because it is not always present and b) because it is seldom presented in a manner that makes it noticed.

Exemplar Analysis

Anecdotes are possibly the weakest kind of exemplar as paraphrases are considered stronger and quotes strongest of all (Zillmann & Brosius, 2000 p. 89). Table 8 shows that the majority of exemplars used in news magazines (51%) are anecdotes—essentially exemplars in the writers own words—with quotes coming in second most common at 27%. Table 9 shows the sources of exemplars. The “other” category recorded 52% of all exemplars. This category included ambiguous sources, relations and friends of the subject, official reports and observations made by the journalist. The next highest ranking was experts who comprised 27% of all exemplars.

The conclusion is that in news magazine articles many exemplars are not attributed or come from a document rather than a first-person account. Which of these methods is most influential is open to some debate because it depends on personal salience (Zillmann & Brosius, 2000, p. 44). If you are in a similar life circumstance a subject/victim source may exert more influence than an expert; in a setting with which a reader is not personally acquainted an expert source may excerpt more influence than one from the general public.

A major tenet of exemplification theory is representation. Each exemplar represents a larger population and should do so accurately (Zillmann & Brosius, 2000, p. 130). The current study asked two representation questions.

The first asked if the exemplars were representative of the base rate data present. In order to answer this question a ratio statistic has to be present. You can only know if the exemplars presented represent a population when you know the proportions of the population which they represent. Just nine articles (10.3%) contained ratio data (Table 10), and none of these were considered to present exemplars in the correct ratio as stated in the text.

The second representation question asked if the exemplars were representative or not of the article focus. No ratio data was required to answer this question but it did lean more toward reader interpretation than other questions. Even so, Table 11 shows that only two articles (2.3%) were considered to be accurately representative. All others were either blended—where counterexemplars to the focus are acknowledged, but not balanced, or selective—where all exemplars are in line with the story focus.

Because of the lack of ratio data it can be concluded that in most cases readers do not have the information to judge if the exemplars they are reading accurately represent the larger population they characterize, and in the few cases where ratio is present, the exemplars in the

article are presented in a skewed manner. Exemplars in news magazines then are not representative and lean toward reinforcing the framing of the article focus.

To date, gender has not been studied as a factor in exemplification research to any noticeable extent. However, strong results were produced in the area of gender presence in exemplars (Tables 14, 15, and 19). Fifty-six percent of sources were not gender specific, meaning they were unstated or came from official documents; this was to be expected considering the large number of exemplar sources recorded as official documents (Table 9). Among those where gender was apparent however, men greatly outnumbered women in all cases. Men were the exemplar source in 33% of cases while women were the source of only 7% (Table 14); and men comprised the subject of the exemplar in 25% of cases, to 6% about women. Men are certainly quoted more often than women and men are quoted about more often than women (Table 15). A cross-tab analysis comparing source gender to subject gender (Table 19) returned a $p < .001$ showing the significance of how genders are presented in news magazines exemplars. It should be noted though that this is not necessarily indicative of journalist bias. If more men hold certain positions among the professions used as exemplars, they will have a higher frequency.

Visual Exemplars

Although intercoder reliability was not reached in identifying innocuous images, Table 16 shows that threatening images were least common, and the majority of those were found in articles about war and defense (Table 17). Incidental images were the next most common, meaning that despite the intercoder result, innocuous images were the most common (totaling more than threatening and incidental images combined). Images have a strong influence on reader perception of threat to self and threat to others (Zillmann & Brosius, 2000, p.105-106) and

affect the perceived importance of a story (Zillmann, Knobloch & Yu, 2001). From the data in this study it can be said that publishers' preference is to use images of the article focus/exemplars but not ones that are threatening, or incidental images of a general nature. Expanding the definitions of visual exemplars was necessitated because images in news articles could fit into more than one of the original Zillmann/Brosius categories. Intercoder agreement however, was not fully met in all the new categories. It may be appropriate to compare two categories of images (i.e., threatening vs. innocuous) rather than comparing all categories at once. Further clarification and testing however, is needed in this area.

Conclusion

A number of circumstances that produced an exemplification effect in the experimental designs are present in real-world news reported in news magazines. Exemplars are mostly in line with the focus of the article in which they are contained, with around 30% of articles being essentially a single exemplar. Just under half the articles contain any base rate data and when they do it is not presented in a noticeable fashion.

To give a true representation of reality exemplars should be presented in line with known base rate data, or as near to it as possible (Zillmann & Brosius, 2000, p. 130). This study shows that this ideal is rarely approached in news magazine articles. This study found that in terms of the article focus and base rate data news magazine articles are predominantly selective. Zillmann and Brosius state that "selective exemplification…must be expected to yield the most distorted, incorrect perceptions" (p. 83). The results show that news is not presented in the most representative way to the public and conclude that as a result exemplification effects—incorrect perceptions of reality—could well be present among consumers of such news.

The use of vivid emotional exemplars and threatening images—two factors that enhance the impact of exemplars—are not common. In addition, although quotes are considered the strongest type of exemplar, they are only the second most common, behind anecdotes, a less strong form of exemplar presentation.

It is however, acknowledged that it is not always possible to present exemplars in accurately proportional ways. Zillmann and Brosius (2000, p 130) suggest that it is possible to present exemplars in such a manner that the reader leaves with the same impression as if they had seen only the base rate data. If, for example four out of seven people prefer cats to dogs and the exemplars consist of two cat lovers and one dog lover, this would, according to the theory, still give the reader the impression that more people like cats than dogs. This circumstance is not a perfectly represented ratio of exemplars but gives a correct impression.

Chapter VI: Limitations

The initial limitation to the study was that content analysis for exemplification theory is in its infancy and guidelines and methodology were scarce or non-existent. Without existing operational definitions this study was obliged to construct and test them as it progressed so energies were focused on developing research methods rather than on the data gathering and interpreting of results. This however, may be an important contribution for future researchers.

This study was possibly too much of a “catch-all” project. There are several elements to exemplification theory and as many of them as possible were included. The desire was that development of methodology and the results would be a good starting point for future content analysis research; however, the wide focus may have stretched resources a little too thinly. In trying to code for so much, there was a lot for coders to look for. There was always the worry

that an uncommon instance (such as the expression of vivid emotion) would be missed because coders were also looking for so many other things and because of their rareness.

The nature of the theory itself was sometimes limiting. The coding sheets were tested and refined over a period of eight months; even so, it was not possible to rule out all instances where more than one interpretation was possible. There is therefore a degree of ambiguity about certain parts of the research simply because aspects of exemplification are reliant on individual salience, which cannot easily be operationalized.

The present study could be expanded upon by gathering more articles of different subjects. Even though the sample was representative of a year's articles, only five subjects made up 61% of articles. Studying how exemplars were used by specific subjects was not possible because in cross tab analysis too many cells had a value less than five. With more articles—by expanding either the number of issues in a given year, or the number of years—more subjects would be represented to the point analysis could be made.

Chapter VII: Future Research

The larger part of existing literature on exemplification describes the experimental designs that establish the existence of exemplification effects, with the smaller part describing the initial experiments that incorporate real-world elements. It can be argued that the theories relevance is flawed in that it applies only to conditions that are not always present in a real-world environment. This content analysis presents a picture of how conditions actually are, and gives future experimental design based on these findings more relevance. This discussion of future research will address experimental designs, real-world research, and refinement of the theory itself.

Refining Exemplification Theory

One condition of exemplar theory stated in early literature is that news exemplars considered for study are presented in the context of being part of an ongoing social issue (Dachmann & Brosius, 2000), and in the experimental setting this is easy to ensure with the inclusion of a line such as “we see this more and more.” However, the information we receive in media is rarely identified as part of an ongoing issue. In the review of literature earlier in this paper it is noted that the absence of an explicit trend statement within a story does not eliminate the effects of exemplars, or ensure that the consumer does not assume an article is part of an ongoing trend. Also noted was that whether an individual interprets news as a general trend or as isolated is reliant on the experience, knowledge, and existing beliefs of that individual. On this basis, if exemplification theory is applicable to media content not in terms of how it is presented but more on the grounds of how it is received, the basis for future study can be broadened. For the current study this author took the view that people are likely to assimilate news in a broad context whether or not it is explicitly defined as such, and the discussion of possible future research that follows is also presented on that basis.

Demographics

Several areas of demographics can be examined.

Age: The majority of experiments in the body of research used college age students as subjects. In fact student subjects were so common it could be argued that the exemplification effect is only established, or is at least dominant, within that demographic. The Gibson and Zillmann study (2000), which asked respondents to identify the risk of a disease among different ethnicities, included alumni within its subject group and noted that risk estimates by students were generally above those of alumni, suggesting that different age groups may respond in

different ways to exemplification. Memory heuristics suggest that those with more memories to draw on have a more accurate context in which to place new information, and that more memories are achieved with more life experience. People with greater personal experience are able to retrieve and construct their own counterexemplars to any exemplars they encounter. This raises the likelihood that exemplar effects would be less prevalent among an older age group than students. Testing the impact of exemplars on those with more accumulated life experience, or those with experience other than academic, is noticeably lacking in the literature.

Social/cultural groups: Research could certainly be done on representations of a specific populous. A 2008 thesis (Atwell, 2008) looked specifically at gay exemplars in an experimental setting, and this application could certainly be made to any specifically defined group. In a real-world sense, an analysis could be made of how any specific group is represented in examples and how examples are presented to them.

Gender: Aust and Zillmann's study (1996) on amusement park ride safety found a notable difference in responses between genders—female respondents assessed dangers and risks as greater than males both in general and personal terms, suggesting that the effects of emotion-laden exemplars have a greater effect on women "because of [their] greater empathetic sensitivity" (Zillmann & Brosius, 2000, p 98). However, this seems to be the only study where gender influence was monitored. Gender has not been studied in the experimental design to any significant length, although Zillmann and Brosius (2000) do indicate that empathy effects of emotion laden exemplars are stronger in women (p. 98). Having established that exemplars in magazine news are heavily male oriented, it would be interesting to run experiments to see if exemplar effect is different depending on whether the exemplar is female or male. Such an experiment may also reveal a salience effect based on the gender of exemplar and the gender of

the reader. Certainly the effects of exemplars on gender could be better studied, as could the effects of ratios of male and female exemplars presented to us in the media.

Salience: While exemplification effects on larger populations can be examined by experimental design, a significant part of the theory pertains to the circumstance of the individual. The effects of exemplars on an individual vary in accordance with the strength of their existing beliefs, their existing knowledge, and how salient and pertinent the exemplars are to that individual. Future research in experimental design can add a dimension of ascertaining existing beliefs and circumstances before measuring effects.

Distribution: Existing research has manipulated the number and ratio of exemplars. To the author's knowledge, multiple exemplars from the same source, but separated within the article, has not been tested and is worthy of future study. In this study each exemplar was considered unique—even if the same source was quoted several times in the same article.

Space: It is likely that a story with four exemplars, each of a paragraph, will dominate four counterexemplars each of a single sentence. Testing the impact of the amount of space (words, paragraphs, or column inches) given to each exemplar has been briefly studied in content analysis (Zillmann & Brosius, 2000), but the effects have not, to the author's knowledge, been tested in an experimental setting. In addition a study could be made of articles where an exemplar is enhanced in some way, such as a call-out.

Time and Mediums

A number of experimental designs measured exemplification effects over time, and suggest strong existing beliefs shorten the exemplar effect (Zillmann & Brosius, 2000), but the subjects were tested, at the most, 14 days after exposure to the test materials. This is long enough to establish that time effects are present in exemplification theory, but there has not been a

medium- or long-term trend study. A trend study could be conducted where a number of articles about the same topic are administered at specific time intervals, with a survey after each to see if perception change can be sustained over time.

Cultivation theory (Gerbner & Gross, 1976) suggests that our attitudes are an aggregate of all the messages we are exposed to, but exemplar experiments have largely been restricted to a single medium at a time. Exemplar studies should extend into studies of multiple channels of communication. In an experimental design the same story could be present via multiple channels with exemplar distribution varied to be mirrored in different mediums. Which channels have a greater exemplar impact could then be measured. In a real-world setting, comparative studies could be conducted for how a specific story is presented by different media. To date, exemplar studies have been largely in the area of print media, with additional experiments being conducted in radio and television, through these are few. Zillmann and Brosius (2000) surmise that "the degree of citation effects generally across modalities or media remains to be demonstrated" (p. 89) which suggests the research question "do different channels use exemplars in different ways?" The advent of the Internet certainly expands this research area. All the articles studied for this thesis are available online, and a cursory look at a couple by the author showed that while the text was largely the same, the images used in the online versions were fewer, if present at all.

Personal Factors

As has been noted, personal experience or expertise can change someone's perception of a news story from isolated to trend. Zillmann, Callison & Gibson (2009) record that people with "high arithmetic aptitude recalled frequencies and ratios more correctly…than did those of low aptitude" (p. 394). It can be expected, but needs researching, that anyone with an interest or aptitude in a certain subject will categorize articles about that subject differently. To a certain

audience base rate data may stand out more than exemplar data, even without perceptual enhancement. In the modern communication age much emphasis is placed on tailoring specific messaging to specific publics. Knowing which exemplar characteristics have more impact with a specific demographic would enable target messaging.

Non-news Studies

Exemplification research can be extended outside of the news environment. The 2007 Appel & Richter study focused on the effects of fictional narratives seeded with either true, or both true and false facts about real-world topics. This sort of study could be extended to any fictional narrative that identifies itself as having real-world facts included. By definition, entertainment media presents messages more in exemplar form than base rate form. With entertainment media we automatically assume the content to be largely fabricated, however, facts can be stated, and factuality is at least implied in films that are "based on a true story," or "inspired by real events." And yet many movies contain a disclaimer that any similarity to actual people or events is coincidental to protect themselves from legal action from those who, presumably, are affected by the exemplars portrayed. How people assimilate exemplars from entertainment media is an untapped area of study.

Further Content Analysis and Qualitative Research

This paper has sought to take some of the first steps to applying content analysis to real-world, non-manipulated news media, and there are many areas where the content analysis method can be applied. Firstly in the news arena, content analysis could be conducted at both national and local levels. It could also be conducted within specific genres such as health and safety, business and finance, international culture, politics etc., or even to a specific ongoing

news story. Niche markets could benefit from knowing which characteristics of exemplars are most influential to their readership.

While this study singled out news stories in magazines exemplars could be analyzed in the context of the entire publication, including all types of stories and sections.

Considering the findings this study made in terms of the many ways news is presented in real-world settings, qualitative methods such as textural analysis and case studies would provide further valuable insight into how exemplars are used in real-world settings.

Cross-cultural Exemplification

Most research to date has been U.S. or German based. There is certainly a need to develop exemplification in a cross-cultural context, with experimental designs, to see if the effects are different, and with content analysis, to see if they present exemplars differently.

Visual Exemplars

The existing research noted that visual exemplars have an important impact on readers, but the existing categories for visual imagery were found to be inadequate when coding for the present study. This study showed instances where the three Zillmann/Brosius categories of images—threatening, innocuous, incidental (Zillmann & Brosius, 2000)—were not exclusive. An image may be both threatening but taken from a file, meeting the requirements for two of Zillmann/Brosius's categories. This study attempted to better define images that may be seen in a news magazines but did not manage to achieve intercoder reliability in all areas so no significant conclusions can be drawn. However, the need to better establish these categories still exists so as to enable future content analysis.

An ongoing area of media effects research is that of desensitization, especially related to violent media. Bushman and Huesmann (2006) suggests that "violent scenes do become less

arousing over time" (p. 349) and this certainly has a relation to threatening visual exemplars—does a more frequent exposure to threatening images lessen the consumers perception of threats to others and/or themselves?

Base Rate Related Research

In preparing the current study it was noted that base rate data can be presented in visual ways, either with graphics or call outs. A small number of studies (Baesler & Burgoon, 1994; Krupat, Smith, Leach & Jackson, 1997) show that base rate information can have a greater, or even dominant, effect if it is somehow enhanced. Methods of enhancement (repetition, placement, graphical representation) could be further observed for effectiveness in an experimental design.

Applications of Exemplification Research

Exemplification studies can certainly be applied to specific industries. Zillmann (2006) considered the impact exemplars can have on issues of safety and health, how the industry can effectively use base rate and exemplars, and the known effects of exemplars that safety and health communicators should be aware of. By making studies industry specific and then making those results available to practitioners and professionals of that industry exemplification can have an important practical application in the real-world environment.

The impact of exemplification in the field of journalism was discussed at length earlier in this paper, but other areas of communication can be examined in terms of how they use exemplars. The element of salience, for example, is expected to be more prevalent in advertising since the messaging is deliberately geared to very specific demographics. And public relations—considered inherently non-representative in the information it distributes (Zillmann & Brosius, 2000)—should at least be aware on ethical grounds of exemplar effects. While research defines

the theory the future should hold some mechanism for distributing knowledge of exemplification theory and appropriate ways to apply it within those professions.

Finally, it is worth noting Zillmann and Brosius's (2000) discussion of the varying influence of the direct and the mediated experience. The strength of influence of the exemplars we consume varies with the format in which they are presented (fact, fiction) and how we receive them (first-hand experience, first-hand account, secondhand report etc.). They suggest that we "tag" exemplars we receive into certain categories and that those categories have varying influence. They conclude:

> It remains to be determined empirically whether exemplars tagged 'fiction' are without appreciable influence on judgments and dispositions, exemplars tagged 'news' have some degree of influence and exemplars tagged 'experience' exert unwavering influence (p. 18).

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Appendix A: Summaries of Research Evidence of Exemplification

The following summaries are quoted from Zillmann and Brosius (2000) and detail the conclusion of the research in exemplification up to that year in each indicated area.

Exemplar-counterexemplar distributions (p. 83-84)

1. The ratio of exemplars to counterexemplars of specific occurrences consistently exerts a dominant influence on the perception of these occurrences in the population under consideration. Exemplification of opinions and preferences, for instance, largely determines a corresponding perception of public opinion and preferences of the public.
2. Exemplar-counterexemplar ratios that correctly represent the population distribution of occurrences foster comparatively correct population estimates. Selective, entirely focus-driven exemplification fosters the least correct population estimates. Intermediate, blended distributions produce intermediate results. Representative exemplification of opinions and preferences thus may be expected to yield the most correct perception of public opinion and preferences of the public. Selective exemplification, in contrast, must be expected to yield the most distorted, incorrect perceptions.
3. The ratio of exemplars to counterexemplars exerts some degree of influence on personal opinion and preference. This influence is less consistent and generally less strong, however. It appears to be partial to judgments concerning taste, such as those concerning food preference.
4. The effects specified in (1) through (3) are medium-independent, as they apply to both print and radio presentations.
5. The indicated effects, especially those specified in (1) and (2), may persist for extended periods of time, such as over two weeks and potentially much longer. Enduring effects

may be expected in situations where prior beliefs about the addressed issue are vague or nonexistent. In situations where prior beliefs are firmly established, effects are likely to be short-lived.

6. Base-rate information, whether precise or vague, has minor, if any, effects on the perception of public opinion or on preferences of the public. Its influence is generally overpowered by that of exemplar aggregation. The within-text display of base-rate information is mostly inconsequential. There is indication, however, that base-rate repetition and concluding placement can give this information some degree of influence. Additionally, diminishing the persuasive strength of exemplars may enhance the relative influence of base-rate information.
7. Affinity between exemplified persons and recipients does not, in and of itself, enhance the effects of exemplification. Specifically, if similarity-dissimilarity does not covary with distinct appraisals of an addressed phenomenon, the degree of affinity appears to be without consequence for the perception of public opinion and preferences of the public.
8. Given the conditions specified in (7), the pictorial presentation of persons in exemplars does not appear to enhance the effects of exemplification.

Base rate influence (p. 86)

1. The influence of base rate information can dominate that of exemplification.
2. Base-rate domination is likely when the quantitative information is clearly articulated, perceptually enhanced, and when competing exemplar information is comparatively uninformative.
3. Base-rate dominance is likely when quantitative information has greater diagnostic relevance than exemplar presentation.

Citation as exemplar enhancement (p. 89)

Although the mediation of these citation effects remains unclear and in need of elucidation, the following generalizations of the effects are possible:

1. Exemplars that feature personal testimony exert a stronger influence on issue perception when the testimony is expressed in direct quotes than when it is paraphrased by the reporting agent.
2. At present, the citation effect specified in (1) appears to be specific to a reception mode (i.e., reading) or medium (i.e., print). The degree of the citation effects generality across modalities or media remains to be demonstrated.

Qualitatively distorted exemplification (p. 93)

1. Exemplification featuring atypical, spectacular, and sensational cases tends to foster distorted issue perceptions, even when supplemented with corrective base-rate information. Exemplification featuring rare and atypical occurrences invites the misperception of these occurrences as relatively frequent and typical, ultimately as normative.
2. The influence of exemplification that presents spectacular occurrences on issue perception can grow stronger over time, resulting in growing misperceptions.

Emotional displays of exemplars (p. 98)

1. News reports that engage the respondents' empathy with the display of aversive emotions by victims and their affiliates are likely to foster higher estimates of risks to others and to self than reports without such displays.
2. Empathetic sensitivity enhances the effect specified in (1).

3. The effect specified in (1) is stronger for women than for men, mostly because of women's greater empathetic sensitivity.
4. Emotion-laden exemplification is capable of influencing moral assessments of conduct. The portrayal of emotional upheaval and grief of victims, in particular, is likely to foster sympathy that, in cases where the victims committed transgressions, motivates leniency toward such victims.

Threatening images in exemplification (p. 105-106)

1. Threatening images, compared to nonthreatening ones, increase the perception of image-related risk to the public. The effect tends to persist over time. On occasion, the effect grows with the passage of time, thereby creating an absolute sleeper effect.
2. Threatening images, compared to nonthreatening ones, increase the assessment of image-related personal risk. This effect also tends to persist over time. The effect of nonthreatening images is less stable and deteriorates with the passage of time, thereby creating a relative sleeper effect.
3. The unopposed use of threatening images can lead to gross missassments of threatening conditions.
4. Threatening images appear to arouse curiosity and vigilance, thereby facilitating the acquisitions of information about threatening conditions.

Effects of innocuous images (p. 110)

1. The use of photographs with innocuous content in print news may have little effect on issue perception as long as recipients are cognizant of much of the information conveyed by the associated text. Over time, however, such cognizance diminishes, therefore

allowing the retained image to influence the perception of issues. With the passage of time, then, perception is likely to shift in the direction of image content.

2. Issue perception is influenced by the number of visually innocuous sources of information in broadcast news. Specifically, relevant incidence estimates and estimates of issue salience tend to increase with the number of sources—independent of the information that these sources provide. The linearity of this relationship is unlikely to extend to markedly larger exemplar numbers (i.e., above eight). The point at which their effect levels of is presently not known, however.

Incidental pictorial exemplification (p. 113)

The findings concerning the effects of incidental pictorial exemplification on issue perception suggest considerable influence. This influence may often be unintended, but it also can be used deliberately to shape the perception of occurrences within the public, especially within the strata of which it is composed.

1. The incidental use of image exemplars that add nonredundant, specific information to the text of a report does influence issue perception. Specifically, the incidental nature of the pictorial supplementation goes unrecognized and, as a result, is integrated with the narrative information in fostering perceptions and judgment.
2. At present, only short-term effects have been demonstrated. However, as the effects under consideration parallel those of deliberately employed threatening and innocuous images, long-term effects, even sleeper effects, may be considered to be likely.

Appendix B: List of Stories Coded

TIME magazine sometimes lists a shortened or different headline in its index to the one at the top of the actual article. Appendix B uses the magazines index title. * indicates article used in inter-coder reliability

September 09

	TIME			*Newsweek*		
date	story #		story code	story #		story code
7-Sep				1	A life	Sep09NW1
				2	What Teddy can teach us	Sep09NW2
14-Sep	8	Prairie revolt	Sep09t1	3	All the senators women *	Sep09NW3
	9	Can Arne Duncan (and $6bn) fix America's schools?	Sep09t2	4	He didn't like to lose	Sep09NW4
	10	A very murky business *	Sep09t3	5	Requiem for the right	Sep09NW5
	11	A shot at cancer *	Sep09t4	6	The five biggest lies in the health-care debate	Sep09NW6
	12	Jay Leno is shrinking your TV	Sep09t5	7	Why Obama needs to learn to love the bomb	Sep09NW7
	13	Curious capitalist	Sep09t6			
21-Sep	x					
28-Sep	x					

October-December 09

	TIME			*Newsweek*		
date	story #		story code	story #		story code
5-Oct	x					
12-Oct	14	An enemy within	Oct09t1	20	Containing a nuclear Iran	Oct09NW1
	15	A window on the war	Oct09t2	21	All options menu means all options'	Oct09NW2
	16	What should we do now: two views	Oct09t3	22	Deployments and diplomacy	Oct09NW3
	17	A long lost relative *	Oct09t4	23	It's a mad, mad, mad, mad world	Oct09NW4
	18	Get Homes off welfare	Oct09t5	24	peytonplace.com	Oct09NW5
	19	How Moses shaped America	Oct09t6			
19-Oct	x					
26-Oct	x					
2-Nov	x					
9-Nov	x					
16-Nov				25	The surprising lessons of Vietnam	Nov09NW1
				26	Beware the revolutionists	Nov09NW2
23-Nov	x			27	The year the world *really* changed	Nov09NW3
				28	What cocktails?	Nov09NW4
30-Nov	30	The fall of Greg Craig	Nov09t1	29	Fashion disaster	Nov09NW5
	31	The hell of PTSD	Nov09t2			
	32	Can an eagle hug a panda	Nov09t3			
	33	Talking with the Taliban	Nov09t4			
	34	Can these parents be saved	Nov09t5			
	35	Zynga harvests the cyberfarmer	Nov09t6			
7-Dec	x					
14-Dec	36	Obama's war	Dec09t1			
	37	Shrinking the war on terrorism	Dec09t2			
	38	Meg's run	Dec09t3			

	39	Where did reform go?	Dec09t4			
	40	A river ran through it	Dec09t5			
	41	Beyond Copenhagen	Dec09t6			
21-Dec				42	Obama's enforcer	Dec09nw1
				43	Iran's worst enemy	Dec09nw2
				44	Jobs are on the way!	Dec09nw3
				45	Joblessness is here to stay	Dec09nw4
				46	The secrets of stability	Dec09nw5
28-Dec		not included			not included	

January 10-March 10

	TIME			*Newsweek*		
date	story #		story code	story #		story code
4-Jan		not included			not included	
11-Jan	x					
18-Jan				47	Obama vs. Obama	Jan10NW1
				48	Our man in Yemen	Jan10NW2
25-Jan	54	Earthquake in Haiti	Jan10t1	49	Anatomy of a double-cross *	Jan10NW3
	55	The Double talking Cleric	Jan10t2	50	Don't panic	Jan10NW4
	56	Game change	Jan10t3	51	The recession generation	Jan10NW5
	57	Fighting AIDS	Jan10t4	52	The conscience of a conservative	Jan10NW6
	58	Detroit's school chief	Jan10t5	53	The conservative case for gay marriage	Jan10NW7
	59	Cows to the planets rescue	Jan10t6			
1-Feb	x					
8-Feb				60	Follow the leader	Feb10NW1
				61	The wisdom of crowds	Feb10NW2
15-Feb	66	The survivor	Feb10t1	62	The perils of prosperity	Feb10NW3
	67	Americas debt debacle	Feb10t2	63	Who you callin' rogue? *	Feb10NW4
	68	Mr. CBO	Feb10t3	64	The depressing news about anti-depressants	Feb10NW5
	69	11 Olympians to watch	Feb10t4	65	A doctor disagrees	Feb10NW6
22-Feb	x					
1-Mar	x					
8-Mar	x					
15-Mar	x					
22-Mar	x					
29-Mar	70	The economies toughest task *	Mar10t1	76	The gang that couldn't shoot straight	Mar10NW1
	71	Cross-examining holder	Mar10t2	77	Bibi's bluster	Mar10NW2
	72	Papal problem	Mar10t3	78	Leaning on Lula	Mar10NW3
	72	Less cheery, more woe	Mar10t4	79	We just need common sense'	Mar10NW4
	74	Homecoming	Mar10t5	80	It's a global problem'	Mar10NW5
	75	Statin trouble *	Mar10t6	81	Charles Moore, 1931-2010	Mar10NW6
				82	Are we there yet?	Mar10NW7

April 10-June 10

	TIME			*Newsweek*		
date	story #		story code	story #		story code
5-Apr	x					
12-Apr	83	Fallen hero	Apr10t1	91	The McCain mutiny	Apr10nw1
	84	Palin power	Apr10t2	92	The doomsday dilemma *	Apr10nw2
	85	Libya's heir apparent	Apr10t3	93	No one forgives anyone'	Apr10nw3
	86	Apple's next big thing *	Apr10t4	94	A woman's place is in the church	Apr10nw4
	87	iPad man	Apr10t5	95	What went wrong	Apr10nw5
	88	Special report: environment	Apr10t6	96	Regulate, baby, regulate	Apr10nw6
	89	Kitchen chemistry	Apr10t7	97	Chaos theory	Apr10nw7
	90	Pharma in the plumbing	Apr10t8			
19-Apr	x					
26-Apr	x					
3-May	98	Planes to volcano: no smoking	May10t1			
	99	The case against Goldman Sachs	May10t2			
	100	The Clegg Dance	May10t3			
	101	The side effects of the pill	May10t4			
10-May	x					
17-May				102	Fifty-three hours in the life of a near disaster *	May10nw1
				103	Containing terror	May10nw2
				104	Not your father's Taliban	May10nw3
				105	Slick operator	May10nw4
				106	How quickly we forget	May10nw5
				107	Bust up the banks	May10nw6
24-May	x					
31-May	x					
7-Jun				108	Black water rising *	Jun10nw1
				109	Don't fence them in	Jun10nw2
				110	Man in the middle	Jun10nw3

14-Jun	x		
21-Jun	x		
28-Jun	114	Dire states *	Jun10t1
	115	Holy drug war	Jun10t2
	116	From Russia with issues	Jun10t3
	117	Pokers new face	Jun10t4

111	Gaza on my mind *	Jun10nw4
112	Fast, loose, and out of control	Jun10nw5
113	These problems can be solved'	Jun10nw6

July 10 – Aug 10

	TIME			*Newsweek*		
date	story #		story code	story #		story code
5-Jul				118	Death on our shores	Jul10nw1
				119	Smart young and broke	Jul10nw2
				120	Order on the court	Jul10nw3
12-Jul	x					
19-Jul	121	Faster trains	Jul10t1			
	122	Cashing in	Jul10t2			
	123	Holy water	Jul10t3			
	124	The only child	Jul10t4			
26-Jul	x					
2-Aug	x					
9-Aug				125	With friends like these	Aug10nw1
				126	A past that still haunts Kabul *	Aug10nw2
				127	The power of zero	Aug10nw3
16-Aug	x					
23-Aug	128	FDA on the ropes	Aug10t1			
	129	Saving Sumo	Aug10t2			
	130	Carp Corral	Aug10t3			
	131	The longest yard sale	Aug10t4			
	132	Man of letters	Aug10t5			
30-Aug	x					

Appendix C: Coding Sheets

Coding sheet A: General data, Visual Content, Representation

Story Headline: Story code: Story #

Instructions

Attached is an article from a weekly US news magazine. First answer question 1 (if its answered 'no' coding for this article is finished). Please read it once to form an idea of the article focus, and mark the exemplars and the base rate data in the story. Answer questions 1 to 4, then fill out coding sheet B with details of the exemplars and the baser ate information. Use as many sheets as needed. Then answer questions 5-23.

General data

1. Is the article a non-news story? Y ☐ N ☐ (If Y, answer question 3 and coding for this article is finished)
2. What is the article focus?

3. Is the article author(s) credited as something other than a journalist Y ☐ N ☐

4. Select the subject predominantly represented in the article:

Politics and government ☐	War and defense ☐	Diplomacy and foreign relations ☐
Agriculture ☐	Transportation and travel ☐	Crime ☐
Accidents and disasters ☐	Science and technology ☐	Public health and welfare ☐
Education and classic arts ☐	Popular culture ☐	Economic activity ☐
Public moral problems ☐	Human interest ☐	Religion ☐ Other ☐

Now go through the article again, filling out sheet B with details of the exemplars and primary base rate data. Then answer the remaining questions below.

Visual Content

5. How many of the images illustrate any base rate data ___

Threatening

6. How many of the images are threatening ___
7. How many are threatening and clearly file images ___
8. How many are threatening and clearly staged for this article ___
9. How many are threatening and clearly manipulated ___
10. Total threatening images (10-11) ___

Innocuous

11. How many of the images are innocuous ___
12. How many are innocuous and clearly file images ___
13. How many are innocuous and clearly staged for this article ___
14. How many are innocuous and clearly manipulated ___
15. Total innocuous images (13-15) ___

Incidental

16. How many of the images are incidental file photos ___
17. How many of the images are clearly staged ___
18. How many of the images have been clearly manipulated ___
19. Total incidental images (total 16-18) ___

20. Other (images that don't fit into a category above) ___
21. Total number of images (add right column) ___

22. How many of the following does the article contain (totals from sheet B):
exemplars (of the article focus) ____ counter-exemplars____ Total____ N/A ☐

23. Are there more exemplars than counter exemplars? Y☐ N☐ N/A ☐

24. Would an average reader consider this article a single exemplar? Y ☐ N☐ N/A☐

25. Is there primary base rate data present in the story? Y☐ N☐ N/A ☐

26. How is the base rate data in the story presented (check one): NB this is any base rate data, not just primary.
text only ☐ graph ☐ graphic ☐ headline, subheading, tag or call out ☐ multiple methods ☐ N/A ☐

27. Is any base rate data presented a ratio? Y☐ N ☐ N/A☐

Representation

28. Overall, comparing the exemplars to the ***article focus***, are the exemplars in this article:
Selective (no counter exemplars) ☐ Blended (counter exemplars acknowledged) ☐
Representative (proportioned correctly) ☐ N/A ☐

If the answer to 27 was 'no' 29 and 30 are both N/A

29. Overall, comparing the exemplars to the ***primary base rate*** data given, are the exemplars in this article:
Selective (no counter exemplars) ☐ Blended (counter exemplars acknowledged) ☐
Representative (proportioned correctly) ☐ N/A (no base rate or not related) ☐

30. Was representative exemplification possible? i.e. Considering the primary base rate data given, was it possible to proportion the exemplars representativley? Y ☐ N ☐ N/A ☐

Coding Sheet B: Exemplars and Base Rate

Story code: story #: sheet number

Exemplars

E1 Briefly describe the exemplar
Paragraph # If this exemplar relates to prime base rate data below note which here:

Exemplar type (select one):	Quote ☐	Paraphrase ☐	Mixed ☐	Anecdote ☐	Hypothetical ☐
Exemplar source (select one):	Expert ☐	Public officials ☐	Victim/Subject ☐	General public ☐	Other ☐
Exemplar source gender:	Male ☐	Female ☐	Mixed ☐	N/A ☐	
Exemplar subject gender:	Male ☐	Female ☐	Mixed ☐	N/A ☐	

Does the exemplar express vivid emotion: Y ☐ N ☐ Is this a counter exemplar? Y ☐ N ☐

E2 Briefly describe the exemplar
Paragraph # If this exemplar relates to prime base rate data below note which here:

Exemplar type (select one):	Quote ☐	Paraphrase ☐	Mixed ☐	Anecdote ☐	Hypothetical ☐
Exemplar source (select one):	Expert ☐	Public officials ☐	Victim/Subject ☐	General public ☐	Other ☐
Exemplar source gender:	Male ☐	Female ☐	Mixed ☐	N/A ☐	
Exemplar subject gender:	Male ☐	Female ☐	Mixed ☐	N/A ☐	

Does the exemplar express vivid emotion: Y ☐ N ☐ Is this a counter exemplar? Y ☐ N ☐

E3 Briefly describe the exemplar
Paragraph # If this exemplar relates to prime base rate data below note which here:

Exemplar type (select one):	Quote ☐	Paraphrase ☐	Mixed ☐	Anecdote ☐	Hypothetical ☐
Exemplar source (select one):	Expert ☐	Public officials ☐	Victim/Subject ☐	General public ☐	Other ☐
Exemplar source gender:	Male ☐	Female ☐	Mixed ☐	N/A ☐	
Exemplar subject gender:	Male ☐	Female ☐	Mixed ☐	N/A ☐	

Does the exemplar express vivid emotion: Y ☐ N ☐ Is this a counter exemplar? Y ☐ N ☐

E4 Briefly describe the exemplar
Paragraph # If this exemplar relates to prime base rate data below note which here:

Exemplar type (select one):	Quote ☐	Paraphrase ☐	Mixed ☐	Anecdote ☐	Hypothetical ☐
Exemplar source (select one):	Expert ☐	Public officials ☐	Victim/Subject ☐	General public ☐	Other ☐
Exemplar source gender:	Male ☐	Female ☐	Mixed ☐	N/A ☐	
Exemplar subject gender:	Male ☐	Female ☐	Mixed ☐	N/A ☐	

Does the exemplar express vivid emotion: Y ☐ N ☐ Is this a counter exemplar? Y ☐ N ☐

E5 Briefly describe the exemplar
Paragraph # If this exemplar relates to prime base rate data below note which here:

Exemplar type (select one):	Quote ☐	Paraphrase ☐	Mixed ☐	Anecdote ☐	Hypothetical ☐
Exemplar source (select one):	Expert ☐	Public officials ☐	Victim/Subject ☐	General public ☐	Other ☐
Exemplar source gender:	Male ☐	Female ☐	Mixed ☐	N/A ☐	
Exemplar subject gender:	Male ☐	Female ☐	Mixed ☐	N/A ☐	

Does the exemplar express vivid emotion: Y ☐ N ☐ Is this a counter exemplar? Y ☐ N ☐

Prime Base Rate Data

BR1 Description
Specific ☐ Non-specific ☐ Mixed ☐
Paragraph #

BR2 Description
Specific ☐ Non-specific ☐ Mixed ☐
Paragraph #

BR3 Description
Specific ☐ Non-specific ☐ Mixed ☐
Paragraph #

BR4 Description
Specific ☐ Non-specific ☐ Mixed ☐
Paragraph #

Appendix D: Intercoder Results by Question

Questions	Holsti's Score
Coding Sheet A	
1. Is the article non-news	1
2. Article focus	NA
3. Is the article author credited as something other than a journalist	1
4. What is the article subject	.85
5. How many images represent bas rate data	.92
6. How many of the images are threatening	1
7. How many threatening file images	.85
8. How many threatening and staged	.92
9. How many threatening and manipulated	NA
10. Total threatening images	.77
11. How many of the images are innocuous	.46
12. How many are innocuous file images	.38
13. How many innocuous and staged	.54
14. How many innocuous and manipulated	NA
15. Total innocuous images	.38
16. How many incidental file images	.62
17. How many incidental and staged	.77
18. How many incidental and manipulated	.85
19. Total incidental	.62
20. Other images	1
21. Total images	.62
22. How many exemplars/counterexemplars	NA
23. Are there more exemplars than counterexemplars	1
24. Is the article a single exemplar	.92
25. Is there primary base rate data present	.77
26. Is there perceptually enhanced base rate	.69
27. Is base rate a ratio	.77

28. Are exemplars representative of article focus	.77
29. Are exemplars representative of base rate	.69
30. Was representation possible	.69

Coding Sheet B

1. Does the exemplar relate to base rate	.76
2. Exemplar type	.65
3. Exemplar source	.76
4. Exemplar source gender	.8
5. Exemplar subject gender	.73
6. Is vivid emotion present	.97
7. Is it a counterexemplar	.93

Note These results are based on 15 articles (11%) of the random sample. Holsti's requires an agreement of .7

Appendix E: Coders Manual and Operational Definitions

Coding Manual

This coding manual details instructions for coding questions for sheet A then for sheet B where the exemplars and base rate data are recorded.

After a few test articles it was found beneficial to first answer question three, then read the article a first time looking to identify the article focus (question two), and possibly marking exemplars and base rate data, while being conscious of question one—a specific statement saying the article was an opinion. Questions 1-19 were answered after the first read through.

A second read of the article was done to identify and code exemplars and base rate data on sheet B. Then the remainder of the questions on sheet A were answered.

The operational definitions will cover the majority of circumstances you come across, however, in the event of any ambiguity ask "What impression is a reasonable reader likely to take from this article/statement/exemplar/picture?" In most cases the answer to this will present a clear way to code.

Coding Sheet A

(Each article uses one sheet A)

1. Is the article a non-news story?

The focus of this study is news stories. All articles in the study have been taken from the "news" sections of the respective magazines. This question is answered yes if the article is clearly not news. This includes opinion pieces, book excerpts, interviews, reviews, or a statement within the article where the author explicitly states they advocate a certain position or that the piece is opinion. The default position is to try and code all articles, however if the answer to this question is clearly "yes" then answer question three and coding for this article is complete.

2. What is the article focus?

Describe the single dominant focus of the article—consider the headline, the introduction, the exemplars, and determine a single dominant article focus to define. Only code exemplars about this focus.

3. Is the article author credited as something other than a journalist?

If an article is by a non-journalist there is normally a by-line (though not necessarily under the headline) stating what this author is i.e., a university professor, a politician etc. For this question to be answered "yes" *all* authors must be identified as non-journalists. If any of the authors listed for the piece are journalists, the answer to this is "'no". Photo journalists are considered journalists.

4. Select the subject predominantly represented in the article

Some stories fall into more than one category, select the one that you consider to be dominant.

Visual Content

Ignore advertisements published alongside the article. For help in categorizing pictures look for attributions to a person or photobank (i.e., Getty images) normally credited at the side of the article somewhere. For this study, captions next to images are not considered when coding. For definitions of "file" and "staged" see the operational definitions section.

5. How many of the images illustrate base rate data?

Graphs, pie charts, etc. that show any kind of base rate data. This would include any kind of photo manipulation or illustration that features prime base rate data.

6. How many of the images are threatening?
7. How many of the images are threatening and clearly file images?
8. How many are threatening and staged for this article?
9. How many are threatening and manipulated?
10. Total threatening images

A threatening image is one of the actual event or person under discussion where someone is being visibly restricted, suffering, threatened, etc.

11. How many of the images are innocuous?
12. How many of the images are innocuous and clearly file images?
13. How many are innocuous and staged for this article?
14. How many are innocuous and clearly manipulated?
15. Total innocuous images

An innocuous image is one that of the actual event or person under discussion where no one is being visibly threatened.

16. How many of the images are incidental file images?
17. How many of the images are obviously staged for this article?

N.B. If an image is clearly staged but its subject is the person or event under discussion it is coded as innocuous, not incidental.

18. How many of the images have obviously been manipulated?
19. Total incidental images

20. Other images that don't fit into the categories above.

21. Total images

22. How many of the following does the article contain?

Add these totals from sheet B

23. Are there more exemplars than counterexemplars?

24. Is the article about a single exemplar only?

If a different point of view is stated, the story is not about a single exemplar. If the article focus is about an event rather than viewpoints (e.g., a profile of an individual) and the great majority of the article is about that exemplar/event (most likely including the headline), it should

be coded as a single exemplar article, even if other, minor, exemplars or counterexemplars are present because a reasonable reader would consider it such.

25. Is there primary base rate data present in this story?
    See operational definitions for details on base rate and primary base rate data.

26. How is the base rate data represented?

If the article contains any base rate data, regardless of if its prime base rate or not, how it is presented is coded here. The other options assume it is present in the text as well as another method. Choose multiple methods if there are several graphics that present using combinations of graph/graphic/call-outs etc.

27. Is the base rate data presented ratio?
    This can be an obvious ratio (such as one in four), or it can be derived (60 percent and 40 percent).

Representation

28. Overall, comparing the exemplars to the ***article focus***, are the exemplars in this article:
    Selective (no counterexemplars) Blended (counterexemplars acknowledged)
    Representative (proportioned correctly) N/A (not measurable)

29. Overall, comparing the exemplars to the ***primary base rate*** data given, are the exemplars in this article:
    Selective (no counterexemplars) Blended (counterexemplars acknowledged)
    Representative (proportioned correctly) N/A (not measurable)

N/A is the correct response when the base rate data does not match the exemplars in such as way that the question can be answered.

30. Was representative exemplification possible? i.e., Considering the primary base rate data given, was it possible to proportion the exemplars proportionately with the base rate data?

Coding sheet B
(use as many sheet B sheets as needed)

Each sheet has room for five exemplars—number these on subsequent sheets. Visual exemplars are *not* coded on sheet B.

Exemplars
Briefly describe the exemplar:

Exemplars are short narratives that illustrate a part of the focus of the article. Lots of exemplars in quick succession and little detail i.e., a list of nine Popes mentioned in a single paragraph can be coded as one exemplar *if* doing so does not misrepresent exemplars and counterexemplars. If this exemplar relates to base rate data (recorded at the bottom of the sheet) note which (B1, B2 etc.).

Exemplar type:

Quotes from an identified source, either direct or paraphrased, comprise the first three possible responses. Anecdotes are described events, stories, or historical examples that are not credited as quotes. Anecdotes can include quotes, consider the balance of anecdote to quote and code whichever seems dominant. Anything due to happen in the future is hypothetical. Exemplars from official documents are coded as anecdotes.

Exemplar source:

This is where the exemplar comes from. Public officials includes those that are running for office and those that once held office. General public are by-standers, eye-witnesses. Subjects are those whom the article is about. The "other" category includes ambiguous sources, family of the subject and also events, official documents, or an observation by the journalist. If more than one of these sources contributes to an exemplar code which is dominant in terms of credibility, if that's not clear code "other." Presidents and CEO's of companies are considered experts in their respective industries, as are religious leaders. If a public official is the subject, code subject.

Exemplar source gender:

Records the gender of the person giving the exemplar. If the source is unattributed, not clear (i.e., "the people I spoke to said…") or if the source is not a person (i.e., official document) record N/A. Also if it is clearly a first person recounting by the journalist record NA.

Subject gender:

Records the gender of the subject of the exemplar. Use the N/A category if there is no gender stated; if it's a company, corporation or organization (including branches of government); or if the group could conceivably be just one gender (i.e., "150 miners were laid off"). Use mixed if it is a group of people (of any size) that would obviously be mixed (e.g., American taxpayers, Europeans).

Does the exemplar express vivid emotion?

This can be a representation of any emotion—apology, anger, regret—that is exhibited with vivid language (i.e., "shaking with fear" vs. "scared"). Both positive and negative emotions can be vivid.

Is this a counterexemplar?

After identifying all exemplars related to the articles dominant focus, do any of them state different points of view? You will only have an idea of this after reading the article once, or when reviewing the various exemplars you've coded.

Base rate

A brief description of primary base rate data.

Operational Definitions

Article focus: The dominant theme of the article (not necessarily the headline). This is the overall theme of the article.

Exemplar: Any narrative or descriptive elements that are examples of the article focus. These include: interviews, stories, events etc.

Base rate data: Anything described in terms of quantity.
Two types:
- Specific: 75% of people agree, 18 people were injured
- Non-specific: most people agree, several people were injured

Prime base rate: The base rate data in the article that is the most relevant to the exemplars in the article.

Subject categories

Choose the single subject that is dominant in the article

Politics and Government Acts	Government acts and politics at local, state and national level
War and Defense	War. Defense, rebellion, military use of space. Includes both foreign and domestic stories
Diplomacy and Foreign Relations	Both foreign and domestic items dealing with diplomacy and foreign relations. Includes United Nations
Economic Activity	General economic activity, prices, money, labor, wages and natural resources
Agriculture	Farming, farm prices and economic aspects of agriculture
Transportation and Travel	Transportation and travel, including economic aspects
Crime	All crimes stories including criminal proceedings in court.
Public Moral Problems	Human relations and moral problems including alcohol, divorce, sex, race relations and civil court proceedings
Accidents and Disasters	Both manmade accidents and natural disasters
Science and technology	Science other than defense related and health / medicine related
Public Health and Welfare	Health, public welfare, social and safety measures, welfare of children and marriage and marriage relations
Education and Classic Arts	Education, classic arts, and philanthropy
Popular Culture	Entertainment and amusements, newspaper reporting. TV, radio and other media
General Human Interest	Human interest, weather, obits, animals, cute children and juvenile interest
Religion	Religious beliefs, practices, leaders, the place of religion in the world
Other	Subjects that do not readily fit into one of the categories above

Exemplar type

Quote:	Direct quote from the exemplar
Paraphrase:	A summary of what an exemplar said.
Mixed:	A mixture of quote and paraphrase
Anecdote:	A short account of an event. Anecdotes can include quotes, but if the quote is considered dominant, code as a quote. Any exemplar from an official report of some sort is coded as an anecdote.
Hypothetical:	A "what if" or imagined circumstance used as an example.
Vivid emotion:	An exemplar where an emotion is clearly displayed.
Counterexemplar:	Examples illustrating an opposing condition to the story focus. In rare cases both an exemplar and counterexemplar can appear in the story as part of the same sentence. i.e., "president Omar Hussan al-Bashir…said he will respect the vote, but his army and the SPLA have both been rearming." Code what you consider a reasonable reader would perceive.

Exemplar subject

Expert:	Someone with an obvious qualification in the topic they address, either academic or experience. This includes corporate positions.
Public official:	Someone holding a political office, elected or otherwise. Also a job that serves the public good (policeman, military leader).
Victim/subject:	A person that represents the article topic. If a quote source is the subject *and* a public official or expert code as being subject.
General public:	Eyewitnesses, person on the street opinions.
Other:	Exemplars that are not attributed, or events with no human subject. If an exemplar quotes another person, tells another story etc. code for just the initial exemplar.

Visual Exemplars

Threatening images:	Image of actual event or person(s) under discussion where someone is being visibly restricted, suffering, threatened, etc.
Innocuous images:	Image of actual event or person under discussion where no one is being visibly threatened.
Incidental images:	Images that represent the topic under discussion in general terms i.e., school children rather than children from a specific school.
File photo:	An image that relates to the article focus, or is representative of it, but is not of the specific event under discussion. It can be of the subject/person under discussion if it is obviously a file photo.
Staged images:	Illustrations/artwork and photos commissioned specifically for an Article, or a file image that was clearly posed. e.g., an article that features mothers wrapping kids in bubble wrap accompanying a story about overprotective parents. Tables of text only are not coded as images.
Manipulated images:	An image where photo manipulation software has clearly been used. This includes photo/art combinations. Where a number of separate

images (usually around eight or less) are somehow connected (i.e., a collage), code each individual image separately unless there are just too many images, then code as a single image.

Images showing base rate data: All images (graphs, maps, timelines etc.) where any kind of base rate data is shown.

Exemplar Representation

Selective: Distribution where all exemplars are consistent with the story focus (i.e., no counterexemplars).

Blended: Exemplar distribution that addresses both minority and majority cases, but does so in a somewhat selective, nonrepresentative fashion.

Representative: Distribution that correctly represents the proportions of minority and majority cases.