The Linguistic Expectancy Bias and the American Mass Media

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Abstract

Socially salient information (such as stereotypes and expectancies) can be transmitted amongst individuals in a variety of subtle ways. One of these is the Linguistic Expectancy Bias (LEB), in which patterns of linguistic abstraction indirectly indicate a speaker's attitudes toward a target. The LEB is a common feature of human communication, but research on it has largely been limited to the laboratory; its presence in news media reports is not well-studied. In three studies, I investigate the operation of the LEB in the print media domain. In the first, published reports of NFL games between intercity rivals were analyzed to determine whether or not hometown teams receive more favorable linguistic treatment than hated rivals; results indicate no evidence of a systematic LEB effect. In the second, news reports about the 2004 Presidential election were examined for differential coverage based on the party membership of the candidates, with no evidence of linguistic bias discovered. In the third, participants were exposed to a description of a politician that varies in the levels of abstraction used to describe his actions and asked to form impressions of him. Linguistic bias was found to have a subtly paradoxical effect, such that bias against a candidate resulted in greater explicit and implicit liking for him. Implications for both the social psychology and political science literatures are discussed.

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Chapter 1: Introduction

Language has long been believed to mold human thought. Whorf (1964), for example, proposed that languages and historical events influence each other and are influenced in turn; as a result, a culture's customs toward objects might be better understood by first understanding how those objects are labeled and perceived by its members. On a more individual basis, Vygotsky (1986) recognized that not only do words have a meaning that is inseparable from thought, but that language IS thought—and thus a central, direct expression of human consciousness. Although language is a critical component of the human animal, useful as a tool for understanding the world and as a strategic weapon against it, its contributions to human cognition are frequently overlooked by social psychologists. This is a grave error, as language has been shown to exert a significant impact on behavior. It has the ability to greatly influence decision-making (Tversky & Kahneman, 1981); it can alter perceptions of and reactions to the social and physical worlds (Loftus & Palmer, 1974); it can even change the history of nations (Luntz, 2007). The shape of one's language may indicate that an individual is a member in good standing of a group important to his or her identity; it may also allow group members to protect their group in subtle ways. Without a thorough understanding of language, scientific understanding of many complex issues is of necessity limited; applying language-based techniques to difficult problems is critically important in the continuing refinement of those techniques and the science behind them. Linguistic techniques are therefore extremely valuable to psychology.

One such technique is the application of the Linguistic Category Model (LCM; Semin & Fiedler, 1988, 1989) to decipher attitudes toward a given subject based on the

language used to describe it. The LCM divides descriptive language into four major categories, all systematically varying in abstraction and thus the amount of information they convey. The first category, *descriptive action verbs* (DAV), is the most concrete and easiest to visualize. "John hugs Jane," for example, describes a single action with invariant physical features; it would be very easy to imagine their interaction on the basis of the verb of this sentence. The second category, *interpretive action verbs* (IAV), while still describing a single, limited instance, adds meaning and context to their interaction, as in the example, "John greets Jane." "John missed Jane" represents the third category, *state verbs*; no longer describing a single action, this sentence also provides an insight into John's state of mind that can help explain his actions. Lastly, the fourth category, "John is affectionate," is composed of *adjectives* (ADJ); higher-order descriptions such as nouns and adverbs are also included in this category, though further subdivision is possible (Carnaghi et al., 2008; Hamilton, Gibbons, Stroessner & Sherman, 1992; Hampson, John & Goldberg, 1987; McGraw, Fischle, Stenner & Lodge, 1996). This most abstract class of language conveys more about John's character than a single embrace might suggest.

All four of these examples are factually accurate descriptions of John's behavior, but carry with them very different implications for the impressions that a respondent may form of him. In general, message recipients interpret more abstract descriptions of potential targets as better descriptors of a target's personality, while concrete descriptions are considered less informative (Wigboldus, Semin & Spears, 2006). Abstract descriptions are thus understood by message recipients to represent the enduring qualities of an individual, while concrete descriptions are instead understood to describe transient

states of affairs.

Linguistic abstraction can be strategically recruited by the generator of a message to convey certain information about the target of that message, although this is not immediately apparent to the average communicator or in the average communication (von Hippel, Sekaquaptewa & Vargas, 1997; Maass, 1999; Franco & Maass, 1999; Douglas, Sutton & Wilkin, 2008). In intergroup settings, members of an ingroup may inadvertently display their attitudes toward a member of that ingroup or a member of a competing outgroup by varying their language systematically; this linguistic transmission is called the Linguistic Intergroup Bias (LIB; Maass et al., 1989). Members of favored ingroups are described so that their positive qualities are considered to be trait-like, while negative qualities are mitigated and made to seem like isolated, state-like incidents. Members of other groups are described in the opposite fashion, receiving little credit for their good deeds and entirely too much credit for their bad ones. The LIB is generally considered a subsidiary offshoot of the more general Linguistic Expectancy Bias (LEB; Maass, Milesi, Zabbini & Stahlberg, 1995; Karpinski & von Hippel, 1996), which occurs even when intergroup conflicts are not in evidence. The LEB operates when one holds expectancies about a given individual's actions; expectancy-consistent information is described more abstractly than information that violates established expectancies. As one generally feels more positively toward members of one's ingroup than of an unfamiliar outgroup, the LEB can operate in an intergroup context as well, and has been found to do so in both Eastern and Western cultures (Maass et al., 1989; Maass, 1999; Tanabe & Oka, 2002).

Though the LEB has been shown to exist in a broad variety of laboratory contexts,

and with both nominal and socially-salient groups, it has not yet been deeply explored in natural communicative settings. Such explorations are necessary so that researchers may make use of and analyze linguistic abstraction information in social settings; without a better understanding of how the LEB operates *in vivo*, its broader applications are limited. While laboratory-based studies have been (and will continue to be) crucial in delineating this phenomenon, it is critical that we extend this knowledge to other contexts to move the field forward.

One potentially rich source of such information is the mass media, and in particular the print media; it may be a very productive field for linguistic research. The media have significant power to shape the understanding of the people who consume their messages (Harris, 2004), and this has obvious consequences not usually present in an artificial setting. The transmission of social stereotypes through media messages has been well-documented over time (e.g. Mercurio & Filak, 2010), and in fact increased exposure to the media has been shown to enhance Americans' tendency to use the LEB against African-Americans (Gorham, 2006). However, despite its suitability, the presence of the LEB itself in the American mass media has not been well-evaluated, with only one study (Schmid, 1999) analyzing American publications, and even then it only concerned itself with professional wrestling fan magazines. Likewise, though some studies have investigated the attributions (dispositional versus situational) made by recipients of messages that vary in abstraction (Wigboldus, Semin & Spears, 2000), the impact of linguistic abstraction on higher-order effects about the target (such as liking) remain unknown. Lastly, while message recipients have the ability to discern the motives and biases of a speaker from his or her pattern of linguistic abstraction (Douglas & Sutton,

2006), it is not clear how recipients might make use of the information gathered from such a biased source. All of these gaps in the LEB literature could be addressed by the use of a broader media sample, and could provide several interesting avenues for future research beyond what has been listed here. In turn, applying the LEB to such a sample could aid in the investigation of another issue: pervasive perceptions of partisan media bias.

Media bias: An American tradition. Throughout most of its history, the American media were explicitly partisan (Sheppard, 2008); until the early Cold War era, the role of the journalist was not to impartially report, but to persuade, and journalists were more than happy to shoulder this burden. Understandably, partisans and politicians have long been concerned over the effects of a biased media, and research into political media effects indicates that these concerns are well-founded (Babad, 2005; Druckman & Parkin, 2005; Dellavigna & Kaplan, 2007; Gerber, Karlan & Bergan, 2007). While the media may not have direct influence over public beliefs on particular topics—they cannot *create* beliefs and behaviors—their indirect ability to *shape* those beliefs and behaviors can be quite strong (Harris, 2004). Media positions that favor one party or viewpoint over another may privilege those parties unfairly, making rational debate difficult to achieve.

In addition, when citizens are concerned about media bias, this has negative implications beyond the obvious costs to information gathering. Individuals who observe media bias against their position are primarily offended by these portrayals because they are concerned that members of other groups may believe that these distorted descriptions are true; they are concerned that other groups will form a negative impression of their group, and that their group will suffer repercussions as a result (the so-called "third

person effect"; Davison, 1983; Gunther & Storey, 2003). This concern can increase the salience of undesirable or irrelevant intergroup conflicts, and may alter one's estimate of public opinion on a particular topic (Gunther & Chia, 2001). Individuals who believe that the media are hostile to them also show greater evidence of societal alienation (Tsfati, 2007) and, in extreme cases, may express more willingness to use force to resist policies that disadvantage their group, even if such policies were obtained democratically (Tsfati & Cohen, 2005). Perceptions of media bias may have long-lasting, pernicious effects that extend beyond simple persuasion.

Perhaps influenced by partisan elites' claims of bias, a large proportion of the American population believes that the media are biased, and this proportion has only increased over time (Watts, Domke, Shah & Fan, 1999; Pew Research Center for People and the Press, 2009; Ladd, 2010). Belief in bias is particularly prevalent amongst conservatives and political independents (Lee, 2005), although it is by no means absent on the left. But despite the popular prominence of this belief, scientific inquiries into partisan media bias have not been able to systematically demonstrate the existence of such bias. No unified theories of bias exist, and the results of empirical investigations of bias have been inconsistent and depend heavily on the methodologies used. The best-designed long-term studies (Niven, 2002; D'Alessio & Allen, 2000, 2007; Adkins-Covert & Wasburn 2007, 2009) find no systematic partisan bias in favor of either party, even when bias against members of politically-weak minorities does exist.

Thus, there is a rift between popular perceptions of the media and the scientific literature on the subject. This inconsistency must be resolved if we hope to better understand the matter. If the media truly are unbiased, as many in the media claim to be

the case, then belief in bias must stem entirely from some external or psychological source (Domke, Watts, Shah & Fan, 1999; Wall & Bicket, 2008); it seems unlikely that even copious self-castigation by journalists can change perceptions that they are biased, no matter how tempting it is to publish these stories (Watts et al., 1999; Niven, 2002). On the other hand, if the media are biased in ways that traditional scientific methods have not been able to measure, then at least part of the problem could be mitigated by changes in the way the media report stories. Given the currently underdeveloped state of the scientific literature on the subject, it is impossible to say for certain which is the true state of affairs, and more study is needed to address these issues.

The current research is an attempt to expand both the literature on linguistic abstraction in general, and the LEB in particular; it would also expand the literature on political media bias through the use of a methodology inspired by psychological, rather than political-scientific, research. Despite psychology's long history of plumbing the hidden depths below the surface of social life, no previous research into media bias has employed techniques derived from this discipline. Instead, previous research has generally relied on relatively straightforward assessments of an article's tone and topic. Psychology, with its emphasis on how individuals come to understand and interact with the world around them, has much to offer other fields that concern themselves with a much broader level of analysis. Direct psychological measures are often vetted extensively in an attempt to avoid providing social desirability cues to the respondent; indirect assessments like the Implicit Association Task (IAT; Nosek, Greenwald & Banaji, 2007) and allied measures have been used to reveal cognitive associations that would have otherwise remained unknown and unknowable. A linguistic technique

grounded in psychological science like the LEB might reveal subtler, more nuanced expressions of media bias, which might in turn reveal possible mechanisms by which an audience decides that a given outlet is biased.

Due to its subtlety, the LEB is difficult to control under normal circumstances (Douglas, Sutton & Wilkin, 2008), but it can be perceived fairly readily by message recipients, who are able to make inferences about both the subject of a message and the person who created it (Douglas & Sutton, 2006). This suggests that it could be a worthwhile measure of American media bias, which appears to be a product of both a reporter's story and the audience's reaction to that story. American journalists skew to the left politically (Pew Project for Excellence in Journalism, 2008); though their professional norms of objectivity may prevent them from conveying bias overtly, covert bias could easily leak out in the ways in which they describe politicians of various parties. A Democratic journalist may use greater abstraction to describe the positive activities of a Democrat than of a Republican without actively intending to privilege the descriptions of the Democrat, and vice-versa for scandals and embarrassments. In turn, the audience for those descriptions may infer the author's political leaning from those linguistic patterns, although they may not necessarily be fully aware of how they arrived at that decision.

Several open questions in both psychology and political science might be answered by the use of such a method. Investigating the LEB in a real setting with real stakes would extend our current knowledge beyond the laboratory, and might provide insights as to when the bias operates and when it might be successfully inhibited. If the LEB is shown to exist in the print media and to be exhibited in favor of one party over

another, then it would partially explain both the level of belief in media bias and the general lack of bias findings in the scientific literature, which do not generally make use of such a fine-grained analysis. If the LEB is not found, then it is further evidence that the media are truly unbiased, and suggests that the widespread belief in bias must have causes beyond the simplest explanation for it. The LEB therefore makes a good case for its use in this instance.

However, despite its suitability for the purpose, to date no study has been done of linguistic abstraction in the mainstream American media, and little work has been done on the LEB's manifestation in the media in any country. The extant literature on the topic is, fortunately, promising. Articles published in American wrestling fan magazines demonstrated the LEB for both heroic and villainous wrestlers (Schmid, 1999); though the example is trivial, the black and white nature of professional wrestling—and sports in general—provides an ideal habitat for the LEB. The LEB has also been demonstrated in other Western, non-American, media, particularly in times of intense intergroup conflict such as wars and violent civil actions (Maass, Corvino & Arcuri, 1994; Ng & Tait, 1994; both cited in Maass, 1999). While concrete language predominates in news reports, its usage is particularly pronounced when reporters describe negative in-group and positive out-group behaviors (Maass, 1999), indicating that although the classic LEB pattern may be altered somewhat by the conventions of reportage, it does not seem to disappear outright.

The current research is an attempt to better understand the operation of the LEB in print media communication, as well as its effects on message recipients' perceptions of biased messages. In three studies, I attempt first to show that the LEB is generated by

professional members of the American print media in the course of their work; second, to investigate whether or not it exists in political reports; and third, to demonstrate some of the LEB's potential effects on audience members. The following studies are meant to shed light on how the American print media operate and how their audience comes to understand them, while simultaneously extending the linguistic abstraction literature to an entirely new domain.

Chapter 2: Archival Analysis of NFL Reports

The first study is intended to investigate whether or not the LEB can be found in mainstream American newspaper reports. Though it is reasonable to expect to find this bias in American media reports in general (owing to the robustness of the effect across cultures and situations), a test of this assumption has never formally been made. The only similar study was conducted on reports published in wrestling fan magazines (Schmid, 1999), which found that "face" (virtuous) and "heel" (villainous) wrestlers were described most abstractly when their actions were in keeping with their expected characters (positive actions for faces, and negative for heels). However, such specialized hobbyist outlets may have different journalistic norms and standards than do outlets serving a wider audience. Before investigating whether the LEB is expressed in political journalism, it is important to first demonstrate that it is expressed in the mainstream American media under conditions where it would normally be expected—without this test, it would be difficult to say whether a lack of LEB in political reports is due to a genuine lack of bias or to methodological error.

Intergroup biases are very likely to manifest themselves in sports reporting (Study 1, Maass et al., 1989; Maass, 1999), as sports reporting offers an ideal breeding ground for such biases. Sports involve well-defined, time-limited events with clear rules and clear expectations for success or failure; relatively little ambiguity is present in games compared to political or cultural news. Rivalries are common between cities, and in many sports can last for years or even decades, intensifying the salience of ingroup and outgroup membership. In addition, while there is a strong professional norm and an

audience expectation of objectivity for hard news journalists, no such norm exists for sports news. The audience expects a certain amount of "homerism," or hometown pride, from its newspapers, and some members may even select those outlets that exhibit the same amount of pride in local teams as they do. It is therefore natural to expect that the LEB would exist in American sports journalism.

In order to test this assumption, the first study examined the use of the LEB in newspaper reports of National Football League (NFL) games. The NFL was selected as a test case for several reasons. First, football is the most popular televised sport in America by a wide margin (Jones, 2008). Second, the NFL is home to many extremely strong intercity rivalries, some of which date back nearly a century; such longstanding rivalries are likely to carry with them intense intergroup sentiments. Third, NFL teams meet infrequently compared to teams in other sports, and only one game is played per week; this allows both fans and journalists more time to anticipate the next game and form expectancies for its outcome than they might have if they were following basketball or baseball. These stronger expectancies may enhance the expression of the LEB.

While the same qualities are true of college football, the college game has several points against it. First, interest in college football varies by region; the NFL has broader, truly national appeal. Second, both reporters and the fans in a given area may be heterogeneous in their liking for a college team, particularly in areas with split loyalties (such as North Carolina, home to Duke, the University of North Carolina, and North Carolina State); even in homogeneous areas, a reporter may not be an alumnus of the team he or she is covering, which may alter the expression of the LEB if the reporter feels no special loyalty to the local college. This is not as great a concern with NFL games, as

a reporter for the local newspaper is likely to be a fan of that area's team.

I expect to find that a newspaper's hometown team will receive favorable coverage after a game, with positive actions being described more abstractly than negative actions, while the rival of that team will be denigrated in ways consistent with the LEB, with negative actions being described abstractly and positive actions concretely.

Methods

Two research assistants who were familiar with the game of football were trained in the application of the LCM (Coenen, Hedebouw & Semin, 2006) to articles about games played between strong rivals in the 2009 NFL season. Both coders were native speakers of English and were blind to the source of the articles; they were trained for several weeks until each reached 90% agreement with the lead researcher on three consecutive training articles.

Materials. *NFL articles.* Ten NFL rivalries were selected from lists of prominent NFL rivalries (Johnson, 2008; SportsIllustrated.com, 2005; Iyer, 2009; Snyder, 2009). With one exception (the Green Bay Packers), once a team was selected as part of a rivalry pair, it was excluded from being selected again in order to maintain statistical independence. Newspapers for each team were then assigned; in most cases this is the largest newspaper by circulation in the team's metro area. The full list of teams and newspapers can be found in the Appendix.

Articles about games played between each rivalry pair in the 2009 NFL season were retrieved from LexisNexis Academic (or from the newspaper's website archive when LexisNexis did not have access to those articles). To be included in the study, articles had to be written by a staff reporter for the newspaper, and represented the first

general factual account of the game published by the newspaper after the game was finished. A total of 20 articles, one per newspaper, were selected. In most cases, the game selected was the first regular-season meeting between the pair. For some rivalries (Vikings/Packers, Steelers/Ravens, and Chargers/Broncos) this was not feasible because of certain external issues that altered coverage, so the second game was selected instead. Ten Associated Press reports were also included in the study in order to establish a baseline level of bias. Since they are aimed at a more general audience, they are less likely to show overt bias for a given team. However, because of the nature of the AP (a loose network of reporters stationed across the country), reporters appear to be assigned to cover a game based on the geographical region in which they work, which suggests there may be a bias for the home team; this sample is not a perfect baseline, but it is the best option under the circumstances.

After the articles were downloaded from the Lexis-Nexis database, they were prepared for ease and consistency of coding. Each sentence was numbered and listed separately; the evaluative component(s) of each sentence were then highlighted by the lead researcher so that all coders interpreted the same portion of each sentence. Once adequately prepared, articles were printed and coded by hand so as to provide a hard copy of the coding.

Coding system. Coders were trained to use the two-part LCM Coding Manual (Coenen, Hedebouw & Semin, 2006) to identify the level of abstraction of verbs and adjectives describing the direct actions of a member of each team. Actions were only coded if the predicate was a person or team; statements such as "The touchdown gave the Dolphins the lead" were not coded as they were phrased impersonally by the reporter.

The valence of each word or phrase was also recorded (positive, negative, or neutral). In keeping with the recommendations of the LCM manual, metaphors, nouns, and adverbs are all coded as adjectives, while quantifiers (such as "always") are not included in the coding scheme. Coders' ratings were combined into a single composite score to resolve discrepancies.

Results

I expect to find an interaction between the valence of the action and the team. Positive actions performed by the hometown team will be described more abstractly than positive actions performed by the rival team, and negative actions performed by the hometown team will be described more concretely than negative actions performed by the rivals.

Inter-rater reliability. Five articles were selected at random using a random number generator (Random.org), and Cohen's kappa (1960) was obtained for all of them, using the method described in the LCM manual. For all five articles, mean $\kappa = .55$, with 72% of judgments in agreement overall. This value falls into the moderate to good range (Landis & Koch, 1977).

The LEB. The composite score for each article was transformed into an abstraction score for positive and for negative actions performed by each team. Values were assigned to each verb in a sentence according to the level of abstraction of the four categories (1 point for DAV, 2 points for IAV, 3 points for SV and 4 points for ADJ) and a mean abstraction score taken for each category of action (positive and negative) in the full article (as in Semin & Fiedler, 1989).

Abstraction was then subjected to a 2 (Valence: positive vs. negative) by 2 (Team:

hometown vs. rival) repeated-measures ANOVA. The expected interaction between Valence and Team did not materialize ($F(1, 15) = .34$, $p = .57$, $\eta^2_{partial} = .02$), nor trend in the proper direction. Nor was there a main effect of team ($F(1, 15) = .06$, $p = .81$, $\eta^2_{partial} = .004$). A marginally significant main effect of valence did emerge ($F(1, 15) = 3.83$, $p = .07$, $\eta^2_{partial} = .20$), such that negative statements were somewhat more abstract for both teams (see Figure 2.1). While this would be expected for the rival teams, it is not in keeping with the hypotheses derived from the LEB model (although some experiments have found a general bias for negative statements, e.g. Maass, Cecarelli & Rudin, 1996). A split-plot ANOVA including the hometown team's victory status as a between-subjects variable found no evidence of additional interactions, all $p > .17$.

A separate analysis examining Associated Press articles found no effect of valence and no difference between the levels of abstraction used for winners and losers (all $p > .17$; see Figure 2.2). However, the effect size for valence was similar in this small sample ($\eta^2_{partial} = .20$) to the effect found in the larger sample, suggesting a lack of power to detect this effect.

Discussion

Despite theoretical indications that it would succeed (Maass, 1999), the current study found no significant variations in linguistic abstraction for print media reports of hometown teams and their rivals. Disappointingly, the reliability between the raters was also lower than is usually found in such studies; whether this is a function of the complexity of the articles themselves or of the ambiguities inherent in the English language is not apparent, but it suggests that despite months of training for each coder, the LEB may not be an easy tool to apply to complex real-world communications. This

Figure 2.1. Linguistic abstraction in the 2009 NFL season.
Note: Higher numbers mean more abstraction.

Figure 2.2. Linguistic abstraction in Associated Press articles.
Note: Higher numbers mean more abstraction.

finding—or, more properly, lack thereof—has troubling implications for both Study 2

and the greater LEB literature; NFL reports should have been a perfect testing ground for

these effects, but none were made evident. It is not clear why this finding failed to materialize, but a closer investigation of the particulars of American sportswriting is warranted to determine some possible alternative explanations.

While examining pilot data to look for possible moderating variables, it occurred to me that perhaps the articles in the current sample were not the proper places to look. In those training articles where the LEB was apparent, the games described were somewhat important—for example, the first game between the New York Giants and Dallas Cowboys in the new billion-dollar Cowboys Stadium exhibited the LEB, as would be expected for such a record-breaking event. For the most part, the games included in this experimental sample did not qualify as "important"; most were early enough in the season to have no major playoff implications, and even those that occurred later did not clinch any team's postseason status. The LEB is known to have a motivational component (Maass, Cecarelli & Rudin, 1996); perhaps standard regular season games, even those that take place in the context of an epic rivalry, are insufficient to trigger ingroup-protective motivations in sports writers.

In order to rule this out as a possibility, we coded six more articles from the 2010 NFL playoffs. These playoffs were unusual in that hated divisional rivals did meet rather more frequently than is common; the Jets and Patriots, Steelers and Ravens, and Packers and Bears all met during these rounds. (Though the Jets and Patriots were not included in the earlier sample, their rivalry grew more intense over the course of the 2010 season, so they merited inclusion.) The same coding procedure was applied to six articles about these games, one from each paper. A split-plot ANOVA again revealed no effect of Team, Valence or Victory, and no trend in the expected directions (all $p > .20$, all η^2_{partia}
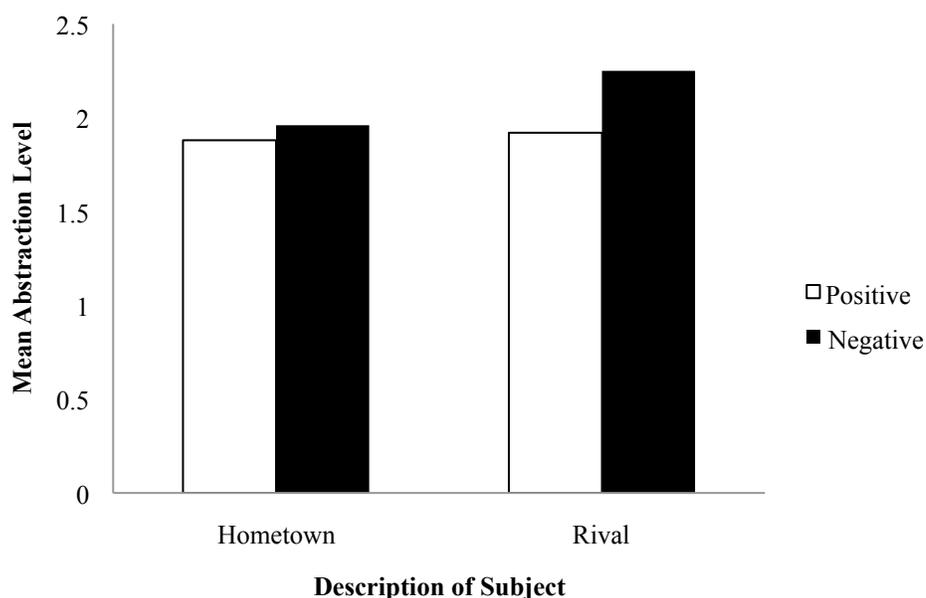
Figure 2.3. Linguistic abstraction in the 2010 NFL playoffs.
Note: Higher numbers mean more abstraction.

< .38; see Figure 2.3). Thus it seems that the relative importance of games (or lack

thereof) does not systematically affect the coverage of those games, although this may be

worth revisiting with a larger sample.

Another possibility is that American sports reporting may be subject to different

expectations than normal communication. An examination of sports coverage suggests

there may be some merit to this possibility. For example, on *Football Night in*

Philadelphia, a local postgame show focused on the Eagles, many stories and discussions

are not focused on what the Eagles have done well—rather, they concentrate on deficits

that the team needs to overcome in order to succeed, and harsh criticism of poor

performance is commonplace. Negativity about the local team is by no means forbidden,

nor is mindless boosterism encouraged, and the same is true of any sports page, blog, or

talk show. If sports media have no strictures against expressing negativity, this might

help to explain why negative statements had the highest abstraction in the current study.

Regardless of the true reason behind this finding, the fact remains that the LEB did not operate in this clearly defined intergroup setting as I had ample reason to expect it would. This finding is difficult for the LEB literature to explain, and suggests that the LEB may not be as well-suited to identifying print media bias as once thought. With these caveats in mind, we now turn to the question of whether the LEB can also be applied to the analysis of possible political media bias.

Chapter 3: Archival Analysis of 2004 Presidential Election Reports

The results of Study 1 suggest that the LEB does not affect newspaper sports reporting in any significant or systematic way. However, it is still possible the LEB may operate in some domains and not in others, so further investigation is needed before rejecting the idea that the LEB is a useful marker of print media bias. As politics is considerably more volatile than football, and individual politicians may carry with them much greater confounding issues (such as race and gender) beyond their party affiliation or individual charisma, I chose to focus my investigation on the 2004 Presidential campaign between George W. Bush and John Kerry, two white male sons of privilege with broadly similar life stories. This polarizing election was the first conducted after the popular adoption of the "red state/blue state" dichotomy, and one conducted in the shadow of two contentious wars. If reporters were tempted to report in such a way as to support a member of their own party, they would certainly have had strong incentive to do so given the stakes.

In addition to determining whether or not systematic linguistic bias occurs in the print media, I also investigated the effects that the editorial climate of a newspaper may exert on expressed linguistic abstraction. Though there is traditionally a hard and fast separation between the news and editorial departments of a newspaper, a newspaper's editorial endorsement has been shown to affect the tone of coverage of that campaign (Peake, 2007), with the endorsed candidate receiving more favorable headlines than his opponent. It is reasonable to assume that this trend may also extend to the LEB; papers whose editors endorsed Kerry may show more pro-Kerry linguistic abstraction than did

papers endorsing Bush.

Methods

As before, two research assistants (different from those used in Study 1) who were trained in the application of the LCM to political reports coded the language used in articles about the two major-party candidates in the final month of the 2004 Presidential elections. Both coders were native speakers of English and American citizens with an understanding of politics; both were blind to the source of the articles, and were trained until each reached 90% agreement with the lead researcher on three consecutive training articles.

Materials. *Campaign articles.* The fifty largest American daily newspapers (by circulation in the six-month period preceding September 30, 2004; Advertising Age, 2004) were initially considered for inclusion in the sample. The largest newspaper, USA Today, was not included because it has a tradition of being written in a very simple fashion, which may influence the expression of the LEB. After it was excluded, the rest were searched via LexisNexis Academic to determine whether or not they had published articles by staff reporters about the activities undertaken by the major candidates in the final weeks of the 2004 campaign. Outlets which published only articles written by wire service or bureau reporters, such as the Miami Herald, were excluded. Other outlets, such as the Baltimore Sun, did not have archives accessible to LexisNexis Academic or other databases and were also excluded. The final list represents a combined average daily circulation of 12,029,383 copies and includes 23 newspapers from 19 major metropolitan areas across the United States. A full list of these newspapers can be found in the Appendix.

All articles about the Presidential campaigns of George W. Bush and John Kerry that were originally published between October 15, 2004 (two days after the final Presidential debate) and November 1, 2004 (the day prior to the 2004 election) were retrieved from LexisNexis Academic and other sources. To be included in the study, articles had to be written by a staff reporter for the newspaper and been intended to serve as factual accounts of a campaign's activities during at least part of that period. Associated Press articles, columns, editorials, and opinion pieces were excluded from consideration. Two articles from each paper were randomly selected using a random number generator (Random.org) to serve as the final sample, for a total of 46 articles.

Newspaper endorsements. Each newspaper's official editorial endorsement was obtained from newspaper archives. These endorsements are listed alongside each paper in the Appendix. Of the 23 newspapers included, 11 endorsed Kerry, 10 endorsed Bush, and 2 (the Los Angeles Times and Cleveland Plain-Dealer) declined to endorse either candidate.

Coding system. As in study 1, coders were trained to use the two-part LCM Coding Manual (Coenen, Hedebouw & Semin, 2006) to identify the level of abstraction of verbs and adjectives describing the direct actions of a member of each party, and Study 1's rules for inclusion and coding were also applied to Study 2.

Results

If the LEB is a useful measure of partisan bias, then we should see an interaction between the valence of an action and the party of the actor. Given that this bias is thought to be liberal in nature, abstraction scores should be highest for positive actions performed by the Kerry campaign and negative actions performed by the Bush campaign. In

addition, the difference between these levels of abstraction should vary depending on whether or not a newspaper endorsed Kerry or Bush, with greater gaps found in the Kerry papers than the Bush papers.

Inter-rater reliability. Five articles were selected at random using a random number generator (Random.org), and Cohen's kappa (1960) was obtained. For all five articles, mean κ = .52, with 81% of judgments in agreement overall. This value also falls into the moderate to good range (Landis & Koch, 1977).

The LEB. As in study 1, the coding data gathered by the research team was used to form a new abstraction variable for positive and negative actions. The analytical strategy of this study is likewise similar, with a pair of within-subjects factors (Candidate: Bush vs. Kerry; Valence: positive or negative) subjected to a 2 by 2 within-subjects ANOVA. No main effects were significant (all $F(1, 33) < .63$, all $p > .43$, all $\eta^2_{partial} < .02$), nor was the anticipated interaction ($F(1, 33) = .001$, $p = .98$, $\eta^2_{partial} < .001$; see Figure 3.1). The actual differences in abstraction amongst the four categories were negligible.

Difference scores were calculated for the second analysis by subtracting the mean positive abstraction from the mean negative abstraction for each candidate to obtain a level of positive bias for that candidate, then subtracting Kerry's score from Bush's score. Positive scores would indicate more positive abstraction for Bush over Kerry; negative scores would indicate more positive abstraction for Kerry over Bush (see Figure 3.2). These scores were then compared based on a paper's stated endorsement in the 2004 election. There appeared to be no significant effect of endorsement on linguistic abstraction used to describe each candidate ($t(33) = -.90$, $p = .37$, $d = .31$).
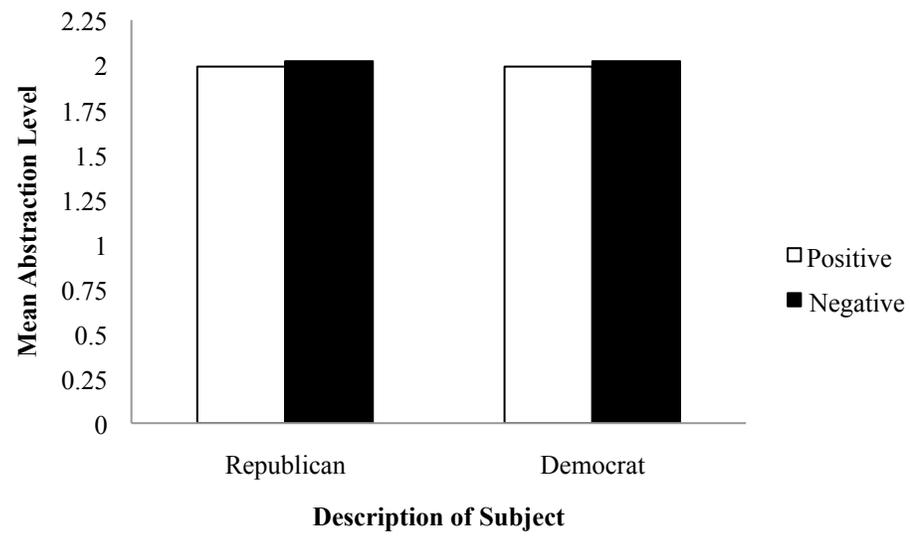
Figure 3.1. Mean abstraction level in newspaper articles, 2004 election.
Note: Higher numbers mean more abstraction.
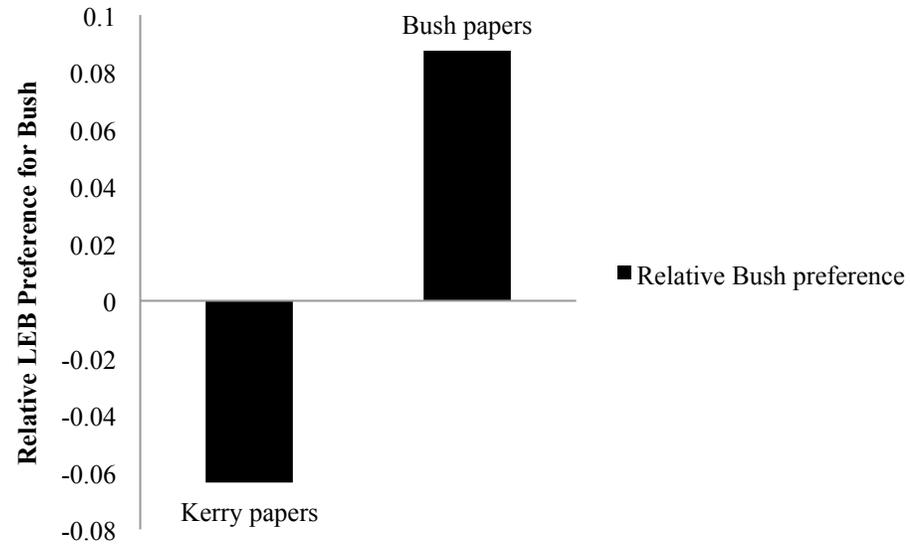

Figure 3.2. Relative linguistic preference for Bush or Kerry.
Note: Negative numbers mean greater abstraction preference for Kerry.

Discussion

As before, no evidence of a systematic variability in linguistic abstraction was

found. This null result is not necessarily diagnostic of a lack of print media bias in general; the absence of an LEB effect here may have more to do with the limitations of the LEB than a true lack of bias. More study is necessary to determine if and when the LEB may operate in media samples.

With that being said, there are some noteworthy results that suggest linguistic abstraction is operating in a somewhat different form than the traditional LEB pattern. Preliminary exploratory analyses of the frequency of use for each category and each party reveal some interesting results that bear further investigation. While the overall mean level of abstraction did not vary based on the party affiliation of actors or the endorsement of a newspaper, the categories of language did vary to some extent. For example, papers that endorsed Kerry used more positive adjectives to describe the Bush campaign than did Bush papers ($t(40) = 2.29, p = .03, d = .72$), as well as more negative adjectives to describe Kerry's actions ($t(28.31) = 2.51, p = .02, d = .94$). Kerry papers also tended to use more DAVs (the most concrete category in the LCM) to describe him ($p = .08$), regardless of valence, and more positive IAVs to describe Bush ($p = .09$).

In this sample, articles from Kerry papers tended to be somewhat longer (due in part to the fact that the Bush papers included the two New York City tabloids), so they contained more descriptive statements overall. Still, it is interesting that the extra statements were not evenly distributed among all categories, but instead were concentrated in certain areas that may imply the operation of linguistic bias—in the opposite direction of what would be expected. Pro-Kerry papers are not implicitly supportive of Kerry; rather, by describing Kerry's positive actions more concretely than Bush's, they are implicitly supportive of Bush. The potential meaning of this effect is

intriguing, as it might suggest a deliberate (if clumsy) attempt to overcome editorial bias by subtly favoring the disfavored candidate—an unexpected effect to be sure. This might also have represented some ambivalence toward Kerry. At this point in the campaign, Kerry was not a terribly exciting or compelling candidate for many Democrats, and this linguistic mismatch may have been less about boosting Bush and more about subtly expressing concerns about Kerry.

Regardless, the LEB in its classic form does not appear to be present in either of the two media samples included in these studies. If the media are consistently exhibiting partisan bias, it is probably not through this modality, and if an audience perceives bias in these articles, it is likely not because they are reacting to systematic variations in linguistic abstraction. This does not mean that linguistic abstraction has no impact on impression formation; Study 3 represents my attempt to better understand the role such abstraction might play in perceptions of the print media and of a target described by that media.

Chapter 4: The Effects of Linguistic Bias on Candidate Perceptions

The goal of Study 3 is to understand the effects that linguistic bias may have on recipients of biased messages. Though it is assumed that variations in abstraction lead to attitudinal changes, this has not been thoroughly explored by previous researchers. Most research on the LEB has focused on its generation and the attitudes expressed by its generators, although some studies have investigated the role that differing levels of abstraction have on message recipients' cognition. There is good evidence that more abstract messages lead to more dispositional inferences (Semin & Fiedler, 1992; Wigboldus, Semin & Spears, 2000), with the assumption that such inferences will lead to either positive or negative evaluations of the target as appropriate. There is also some evidence that recipients of linguistically biased messages respond to those messages in ways that are consistent with the generator's bias: German undergraduates were more likely to espouse prejudicial beliefs against migrant workers after reading articles that portrayed migrants in a more abstractly negative fashion (Geschke, Sassenberg, Ruhrmann, & Sommer, 2010). In general, though, the effect of the LEB on message recipients' perception of a target remains somewhat understudied, and nothing at all is known about how such messages may affect implicit attitudes. It is possible that, due to its subtlety, the LEB may have a stronger effect on implicit than on explicit cognition, but this question has not yet been investigated. The current study represents an attempt to add to the body of knowledge on this topic.

In addition, even less is known about the effect that the LEB may have on message recipients' impressions of their communicative partners. To date, only two

studies (Douglas & Sutton, 2006, 2010) have described the effect that linguistic abstraction has on a message recipient's impression of a message's *generator*. In the first study, positively-biased messages with greater abstraction made recipients more likely to judge the message's generator as a close friend, while abstract negatively-biased messages made recipients likely to judge the generator as an enemy or a neutral third party, even when controlling for the valence of descriptions. In the second, recipients rated message generators who communicated positive information abstractly as more likable; the opposite was true for negative information. This effect was partially mediated by the recipients' perceptions that those using more abstract language were attempting to control the recipient's impression of the target. This suggests that audience members will have the capacity to form impressions of reporters and editors of media messages that are biased in an LEB-consistent fashion.

This literature also leaves unresolved the question of how impressions of bias may interact with expectations of bias. In neither study did Douglas and Sutton ascribe a particular social status to their message generator—the generator was effectively a blank slate, upon which study participants assigned a judgment of bias based solely on the evidence at hand. Such laboratory studies also commonly use experimental paradigms whose artificiality is heightened by their materials, which are often cartoons depicting an action; in the second study, participants were told that the person describing the cartoon character's actions was a friend of the cartoon character, which may have led to a heightened sense of surrealism on the part of the participants.

Thus, the results of previous studies in this area, important though they are, do not necessarily describe how the LEB may behave in a real-world setting. One rarely enters

into a communicative dyad knowing or believing absolutely nothing about one's partner; this is certainly not the case for the great majority of Americans interacting with the media, who generally distrust and expect bias from such sources (though the direction may well vary). It is possible that the expectation that a source is biased may cloud perceptions of actual bias expressed by that source; if the media are expected to be consistently pro-liberal, then they may be judged as having a pro-liberal bias even when the linguistic evidence supports a finding of pro-conservative or anti-liberal bias.

A more naturalistic study is needed in order to determine how the LEB operates when a message comes from a potentially untrustworthy source, both in the assessment of bias or in the assessment of that message's target. Though it is common sense to expect that individuals should discard such information out of hand, a considerable amount of previous research has shown that this is not always the case (Hovland & Weiss, 1951-1952). For instance, people may accept and act upon financial advice even knowing that the source has a vested interest in the outcome (Cain, Loewenstein & Moore, 2005), or allow poor-quality information to taint one's attitudes and opinions (Weiss, 1953). If under-discounting occurs when the media truly are biased, then political partisans truly have reason to be concerned when the media are biased against them—their political opponents could enjoy an unfair boost in public opinion even when most members of the public believe the media are not a credible source. Though the operation of the LEB in an interpersonal setting is fairly well-understood, to my knowledge its impact on dispositional inferences has not been studied when recipients of a message may have expectancies about the generator.

From the results of Study 1 and Study 2, it appears that the LEB as it is currently

understood in the literature is not systematically present in American newspaper reports. This does not necessarily mean that the media never manifests the LEB; indeed, individual articles in both Study 1 and Study 2 did show this bias, and enough such articles might well taint one's perceptions of the media as a whole. However, even if it had existed in a systematic way, merely demonstrating that the LEB is present would not be sufficient to fully explain perceptions of media bias. While it is expected that individual audience members will be capable of accurately discerning the LEB where it exists (Douglas & Sutton, 2006), this assumption must be checked before drawing any conclusions about the importance of the LEB to perceptions of media bias. It is still necessary and worthwhile to examine the effects that LEB-consistent media messages might have on their audience; Study 3 represents just such an examination.

Procedure

Participants read a newspaper article about a fictitious candidate for the United States Senate, designed to vary in the linguistic abstraction (one abstract, one concrete) used to describe two actions (one positive, one negative) and the party affiliation (Republican vs. Democrat) of the candidate in a 2 x 2 between-subjects design. After completing a brief battery of explicit and implicit attitude measures regarding their impressions of the candidate and the journalists responsible for the article, they were debriefed and dismissed.

Participants. The sample consisted of 249 adults drawn from the diverse student body of a major northeastern university; after those who failed the manipulation check and those with high error rates on the implicit attitude tasks were excluded, the final sample consisted of 212 participants (64 male, 121 White, 130 Democrats, mean age

20.94, ages ranged from 18 to 51). Participants were screened beforehand in order to

ensure that they were American citizens and native speakers of English. Other relevant

demographic information can be found in Table 4.1.

Materials. *Newspaper articles.* Participants were given five minutes to read one

of four articles about a fictional political candidate for the United States Senate named

Tom Baker [please see the Appendix for the full text of the article]. The article describes

two actions, one positive and one negative, performed by the candidate during the course

of his duties as a Colorado state senator. These actions (provides his constituents with a

forum to contact him/can be evasive on certain issues) were selected from a list of eight

alternatives after a panel of first-year psychology graduate students ($N = 19$; 3 males,

mean age $= 23.58$) rated them of equal valence magnitude on a nine-point scale, where

zero meant "Neither positive nor negative," and +/- 4, "Very positive/Very negative"

($t(18) = .83$, absolute value of positive action mean $= 2.89$, absolute value of negative

action mean $= 2.74$).

The article varies systematically along two dimensions: the party affiliation of the

candidate (Republican or Democratic) and the level of linguistic abstraction used to

describe his actions. Two descriptions were generated of each behavior, one abstract and

one concrete. When the article is intended to provide a positive impression of the

candidate, the article contains the abstract description of the positive behavior and the

concrete description of the negative behavior; this pattern is reversed for anti-candidate

articles. Each participant received an article that is either pro- or anti-Democratic or pro-

or anti-Republican in a 2 (party of candidate) by 2 (bias of article) between-subjects

design.

Table 4.1

Demographic Information

What is your year in school?

Freshman	39
Sophomore	48
Junior	64
Senior	54

What is your ethnicity?

White	121
Black	46
Asian	19
Hispanic	7
Other	12

How interested in politics are you?

Extremely interested	11
Interested	43
Somewhat interested	64
Slightly interested	63
Not at all interested	24

What is your political affiliation?

Republican	28
Democrat	130
Independent	47

What is your political ideology?

Strong Liberal	19
Liberal	77
Moderate	91
Conservative	15
Strong Conservative	3

Did you vote in 2008?

Yes	96
No	109

Are you a registered voter?

Yes	143
No	63

Table 4.1. Demographic information.

Measures. *Explicit attitude measures.* Two measures were created to assess attitudes toward the candidate and those who created the article; these are included in full in the Appendix. First, participants completed a 6-item Political Attitudes Questionnaire, designed to measure their beliefs about the candidate, Democrats and Republicans, and their political ideologies. A sample question is, "If he were running for office in your home state, would you vote for Tom Baker?" Because of poor reliability in this measure ($\alpha = .16$), all items were assessed individually.

Second, participants completed a 7-item Source Impression Questionnaire concerning biases they perceived in the article they read. Participants were asked to judge whether or not the article seemed to be biased, and also if the author of the article or the editor who allowed the article to be published were biased. A sample item is, "The author of this article is biased for one political party over the other." There are three subscales: bias in the article itself (3 items), bias by the reporter authoring the article (2 items), and bias by the editor of the piece (2 items). Due to insufficient reliability on these subscales (all $\alpha < .55$), each item was assessed individually.

Implicit attitude measures. Participants completed two implicit attitude measures, the Implicit Association Task and Single-Category Implicit Association Task, counterbalanced in order to avoid order effects. No significant order effects were found ($p > .40$ for both the IAT and SC-IAT).

Participants completed a Democratic-Republican IAT (Greenwald, McGhee & Schwartz, 1998) to assess their implicit preferences for the major American political parties. After pilot testing revealed a lack of familiarity with some political symbols and concepts in this population, eight symbols were chosen to act as the Democratic and

Republican exemplars: (D)/(R), liberal/conservative, blue state/red state, and the donkey/elephant mascots. Though recognition of these items was generally good in the pilot sample, a training session to familiarize participants with them was provided before they were allowed to start the IAT. Data were scored using the revised d-score algorithm in accordance with standard practices (Greenwald, Nosek & Banaji, 2003). Reliability on this measure was very good ($\alpha = .79$).

Because the LEB manipulation in this experiment was thought to be more influential on attitudes toward the candidate, rather than the candidate's party, participants also completed a Candidate Single Category IAT (SC-IAT; Karpinski & Steinman, 2006). The SC-IAT measures positive and negative associations with a single target category (the candidate), thus allowing a specific assessment of participants' implicit attitudes toward Tom Baker alone. Reliability on this measure was low, but normal for implicit measures ($\alpha = .67$).

Results

Data were subjected to a 2 (Candidate Party: Democrat or Republican) by 2 (Article Bias: For or Against) between-subjects ANOVA. For a correlation matrix of selected dependent variables, please see Table 4.2 If the LEB has the hypothesized effect, we should see greater liking of the candidate and the candidate's party when participants read an article biased for the candidate; greater disliking of the candidate should result from articles biased against him. Participants should at least be able to accurately assess the direction of the bias in the article, if not the bias of those responsible for producing it.

Explicit Attitude Measures. The experimental article impacted participants' judgments of Baker as a candidate, but in a paradoxical way. A marginally significant

Table 4.2

Selected Correlations Among Attitudes Toward Tom Baker

	Impressions	Good senator	Biased article	Biased author	Biased editor	Party IAT	Candidate SC-IAT
Impressions of Baker	--	.25**	-.07	-0.02	-0.05	0.09	-0.07
Baker would make a good senator.	.25**	--	-.15*	-0.1	-0.12	-.33**	0.05
The article I read was biased.	-0.07	-0.15*	--	.60**	.52**	0.07	-0.06
The author was biased.	-0.02	-0.1	.60**	--	.74**	-0.11	-0.01
The editor was biased.	-0.05	-0.12	.52**	.74**	--	0.03	.00
Party IAT	0.09	-.33**	0.07	.00	0.03	--	-.12+
Candidate SC-IAT	-0.07	0.05	-0.06	-0.01	.00	-.12+	--

Table 4.2. Selected correlations.

main effect of Candidate Party emerged ($F(1, 201) = 3.45$, $p < .07$, $\omega^2 = .01$); participants

liked Baker somewhat more if they believed he was a Democrat than if he was a

Republican. Given the political leaning of this sample, such a finding is not surprising.

Unexpectedly, Article Bias also emerged as a main effect ($F(1, 201) = 5.39$, $p = .02$, $\omega^2 =$

.02), but in the opposite direction as predicted: participants who read an article biased

against Baker had more positive explicit impressions of him than when they read an

article designed to be more complimentary (see Figure 4.1). The significance of this

effect seems to be driven largely by political Independents ($F(1, 43) = 12.59$, $p < .01$, ω^2

= .18), but the same pattern is found for partisans who read articles about a member of

their own party (see figure 4.2).

The manipulation did not affect participants' judgments of Baker's worthiness as

a senator (for all main effects and interactions, $F(1, 201) < 1.78$, $p > .18$, all $\omega^2 < .001$)

nor affect the likelihood that they would vote for him, given the opportunity (for all main
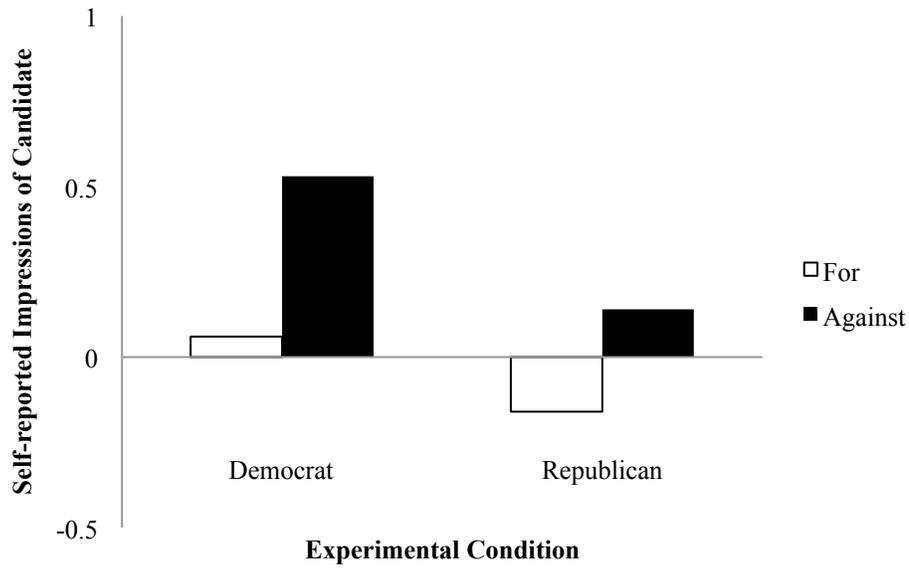
Figure 4.1. Impressions of Candidate Baker by experimental condition.
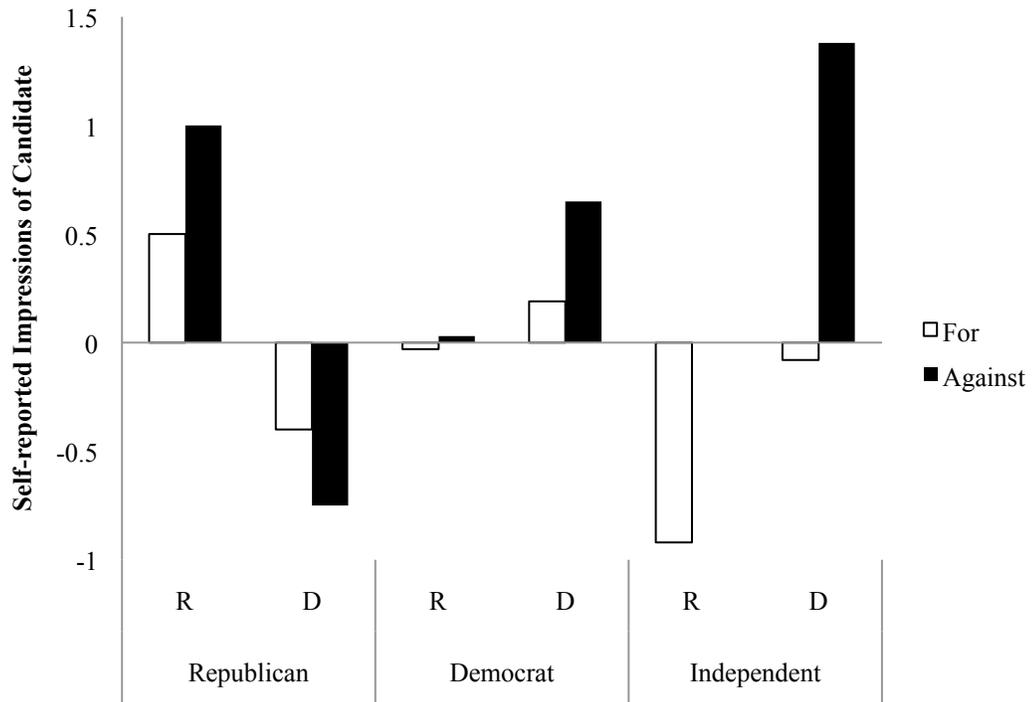   *Note:* Higher numbers mean more positive impressions of the candidate.

Figure 4.2. Impressions of Candidate Baker by political affiliation.
Note: Higher numbers mean more positive impressions of the candidate.

effects and interactions, $F(1, 201) < 1.61$, $p > .21$, $\omega^2 < .001$). Global judgments of

Democrats and Republicans were not altered by reading the experimental article (all $p >$

.23). Participants' political ideologies did differ after the manipulation ($F(3, 201) = 3.26$,

$p = .02$). However, they were also found to differ somewhat before the manipulation was

administered (a significant Candidate Party x Article Bias interaction existed for the

ideology question asked before the article was distributed, suggesting perhaps a failure of

randomization), so this is difficult to interpret.

While their attitudes toward the candidate were affected by the experimental

manipulation, participants did not for the most part perceive bias in this study. They did

not differ in strength of belief that the article was politically biased ($F(3, 201) = 1.05$, $p =$

.37) and were unable to accurately assess the direction of the bias in the articles they read

in a systematic way ($X^2(9) = 9.96$, $p = .35$). They were also unable to judge the political

affiliation of the article's author ($X^2(6) = 2.00$, $p = .92$) or editor ($X^2(6) = 8.19$, $p = .22$),

and did not differ in the belief that either was politically biased (all $F(3, 201) < .14$, all p

$> .94$).

Interestingly, a significant Article Bias x Candidate Party interaction emerged for

the item "The article I read was in favor of Tom Baker" ($F(1, 201) = 7.21$, $p < .01$, $\omega^2 =$

.03; see Figure 4.3). When reading an article that was biased in favor of a Democratic

Baker, participants disagreed more strongly with the statement than they did when

reading an article biased against him ($t(201) = 2.38$, $p < .05$, $r = .16$). The reverse was

true, although not statistically significant ($t(201) = 1.39$, $p > .05$, $r = .10$), for those who

were told Baker was a Republican; articles biased against the Republican candidate were

judged as less biased than articles written in favor of him. Exploratory analyses

examining members of each party individually suggested that this pattern was true for both Democrats ($F(1, 126) = 4.37$, $p = .04$, $\omega^2 = .03$) and Independents ($F(1, 43) = 3.76$, $p = .06$, $\omega^2 = .06$); there were not sufficient Republicans in the sample to determine if this was also the case for them, but their data is also partially consistent with this pattern in the opposite direction (see Figure 4.4).

Implicit Attitude Measures. The manipulation had no effect on IAT scores (all $F(1, 208) < .82$, all $p > .37$, all $\omega^2 < .01$); implicit attitudes toward political parties as a whole were unaffected by a single article about a member of one of those parties. The manipulation did marginally affect SC-IAT scores ($F(3, 208) = .06$), and a significant main effect of Article Bias emerged ($F(1, 208) = 4.80$, $p = .03$). Paradoxically, reading an article biased against a candidate led to increased implicit liking toward that candidate
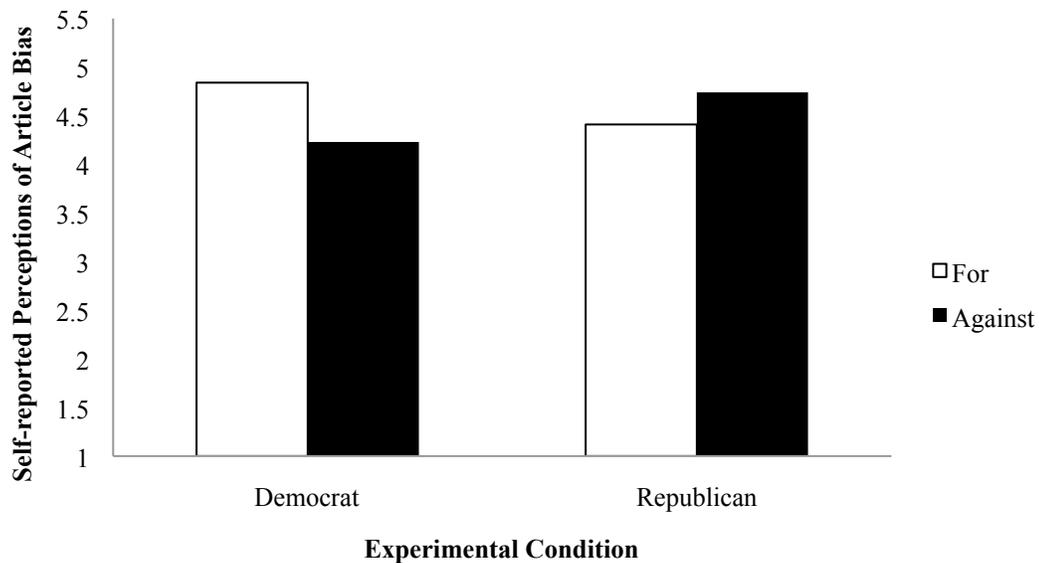

Figure 4.3. Perceptions of bias by experimental condition.
Note: Higher numbers mean more disagreement with the statement, "This article was in favor of Tom Baker."
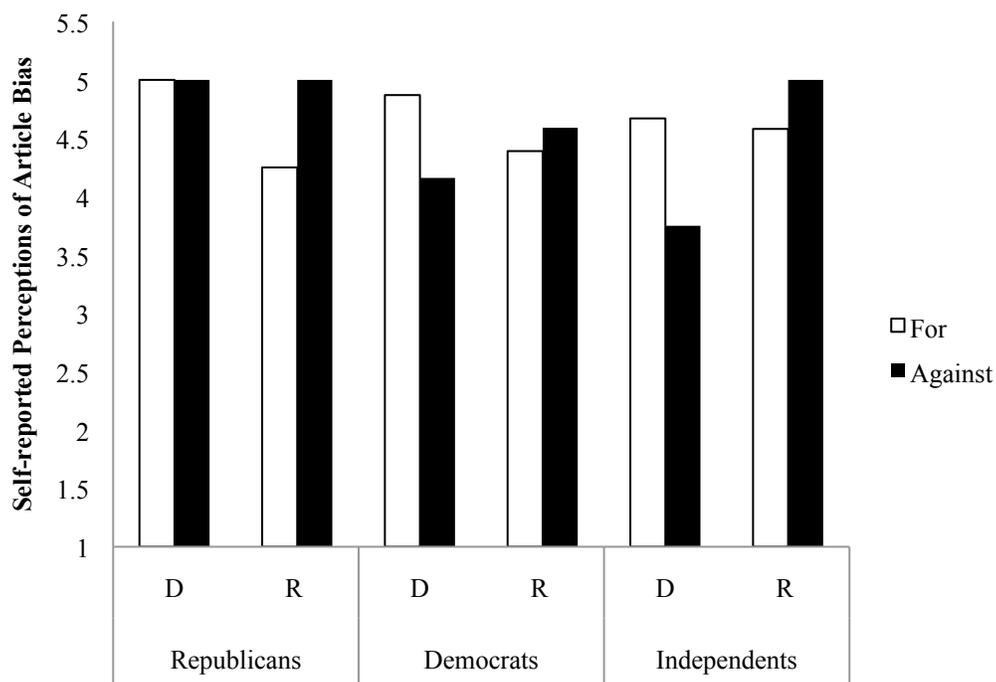
Figure 4.4. Perceptions of bias by political affiliation.
Note: higher numbers mean more disagreement with the statement, "This article was in favor of Tom Baker."

(ω^2 = .02; see Figure 4.5). This unexpected finding is consistent with the article's effect on explicit attitudes toward the candidate as described above; an article that is linguistically biased against a candidate leads readers to more positive impressions of him than an article biased for him. It is interesting to note that for Democrats, main effects of both party (*F(1, 126)* = 5.41, *p* = .02, ω^2 = .03) and bias (*F(1, 126)* = 4.46, *p* = .04, ω^2 = .03) were obtained that confirmed this pattern (see Figure 4.6).

Discussion

The current study led to a host of surprising results. First, contrary to the predictions of the LEB, linguistic bias in favor of a candidate led to decreased liking of him—a paradoxical finding that operated on both the explicit and implicit levels. Second,

participants were unable to accurately identify bias in the articles they read, despite

Figure 4.5. SC-IAT scores by experimental condition.
Note: Higher numbers mean more implicit liking.

Figure 4.6. SC-IAT scores by political affiliation.
Note: Higher scores mean more implicit liking.
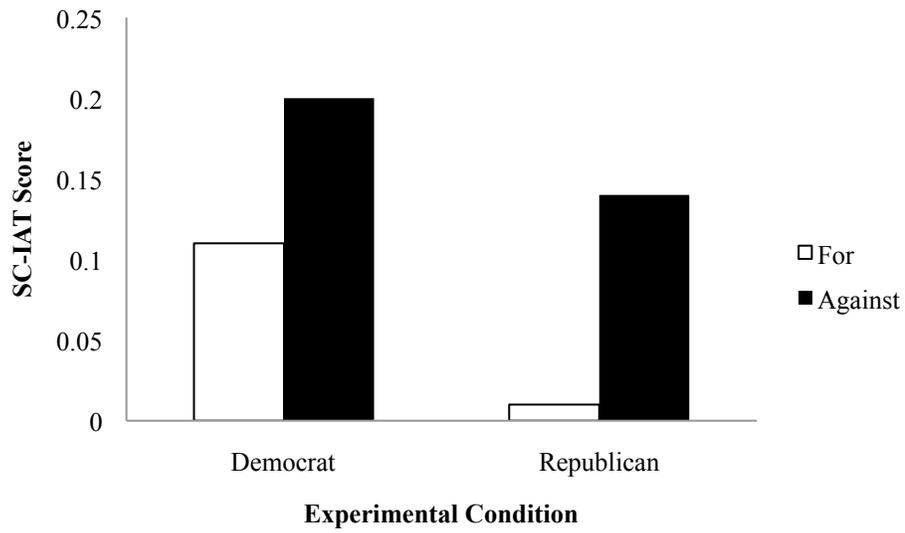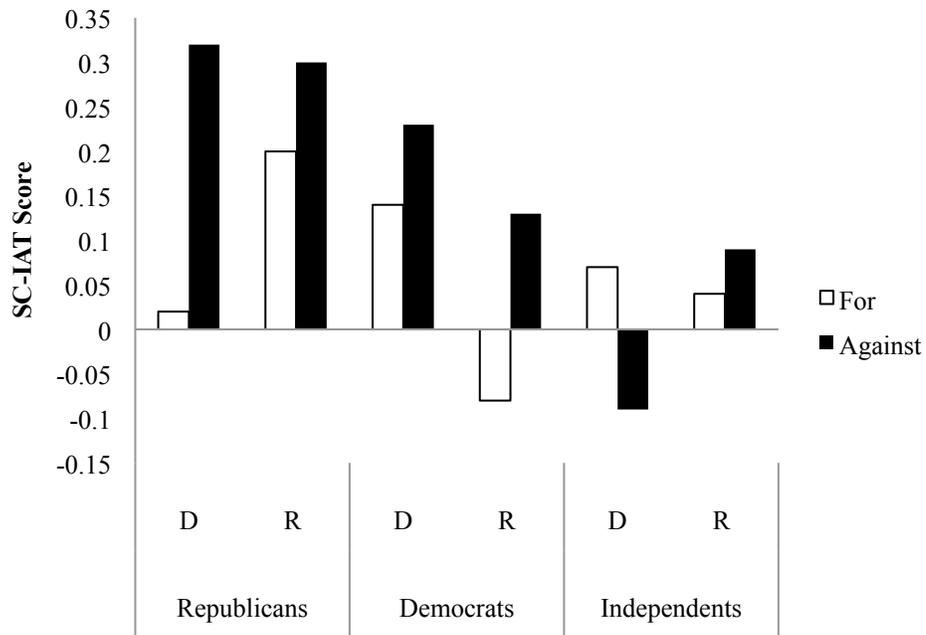
previous evidence that indicates they should have been capable of it. Third, participants believed that bias was not bias when it agreed with their sensibilities, although this is perhaps not all that surprising. Whatever the cause of such results, one thing is clear: participants need not actively perceive bias to be affected by it.

The Importance of Appropriate Implicit Measures. This experiment underscores the importance of selecting the right implicit measure for the job. For example, while the IAT displayed very good psychometric qualities, it did not vary systematically across groups. Given that the manipulation was a single article about a single candidate, it is not surprising that global attitudes toward Democrats and Republicans were not affected by it. But even if we had presented multiple articles about the same candidate, the IAT would not have been a good choice for inclusion if we were primarily interested in impressions about a single candidate, rather than the two political parties. The IAT requires two polarized categories by its measurement design, and there is no natural opposing force to a fictional candidate besides another fictional candidate. The Single-Category IAT, on the other hand, requires only one category in order to assess implicit evaluations of a target, so it is well-suited to evaluating implicit attitudes toward a single candidate. In the present study, the SC-IAT did show an effect of the manipulation (though it was admittedly small), demonstrating its utility for the purpose. Future researchers who are interested in assessing implicit attitudes in the political domain might do well to include the SC-IAT in their battery of tests, as it appears to tap into a different source of variance than does the standard IAT.

An Underdog Effect? Perhaps the most surprising result in Study 3 is the paradoxical effect that linguistic bias has been shown to have on message recipients'

impressions of a target candidate: message recipients have more positive impressions of a candidate who has been described negatively to one who has been described positively. The most tempting possibility is to attribute this to some sort of putative "underdog effect," whereby message recipients prefer or perhaps even sympathize with someone who has been linguistically maligned. Evidence of an underdog effect has been found in several domains, including aesthetics, athletics and politics—as well as for abstract shapes (Kim et al., 2008). Underdogs are perceived as working harder (Vandello, Goldschmeid & Richards, 2007) and consequently they are liked more; political underdogs are perceived very warmly without sacrificing any perceptions of their competence, and their supporters prefer and even welcome the underdog label (Goldschmeid & Vandello, 2009). It is not far-fetched to propose a similar effect here— bias against Tom Baker may have seemed like an unfair advantage for his political opponents, and our participants may have been rooting for him to succeed as a result.

It is of course too early to discount alternative explanations for this finding, not least because of the admittedly small size of this effect. It is possible, for example, that participants in this study may have perceived a hidden agenda in the pro-Baker article that they did not in the anti-Baker article, or have found the pro-Baker article more likable than the anti-Baker article (in keeping with Douglas & Sutton, 2010), and that this may have had unforeseen (though also paradoxical) implications for the article's influence on those participants. In the current study, I did not ask participants to rate how much they liked the article, though I found little evidence that they perceived it to be biased; this refinement would certainly merit inclusion in a replication. It is also possible that the liking effect found by Douglas and Sutton may not apply in all instances, and that

messages that are generated by a media source are treated differently from messages generated by a private individual. More study of this is warranted to better understand the relationship between source liking and message acceptance.

Another possibility is that the results of this study are a chronological artifact, affected by factors far outside a researcher's control. Social psychology is in many ways a historical science (Gergen, 1973), and given the subject matter, this study may have been uniquely vulnerable to its historical context. The data for this study were collected in the summer and early fall of 2010, a period marked by a conservative resurgence in American politics and a general dissatisfaction with incumbents in general. Perhaps these participants, liberal though they tended to be, absorbed that zeitgeist and reacted so as to prefer the perceived underdog and exhibit distaste for the candidate receiving preferential treatment. These peculiar results may have simply been a product of their time and place; further study and replication is necessary to understand the extent to which that is true.

Another possible alternative explanation is that participants perceived the content of the articles as differentially true (Hansen & Wänke, 2010). If more concrete statements are perceived as more likely to be true than more abstract statements, then a message that exhibits the LEB would actually be received as the opposite valence of what was intended. In a message that is abstractly positive and concretely negative—the classic positive LEB pattern—the negative content would be rated as more likely to be true than the positive content. Recipients would then tend to believe the negative aspects of the description more than the positive ones, with obvious implications for attitude formation. The current study did not ask participants whether or not they trusted the articles more or believed their content to be more or less true, but any replications should include this

information in order to rule out whether or not this is true.

There are several alternative explanations that must be ruled out before accepting any evidence of an underdog effect. Should these alternatives prove to be unsupported by the evidence, however, and should this result be replicated, then some interesting possibilities arise. Perhaps this paradoxical effect of bias could be marshaled to allay fears of hostile media; political minorities need not fear the existence of bias against them, as it will have a salutary effect on those political independents who are not already disposed to support them.

Chapter 5: General Discussion

These three studies were designed to investigate the operation of the Linguistic Expectancy Bias in the American print media, as well as to unpack some of the consequences that media messages biased in this fashion might have on an audience. Despite the strength of the LEB model in other samples and settings, no evidence of media bias was found in two journalistic domains. In newspaper reports of football games played between bitter rivals, no evidence for the LEB was found, despite strong theoretical indications that there should have been such evidence. Likewise, no evidence was found of the LEB in newspaper reports about the 2004 Presidential election. In addition, the manipulation in study 3 showed the unexpected, paradoxical result that messages that are linguistically biased against a target actually seem to result in greater liking for that target. These findings are difficult to interpret in light of the current LEB, and it is not clear whether the odd results are the result of this particular methodology, or if they pose a difficulty for the LEB model. However, while the studies did not perform as expected, there are some interesting possibilities raised by these results. First, is the LEB a worthwhile analytical measure despite this result? Second, under what conditions should one expect to find the LEB, and when will its operation be diminished or altered? Third, why do people believe in media bias despite ample scientific evidence to the contrary?

The LEB's utility as a communications research tool. The primary goal of the current research was to use sophisticated methods derived from psychological principles to investigate the operation of linguistic abstraction in the context of a real-world

problem, widespread perceptions of media bias. No systematic differences were found in either the football (Study 1) or the election (Study 2) samples, but this does not necessarily indicate that such methods should not be applied to the study of such phenomena. Indeed, it does not even fully rule out the use of the LEB in such matters. This study has shown the limitations of a purely LEB-centric approach when applied to the print media, but given the preponderance of evidence supporting the operation of the LEB in normal communications, it remains unlikely that professional writers are completely immune from these influences. Both studies included some articles that did exhibit the LEB, suggesting that perhaps there are individual differences in writing style that could contribute to variations in linguistic abstraction.

In addition, the current study dealt only with factual reports and, as a result, was rather conservative; LEB effects might have been found in more clearly partisan communications (for example, newspaper columns). LEB effects may also be stronger in other media types, such as televised news. Compared to electronic media, authors and editors of print articles generally have longer lead times before the ultimate publication of an item, which may make it easier to strip out its obvious linguistic biases before it sees print. Televised media—cable news especially—places a premium on speed, and this precludes lengthy deliberation over any particular sentence; the reporter or anchor who reads these items may also go "off script," and thus demonstrate the LEB in this way as well. Further study is needed to better understand why and when the LEB is exhibited.

With that being said, it appears that the LEB on its own may be insufficient to detect partisan bias in American print media samples, at least when applied in the way described in this study. The weaknesses of the LEB when applied to such samples are

several-fold. First, it is limited in what it can be applied to; despite their undeniable value, great swaths of the articles included in these studies went uncoded—direct quotations, for example, were not included, though an enterprising reporter could certainly give off a certain impression by his or her selection of what quotes to include in a piece. Beyond that, the LCM's coding system is relatively crude compared to the demands of actual language. While it divides language into distinct categories based upon abstraction, it makes no attempt to further subdivide those categories; for example, according to the current LCM coding scheme, nouns are weighted the same as adjectives, though these differ considerably in their inferential importance (Carnaghi et al., 2008). Nor is valence graded in this system; words and phrases are coded either as positive or negative, with no shades of positivity or negativity brought under consideration. These refinements to the LEB itself might result in a more useful measure of bias.

Second, the LEB omits linguistic properties that are known to be important to inferential processes; it was never designed to be a complete model of human communication, and the gaps in its utility show clearly when it is applied to real-world communications. The LEB does not take into account vividness information, though this has been shown to affect judgments of subjective truth (Hansen & Wanke, 2010). Newspapers are in the business of selling information to their customers, and in a crowded ecosystem that information must be exciting to a potential audience. It stands to reason that if there is to be a bias, it may be expressed such that favored parties receive more interesting, more exciting descriptions of their actions than do disfavored parties. A cursory glance at the football articles suggests that there is merit to this suggestion: a home team "grinds" and "pounds," a rival team "runs" and "hits," but despite the obvious

differences in these descriptions, both are coded in the same way. The LEB also has no means of handling negation, despite the fact that negation messages are not processed the same as affirmation messages (Mayo, Schul & Burnstein, 2004); nor does it allow for tergiversation, or "weasel words." The phrases "Mark Sanchez played poorly" and "Mark Sanchez did not play well" are rated as equivalent in the LEB coding system, though it is clear to any lay reader that they are not.

Third, the reliability of the LEB may depend quite heavily on whom it is that is doing the coding. The reliabilities achieved in our two archival studies are rather disappointingly low, especially when compared to other archival studies in this domain (e.g. Schmid & Fiedler, 1996; Schmid, 1999). However, there are significant differences between these articles and the current studies. The coders involved in our studies were all Temple University undergraduates—intelligent undergraduates, but undergraduates all the same. This step was necessary so that the coders could be made blind to the source of the articles they were coding. In the studies listed above, the coders were considerably more sophisticated than undergraduates. In the first, both authors (including Klaus Fiedler, one of the creators of the LCM) were directly involved in coding their materials, the prosecutor's speeches at the Nuremberg Trials; in the second, it is not clear who their coders were, but they are listed as "experts" in the LCM, and one is explicitly described as "a psychologist," suggesting that at least one coder held an advanced degree. It may be that the LEB has generally high reliability and that the current protocol was flawed in a way that precluded obtaining it (for example, more months of training may have been necessary); it may also be that more-educated research assistants are needed in order to attain satisfactorily high levels of reliability.

Thus, if the LEB is to be applied to media reports, there are several improvements that must be made to it in order to accommodate the way humans actually communicate. The LEB is far from the only linguistic variation that humans commonly use, and these variations (including those listed above) could be combined to create a rich psychologically-based measure of media bias. Such a measure would be extremely (perhaps prohibitively) complex and difficult to administer; however, if we wish to understand the role that linguistic abstraction plays in real-world communications, the effort would be worthwhile.

Normal and abnormal operation of the LEB. The LEB should operate cleanly in intergroup settings; members of an ingroup should be described with abstractly positive and concretely negative words, and the opposite for members of an outgroup. However, as early as the very first LEB paper (Maass et al., 1989), this contention has shown signs of strain. While their first experiment showed the classic LEB pattern, the second experiment showed greater abstraction for negative descriptions, both for ingroup and outgroup members (though the gulf was greater for outgroup members, partially supporting the LEB). The difference between Experiments 1 and 2 lies in the responses given by participants: in 1, they were asked to select from a list of alternatives, while in 2, they were asked to generate responses in their own words. This difference, though seemingly small, is important because of the added complexity involved when participants are able to provide their own responses; an LEB that works according to plan in a relatively simplistic forced-choice paradigm may be subject to added variation (both noise and otherwise) when free responses are coded.

The body of literature on the LEB is very small, but similar anomalous results

have cropped up in other studies as well (Maass, Cecarelli & Rudin, 1996). In our study 1, we too showed marginally greater abstraction for negative than positive statements about NFL teams. It may be that the LEB cannot operate in an intergroup setting unless parties are made actively aware of their group status. In Wigboldus, Spears and Semin (2005), the LEB not only did not manifest when the actor and recipient of a message belonged to the generator's ingroup, but the reverse effect occurred, with expectancy-consistent actions being described at a lower level of abstraction than expectancy-inconsistent actions. However, this effect was not consistent across their two studies, and it is not clear why this reversal occurred in one study and not the other. It is possible that our samples contained articles written by journalists who were unaware of their, their targets', and their audience's group status, though this seems somewhat unlikely. Further study into this area is sorely needed to determine why the LEB might reverse itself in certain settings, as well as delineate how salient group status has to be for the LEB to appear.

The persistence of belief in media bias. As discussed above, the LEB is limited in several ways that may have hobbled it, but the fact remains that no bias was displayed via this measure, weakening the hypothesis that Americans are using linguistic abstraction to decide whether or not their media are biased. Though I am by no means a media apologist, I believe now that it may be a mistake to look to the media as the source of media bias. The best-designed previous studies (Niven, 2002; D'Alessio & Allen, 2000, 2007; Adkins-Covert & Wasburn 2007, 2009) find no systematic evidence of partisan bias; the current suite of studies found no conclusive evidence of bias either, despite there being strong theoretical indications that it should manifest in these articles.

Why, then, do people continue to believe that such bias exists?

It may be that the reason Americans believe so strongly in media bias is that people in general seem to believe in media bias. Belief in media bias is by no means a strictly American pursuit; a majority of Canadians believe similarly, though a study of Canadian election coverage found it to be fair (excluding a pronounced frontrunner bias; Barber, 2008), and evidence of the hostile media phenomenon (HMP) is found in democracies as diverse as Indonesia, Israel and South Korea (Ariyanto, Hornsey & Gallois, 2007; Tsfati, 2007; Choi, Yang & Chang, 2009). The HMP was even demonstrated in Singapore, a *de facto* one-party state where the media are restricted in their operations by the government—but only for those individuals who were partisan, not those who were disinterested in the topic presented to them (Chia et al., 2007). Research into the operation of the HMP in Bosnian Serbs and Muslims (Matheson & Dursun, 2001) suggests that the HMP may be the result of strong ingroup identification and a clear differentiation between social groups. If this is the case, then it is no surprise that Americans' belief in media bias has steadily risen over time; as the nation grows more and more politically polarized, the distinctions between groups are thrown into harsh relief. The timing of the first sustained claims about liberal media bias seems to support this hypothesis; the first popular book to make such claims, Edith Efron's *The News Twisters* (1971), was published after one of the most tumultuous and divisive decades in American history.

If the people, not the media, are the source of media bias, then any attempts to explain media bias by examining the media are foolhardy. A better approach is to understand how political partisans come by this belief, and how they may continue to

support it. The recent controversy over NPR's purported liberal bias proves, unexpectedly, serendipitous; its media-analysis program, *On the Media*, recently attempted to determine whether or not NPR truly was biased by asking a conservative listener what he meant when he said that the network was liberally biased (Gladstone, 2011). He provided the following examples:

1. A panelist on a news talk show had a pleased tone of voice when discussing the prospects for unions in the wake of the Wisconsin labor unrest; no other guest shared the listener's views on the subject.

2. The anchors on *Morning Edition* had a happy tone of voice after the Democrats took back Congress in 2006.

3. The interview show *Fresh Air* had a heretical Christian on the program on Good Friday, 2008. No counterpoint was offered during the program, and the listener has never heard a guest who discussed religion in a way that pleased him.

These three examples are illuminating; they outline very clearly why attempts to find systematic media bias as an explanation for perceptions of media bias are doomed to failure. Simply put, it is doubtful that people make use of systematic information when attempting to assess the media. For some traits, a dispositional attribution is made by the most extreme behavior that a person performs, not their most common; honest behavior on a single occasion does not mark a person as dispositionally honest, but a single dishonest act marks them as dishonest (Reeder & Brewer, 1979). By virtue of its ambiguity (it is notoriously hard to define, even by political scientists), media bias may be this kind of hierarchical trait. It may not matter that a media outlet is completely

balanced the vast majority of the time; it is supposed to be that way, and if it is unbiased in the majority of instances, this information is not diagnostic. If it slips visibly just once, then it might forever be marked as biased—and even though it continues to be fair, the audience's trust is broken because they know now that the outlet is capable of bias.

But even beyond this, it may not matter at all if the media are biased or not, as ideas, once accepted, prove exceedingly hard to extinguish. Thanks to the confirmation bias, new information is interpreted in light of what is already known, and evidence that challenges one's beliefs is either ignored or made to fit what we already believe (Nickerson, 1998). In the political sphere, this results in a world where half of each party believes terrible, patently false notions about the other; at one point, roughly half of Republicans believed President Obama was not born in this country (Page, 2011), and roughly half of Democrats thought 9/11 was a "false flag" perpetrated by the Bush administration (Hargrove & Stempel, 2006). In an environment where accusations of media bias have been made for over 40 years, it is not surprising that so many Americans believe it to be true—after hearing anything long enough and loudly enough, anything can be believed (Gilbert, 1991).

Regrettably, this belief has real consequences for the health of the American body politic. While it is unlikely that anyone will be spurred to armed rebellion because they do not trust Brian Williams, a belief does not have to cause violence to cause harm. When presented with articles that either confirm or deny their personal attitudes, people prefer to read that which confirms what they already believe (Knobloch-Westerwick & Meng, 2009). In a society with only a few monolithic news sources (newspapers and the evening news), this would not pose much of a problem, as it is likely that citizens would

continue to be exposed to news and viewpoints that contradicted their own. But America is no longer that society; it is fragmented, and Americans are now fleeing to enclaves of people who share their beliefs and to media outlets that cater to their every (and only) whim (Bishop, 2008). The effects of this polarization are manifold: while being ensconced in a cozy social network of political peers makes one likelier to vote (Mutz, 2002a), a lack of exposure to other viewpoints decreases one's tolerance for political opponents (Mutz, 2002b). Despite calls for unity and bipartisanship, it is hard to imagine such things in the current political climate; as the Tea Party's dominance of the 2010 election showed, there is little reward for civility at the polls. Unless social scientists can come up with creative ways to combat it, America's embrace of political viciousness threatens her status as a great nation.

References Cited

Adkins-Covert, T. J. & Wasburn, P. C. (2007). Measuring media bias: A content analysis of Time and Newsweek coverage of domestic social issues, 1975-2000. *Social Science Quarterly. 88*, 690-706.

Adkins- Covert, T. J. & Wasburn, P. C. (2009). *Media bias? A comparative study of Time, Newsweek, The National Review, and The Progressive coverage of domestic social issues, 1975-2000.* New York: Lexington Books.

Advertising Age (2004, August 20). *Top 50 newspapers by circulation.* Retrieved from http://adage.com/datacenter/article?article_id=106851.

Ariyanto, A., Hornsey, M. J., & Gallois, C. (2007). Group allegiances and perceptions of media bias: Taking into account both the perceiver and the source. *Group Processes: Intergroup Relations, 10,* 266-279.

Babad, E. (2005). The psychological price of media bias. *Journal of Experimental Psychology: Applied, 11,* 245-255.

Bishop, B. (2008). *The Big Sort: Why the clustering of like-minded America is tearing us apart.* New York: Houghton Mifflin Harcourt.

Cain, D. M., Loewenstein, G., & Moore, D. (2005). The dirt on coming clean: Perverse effects of disclosing conflicts of interest. *Journal of Legal Studies, 34,* 1-25.

Carnaghi, A., Maass, A., Gresta, S., Bianchi, M., Cadinu, M. & Arcuri, L. (2008). Nomina sunt omnia: On the inductive potential of nouns and adjectives in person perception. *Journal of Personality and Social Psychology, 94,* 839-859.

Choi, J., Yang, M., & Chang, J. J. C. (2009). Elaboration of the hostile media

phenomenon: The roles of involvement, media skepticism, congruency of perceived media influence, and perceived opinion climate. *Communication Research, 36,* 54-75.

Coenen, L. H. M., Hedebouw, L., & Semin, G. R. (2006). *Measuring language abstraction: The Linguistic Category Model (LCM).* Retrieved from http://www.cratylus.org.

Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement, 20,* 37-46.

D'Alessio, D., & Allen, M. (2000). Media bias in Presidential elections: A meta-analysis. *Journal of Communication,* 133-156.

D'Alessio, D. & Allen, M. (2007). On the role of newspaper ownership on bias in Presidential campaign coverage by newspapers. In R. W. Preiss, B. M. Gayle, N. Burrell, M. Allen, and J. Bryant (Eds.), *Mass media effects research: Advances through meta-analysis* (pp. 429-454). Mahwah, NJ: Lawrence Erlbaum Associates.

Davison, W. P. (1983). The third person effect in communication. *Public Opinion Quarterly, 47,* 1-15.

Dellavigna, S. & Kaplan, E. (2007). The Fox News Effect: Media bias and voting. *The Quarterly Journal of Economics, 122,* 1187-1234.

Domke, D., Watts, M. D., Shah, D. V., & Fan, D. P. (1999). The politics of conservative elites and the "liberal media" argument. *Journal of Communication, 49,* 35-59.

Douglas, K. M., & Sutton, R. M. (2006). When what you say about others says something about you: Language abstraction and inferences about describers'

attitudes and goals. *Journal of Experimental Social Psychology, 42,* 500-508.

Douglas, K. M., Sutton, R. M., & Wilkin, K. (2008). Could you mind your language? An investigation of communicators' ability to inhibit linguistic bias. *Journal of Language and Social Psychology, 27,* 123-139.

Douglas, K. M., & Sutton, R. M. (2010). By your words shall ye know them: Language abstraction and the likability of describers. *European Journal of Social Psychology, 40,* 366-374.

Druckman, J. N. & Parkin, M. (2005). The impact of media bias: How editorial slant affects voters. *The Journal of Politics, 67,* 1030-1049.

Efron, E. (1971). *The news twisters.* Los Angeles: Nash Publishing.

Faul, F., Erfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39,* 175-191.

Fiedler, K. & Semin, G. R. (1992). Attribution and language as a socio-cognitive environment. In G. R. Semin & K. Fiedler (Eds.), *Language, interaction and social cognition* (pp. 79-101). Thousand Oaks, CA: Sage Publications.

Franco, F. M. & Maass, A. (1999). Intentional control over prejudice: When the choice of the measure matters. *European Journal of Social Psychology, 29,* 469-477.

Gerber, A. S., Karlan, D., & Bergan, D. (2009). Does the media matter? A field experiment measuring the effect of newspapers on voting behavior and political opinions. *American Economic Journal: Applied Economics 2009, 1,* 35-52.

Gergen, K. J. (1973). Social psychology as history. *Journal of Personality and Social Psychology, 26,* 309-320.

Geschke, D., Sassenberg, K., Ruhrmann, G., & Sommer, D. (2010). Effects of linguistic abstractness in the mass media: How newspaper articles shape readers' attitudes toward migrants. *Journal of Media Psychology: Theories, Methods and Applications, 22,* 99-104.

Gilbert, D. T. (1991). How mental systems believe. *American Psychologist, 46,* 107-119.

Gladstone, B. (Host and managing editor). (2011, March 18). Does NPR have a liberal bias [Radio broadcast episode]? In J. Keefe [Executive producer], *On the Media.* New York: WNYC.

Goldschmeid, N., & Vandello, J. A. (2009). The advantage of disadvantage: Underdogs in the political arena. *Basic and Applied Social Psychology, 31,* 24-31.

Gorham, B. (2006). News media's relationship with stereotyping: The linguistic intergroup bias in response to crime news. *Journal of Communication, 56,* 289-308.

Greenwald, A. G., McGhee, D. E., & Schwarz, G. L. K. (1998). Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology, 74,* 1464-1480.

Greenwald, A. G., Nosek, B. A., & Banaji, M. R. (2003). Understanding and using the Implicit Association Test: An improved scoring algorithm. *Journal of Personality and Social Psychology, 85,* 197-216.

Gunther, A. C. & Chia, S. C-Y. (2001). Predicting pluralistic ignorance: The hostile media perception and its consequences. *Journalism and Mass Communication Quarterly, 78,* 688-701.

Gunther, A. C. & Storey, J. D. (2003). The influence of presumed influence. *Journal of*

Communication, 53, 199-215.

Hamilton, D. L., Gibbons, P. A., Stroessner, S. J., & Sherman, J. W. (1992). Stereotypes and language use. In G. R. Semin & K. Fiedler (Eds.), *Language, interaction and social cognition* (pp. 102-128). Thousand Oaks, CA: Sage Publications.

Hampson, S. E., Goldberg, L. R., & John, O. P. (1987). Category-breadth and social desirability values for 573 personality terms. *European Journal of Personality, 1,* 37-54.

Hansen, J., & Wänke, M. (2010). Truth from language and truth from fit: The impact of linguistic concreteness and level of construal on subjective truth. *Personality and Social Psychology Bulletin, 36,* 1576-1588.

Hargrove, T. & Stempel, G. H. (2006, August 2). *Anti-government anger spurs 9/11 conspiracy belief.* Retrieved from http://www.newspolls.org/articles/19604.

Harris, R. J. (2004). *A cognitive psychology of mass communication* (4th ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Hovland, C. I. & Weiss, W. (1951-1952). The influence of source credibility on communication effectiveness. *Public Opinion Quarterly, 15*, 635-650.

Iyer, V. (2009, May 16). *Ravens-Steelers moves to top of NFL rivalries.* Retrieved from http://www.sportingnews.com/nfl/article/2009-05-16/ravens-steelers-moves-top-nfl-rivalries.

Johnson, R. (2008). *Monsters of Gridway: Top ten NFL rivalries.* Retrieved from http://bleacherreport.com/articles/19781-monsters-of-gridway-top-ten-nfl-rivalries.

Jones, J. M. (2008, December 29). *Football remains runaway leader as favorite sport.*

Retrieved from http://www.gallup.com/poll/113503/Football-Remains-Runaway-Leader-Favorite-Sport.aspx.

Karpinski, A., & Steinman, R. B. (2006). The Single Category Implicit Association Test as a measure of implicit social cognition. *Journal of Personality and Social Psychology, 91,* 16-32.

Karpinski, A., & von Hippel, W. (1996). The role of the linguistic intergroup bias in expectancy maintenance. *Social Cognition, 14,* 141-163.

Kim, J., Allison, S. T., Eylon, D., Goethals, G. R., Markus, M. J., Hindle, S. M., & McGuire, H. A. (2008). Rooting for (and then abandoning) the underdog. *Journal of Applied Social Psychology, 38,* 2550-2573.

Knobloch-Westerwick, S., & Meng, J. (2009). Looking the other way: Selective exposure to attitude-consistent and counterattitudinal political information. *Communication Research, 36,* 426-448.

Ladd, J. M. (2010). The neglected power of elite opinion leadership to produce antipathy toward the news media: Evidence from a survey experiment. *Political Behavior, 32,* 29-50.

Landis, J. R. & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics, 33,* 159-174.

Lee, T.-T. (2005). The liberal media myth revisited: An examination of factors influencing perceptions of media bias. *Journal of Broadcasting & Electronic Media, 49,* 43-64.

Loftus, E. F. & Palmer, J. C. (1974). Reconstruction of automobile destruction: An example of the interaction between language and memory. *Journal of Verbal*

Learning and Verbal Behavior, 13, 585-589.

Luntz, F. (2007). *Words that work.* New York: Hyperion.

Maass, A. (1999). Linguistic intergroup bias: Stereotype perpetuation through language. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 31, pp. 79-121). San Diego, CA: Academic Press.

Maass, A., Cecarelli, R., & Rudin, S. (1996). Linguistic intergroup bias: Evidence for ingroup-protective motivation. *Journal of Personality and Social Psychology, 71,* 512-526.

Maass, A., Corvino, P., & Arcuri, L. (1994). Linguistic intergroup bias and the mass media. *Revue de Psychologie Sociale, 1,* 31-43.

Maass, A., Milesi, A., Zabbini, S., & Stahlberg, D. (1995). Linguistic intergroup bias: Differential expectancies or in-group protection? *Journal of Personality and Social Psychology, 68,* 116-126.

Maass, A., Salvi, D., Arcuri, L., & Semin, G. R. (1989). Language use in intergroup contexts: The linguistic intergroup bias. *Journal of Personality and Social Psychology, 57,* 981-993.

Matheson, K., & Dursun, S. (2001). Social identity precursors to the hostile media phenomenon: Partisan perceptions of coverage of the Bosnian conflict. *Group Processes: Intergroup Relations, 4,* 116-125.

Mayo, R., Schul, Y., & Burnstein, E. (2004). "I am not guilty" vs. "I am innocent": Successful negation may depend on the schema used for its encoding. *Journal of Experimental Social Psychology, 40,* 433-449.

McGraw, K. M., Fischle, M., Stenner, K., & Lodge, M. (1996). What's in a word? Bias in

trait descriptions of political leaders. *Political Behavior, 18,* 263-287.

Mercurio, E., & Filak, V. F. (2010). Roughing the passer: The framing of Black and White quarterbacks prior to the NFL Draft. *The Howard Journal of Communication, 21,* 56-71.

Mutz, D. C. (2002a). The consequences of cross-cutting networks for political participation. *American Journal of Political Science, 46,* 838-855.

Mutz, D. C. (2002b). Cross-cutting social networks: Testing democratic theory in practice. *The American Political Science Review, 96,* 111-126.

Ng, S. H., & Tait, J. (1994). Biases of journalists' linguistic representation of intergroup events. Unpublished manuscript, Victoria University of Wellington, N.Z.

Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology, 2,* 175-220.

Niven, D. (2002). *Tilt? The search for media bias.* Westport, CT: Praeger Publishers.

Nosek, B. A., Greenwald, A. G., & Banaji, M. R. (2007). The Implicit Association Test at age 7: A methodological and conceptual review. In J. A. Bargh (Ed.), *Automatic processes in social thinking and behavior* (pp. 265-292). Psychology Press.

Page, S. (2011, April 26). *Poll: What kind of President would Donald Trump make?* Retrieved from http://www.usatoday.com/news/politics/2011-04-25-trump-president-poll.htm.

Peake, J. S. (2007). Presidents and front-page news: How America's newspapers cover the Bush administration. *The Harvard International Journal of Press/Politics, 12,* 52-70.

Pew Project for Excellence in Journalism (2008). *The Web: Alarming, appealing and a challenge to journalistic values.* Retrieved from http://www.stateofthemedia.org/ 2008/Journalist%20report%202008.pdf?cat=2&media=3.

Pew Research Center for People and the Press (2009). *Public evaluations of the news media:1985-2009.* Retrieved from http://people-press.org/reports/pdf/543.pdf.

Reeder, G. D., & Brewer, M. B. (1979). A schematic model of dispositional attribution in person perception. *Psychological Review, 86,* 61-79.

Schmid, J. (1999). Pinning down attributions: The linguistic category model applied to wrestling reports. *European Journal of Social Psychology, 29,* 895-907.

Schmid, J. & Fiedler, K. (1996). Language and implicit attributions in the Nuremberg Trials: Analyzing prosecutors' and defense attorneys' closing speeches. *Human Communication Research, 22,* 371-398.

Semin, G. R. & Fiedler, K. (1988). The cognitive functions of linguistic categories in describing persons: Social cognition and language. *Journal of Personality and Social Psychology, 54,* 558-568.

Semin, G. R. & Fiedler, K. (1989). Relocating attributional phenomena within a language-cognition interface: The case of actors' and observers' perspectives. *European Journal of Social Psychology, 19,* 491-508.

Semin, G. R. & Fiedler, K. (1992). The inferential properties of interpersonal verbs. In G. R. Semin & K. Fiedler (Eds.), *Language, interaction and social cognition* (pp. 58-78). Thousand Oaks, CA: Sage Publications.

Sheppard, S. (2008). *The partisan press: A history of media bias in the United States.* Jefferson, NC: McFarland & Company.

SportsIllustrated.com (2005). *Top 10 NFL rivalries of all time.* Retrieved from

http://sportsillustrated.cnn.com/multimedia/photo_gallery/2005/12/15/gallery.

oldrivals/content.1.html.

Snyder, S. (2009). *10 2009 NFL rivalries to look out for.* Retrieved from

http://bleacherreport.com/articles/197267-10-2009-nfl-rivalries-to-look-out-for.

Tanabe, Y. & Oka, T. (2001). Linguistic intergroup bias in Japan. *Japanese*

Psychological Research, 43, 104-111.

Tsfati, Y. (2007). Hostile media perceptions, presumed media influence, and minority

alienation: The case of Arabs in Israel. *Journal of Communication, 57,* 632-651.

Tsfati, Y. & Cohen, J. (2005). Democratic consequences of hostile media perceptions:

The case of Gaza settlers. *The Harvard International Journal of Press/Politics,*

10, 28-51.

Tversky, A. & Kahneman, D. (1981). The framing of decisions and the psychology of

choice. *Science, 211,* 453-458.

Vandello, J. A., Goldschmeid, N. P., & Richards, D. A. R. (2007). The appeal of the

underdog. *Personality and Social Psychology Bulletin, 33,* 1603-1616.

von Hippel, W., Sekaquaptewa, D., & Vargas, P. (1997). The linguistic intergroup bias as

an implicit indicator of prejudice. *Journal of Experimental Social Psychology, 33,*

490-509.

Vygotsky, L.S. (1986). *Thought and language (revised edition).* A. Kozulin (Ed.),

Cambridge, MA: MIT Press.

Wall, M.A. & Bicket, D. (2008). The "Baghdad Broadcasting Corporation": US

conservatives take aim at the British news media. *Journalism, 9,* 123-140.

Watts, M.D., Domke, D., Shah, D.V., & Fan, D.P. (1999). Elite cues and media bias in

Presidential campaigns: Explaining public perceptions of a liberal press.

Communication Research, 26, 144-175.

Weiss, W. (1953). A "sleeper" effect in opinion change. *Journal of Abnormal and Social*

Psychology, 48, 173-180.

Whorf, B. L. (1964). The relation of habitual thought and behavior to language. In J.B.

Carroll (Ed.), *Language, thought and reality: Selected writings* (pp. 134-159)*.*

Cambridge: MIT Press.

Wigboldus, D. H. J., Semin, G. R., & Spears, R. (2000). How do we communicate

stereotypes? Linguistic biases and inferential consequences. *Journal of*

Personality and Social Psychology, 78, 5-18.

Wigboldus, D. H. J., Semin, G. R., & Spears, R. (2006). Communicating expectancies

about others. *European Journal of Social Psychology, 36,* 815-824.

Wigboldus, D. H. J., Spears, R., & Semin, G. R. (2005). When do we communicate

stereotypes? Influence of the social context on the Linguistic Expectancy Bias.

Group Processes: International Relations, 8, 215-230.

Appendix

NFL rivalries and associated newspapers [Study 1]

Rivalry	Game	Newspapers
Green Bay Packers/Chicago Bears	9/13/09	*Milwaukee Journal-Sentinel, Chicago Tribune*
Cleveland Browns/Cincinnati Bengals	10/4/09	*Cleveland Plain-Dealer, Cincinnati Enquirer*
New York Jets/Miami Dolphins	10/12/09	*New York Post, Miami Herald*
Green Bay Packers/Minnesota Vikings	11/1/09	*Green Bay Press-Gazette, Minnesota Star-Tribune*
Philadelphia Eagles/New York Giants	11/1/09	*Philadelphia Inquirer, New York Daily News*
Atlanta Falcons/New Orleans Saints	11/2/09	*Atlanta Journal-Constitution, New Orleans Times-Picayune*
Indianapolis Colts/New England Patriots	11/15/09	*Indianapolis Star, Boston Globe*
San Diego Chargers/Denver Broncos	11/22/09	*San Diego Union-Tribune, Denver Post*
Dallas Cowboys/Washington Redskins	11/23/09	*Dallas Morning News, Washington Post*
Baltimore Ravens/Pittsburgh Steelers	12/27/09	*Baltimore Sun, Pittsburgh Post-Gazette*

Newspaper sample, including editorial endorsements [Study 2]

Endorsed Kerry	Endorsed Bush	Declined to Endorse
New York Times	Wall Street Journal	Los Angeles Times
Washington Post	New York Daily News	Cleveland Plain-Dealer
San Francisco Chronicle	Chicago Tribune	
Boston Globe	New York Post	
Newark Star-Ledger	Houston Chronicle	
Philadelphia Inquirer	Dallas Morning News	
Atlanta Journal-Constitution	San Diego Union-Tribune	
St. Petersburg Times	Denver Post	
St. Louis Post-Dispatch	Columbus Dispatch	
Milwaukee Journal-Sentinel	Boston Herald	
Pittsburgh Post-Gazette		

Experimental Article [Study 3]

Title: BAKER TO RUN FOR U.S. SENATE

Colorado State Representative Tom Baker has announced his intentions to run for Colorado's United States Senate seat in this fall's election. Baker, a **[Democrat/Republican]**, has served in Colorado's General Assembly since 2004. This is his first run for national office.

Positive action: fosters communication with voters & provides a forum to speak

Abstract:
As a state representative, Baker is open to his constituents' opinions. "I want to hear what the people have to say to me, even if we disagree," Baker says. He enjoys the opportunities he has to communicate with voters over the phone and via e-mail, even staying late in his office to do so. Baker has met with voters to discuss topics that they are concerned about, like the economy. He says, "The citizens' concerns are my concerns as well."

Concrete:
As a state representative, Baker provides ways for his constituents to contact him. "I want to hear what the people have to say to me, even if we disagree," Baker says. He listens to phone calls when he can and replies to some voter e-mails personally, even staying late in his office to do so. Baker has attended town hall meetings on topics that voters are concerned about, like the economy. He says, "The citizens' concerns are my concerns as well."

Negative action: evasive answers to questions from reporters and voters

Abstract:
Despite this, Baker is evasive on certain topics. His stance on tax increases is unknown, and he was unclear when asked by reporters whether he supported nuclear energy. While many pundits believe that this tendency is typical of politicians, some voters in Baker's district are disappointed by how vague he sometimes is. "I wish I could get a straight answer out of him," says Michelle Walker, a local mom.

Concrete:
Despite this, Baker avoids answering questions on certain topics. He refuses to state whether he supports tax increases, and did not say for certain whether he supported nuclear energy when asked by reporters. While many pundits believe that this tendency is typical of politicians, some voters in Baker's district are disappointed that he sometimes speaks in a way that can be hard to interpret. "I wish I could get a straight answer out of him," says Michelle Walker, a local mom.

Final graf:

Baker is confident that he will win election to the Senate. "I look forward to representing the people of the Great State of Colorado in our nation's Capitol," he said.

Political Attitudes Questionnaire [Study 3]

Please answer the following questions honestly and to the best of your ability. If you are confused about what a question is asking of you, please speak to the person conducting the study. If you feel uncomfortable answering a question, please leave it blank.

1. **In general, what is your impression of Tom Baker?**

1	2	3	4	5	6	7
Very Positive			Neither positive nor negative			Very Negative

2. **Do you think that Tom Baker would make a good Senator?**

1	2	3	4	5	6	7
Definitely yes			Not sure			Definitely not

3. **If he were running for office in your home state, would you vote for Tom Baker?**

1	2	3	4	5	6	7
Definitely yes			Not sure			Definitely not

4. **In general, what is your impression of the Democratic party?**

1	2	3	4	5	6	7
Very Positive			Neither positive nor negative			Very Negative

5. **In general, what is your impression of the Republican party?**

1	2	3	4	5	6	7
Very Positive			Neither positive nor negative			Very Negative

6. **What do you consider your political ideology to be?**

1	2	3	4	5	6	7
Strongly Liberal			Moderate			Strongly Conservative

Source Impression Questionnaire [Study 3]

Please think back to the article that you just read. We would like you to answer some questions about the article and the people who wrote the article. Please answer these honestly and to the best of your ability. If you are unsure about what a question is asking of you, please speak to the researcher. If you feel uncomfortable answering a question, please leave it blank.

1. **The article I read was biased.**

1	2	3	4	5	6	7
Strongly Agree			Neither agree nor disagree			Strongly Disagree

2. **The article I read was [in favor of/opposed to] Tom Baker.**

1	2	3	4	5	6	7
Strongly Agree			Neither agree nor disagree			Strongly Disagree

3. **If you thought that the article was biased, what party did you think it favored?**

The Republican Party.   The Democratic Party.   I'm not sure.   I don't think it was biased.

4. **The author of this article is biased for one political party over the other.**

1	2	3	4	5	6	7
Strongly Agree			Neither agree nor disagree			Strongly Disagree

5. **The author of this article is probably a:**

   Republican.   Democrat.   I don't know.

6. **The editor of this newspaper is biased for one political party over the other.**

1	2	3	4	5	6	7
Strongly Agree			Neither agree nor disagree			Strongly Disagree

7. **The editor of this newspaper is probably a:**

   Republican.   Democrat.   I don't know.