Measuring Anti-Americanism in Editorial Cartoons

By: Mark Long, Rick L. Bunch, and Robert Earl Lloyd

Abstract:

Objective- Anti-Americanism has been subjected to minimal statistical analysis. Further, scant attention is paid to what constitutes anti-Americanism for Americans. The objective of this article is to measure Americans' perceptions of anti-Americanism.
Methods- Using a range of quantitative methods, including Pearson's correlation coefficient, Shannon's entropy measure, and Cohen's *d* statistics, we measure students' evaluations of editorial cartoons after 9/11. Twin measures of *message* and *equity*, along with participant and cartoon variables, are used to calibrate anti-Americanism in Spanish and U.S. editorial cartoons.
Results- Our results indicate that message ratings, that is, anti- or pro-American, were more dependent on the nature of the cartoons than of the participants. White males rated these editorial cartoons as more equitable than other participants. The study shows that Spanish cartoons were rated significantly more anti-American.
Conclusion- The article concludes that the use of U.S. icons is key to seeing anti-Americanism, along with gender, race, and origin of cartoon.

Article:

Anti-Americanism is increasingly salient in popular and scholarly discourses in the United States in this early part of the 21st century, as America's image has "plummeted throughout much of the world" (Kohut, 2007:13). Moreover, Americans' fears regarding anti-Americanism run deep (Lambert, 1954; Thornton, 1988) and, thus, this recent angst reflects longstanding concerns. As Americans themselves, from the president to intellectuals to college students, partake actively in this geopolitical scripting (Ó' Tuathail and Agnew, 1992), it is important to know what anti-Americanism means to Americans. There may be other reasons for renewed interest in anti-Americanism beyond 9/11. Rubin and Rubin (2004), for example, argue that anti-Americanism is a response to the hegemonic world that arose with the collapse of the Soviet Union, and America's unprecedented power became more clearly visible worldwide (Ikenberry, 2005).

In spite of increased attention from scholars over the last few years, there is still much ambiguity around the term "anti-Americanism." This is hardly surprising given the power of anti-Americanism as a label and its deployment to bolster particular points of view and denigrate others (O'Connor, 2004; Flynn, 2002). If, as recent writing on the subject suggests, the 21st century will be defined by anti-Americanism (Rubin and Rubin, 2004; Sweig, 2006), then the need to more fully understand it is pressing.

The literature on anti-Americanism in the aftermath of the 2001 terrorist attacks in the United States continues to present anti-Americanism as essentially following one of three tracks (Long, 2007). The first of these equates anti-Americanism with hatred akin to misogyny or anti-Semitism (Flynn, 2002; Hollander, 1992, 2002). A second explanation for anti-Americanism posits that it is reactive, driven by U.S. policy decisions, particularly foreign policy (Ikenberry, 2005; McPherson, 2003; Rubinstein and Smith, 1985; Shin, 1996; Steinberg, 2005). A final variant of anti-Americanism sees it as a response to processes of modernization in the United States from the 19th century onward, whereby it was increasingly clear, first to European elites and later to elites worldwide, that the United States constituted a model for developments within their own societies, what Taylor has defined as prime modernity (cf. Falah, Flint, and Mamadouh, 2006). As changes manifested themselves, the United States became a scapegoat for at least some of the dislocations of modernity (Diner, 1996; Epstein, 2005; Ickstadt, 2004; Roger, 2005; Rubin and Rubin, 2004).

Definitions of anti-Americanism are notoriously imprecise (Shin, 1996). Although it is easy to access what anti-Americanism means in places from Latin America (McPherson, 2004) to France (Meunier, 2005) to Russia (Shiraev and Zubok, 2000) to Korea (Kim, 2002), the literature does not adequately address what Americans themselves understand anti-Americanism to be. This research examines the question of anti-Americanism for everyday Americans. It measures responses of U.S. college students to a series of visual commentaries generated in the aftermath of 9/11 by editorial cartoonists in Spain and the United States. Our purpose is to measure how anti-Americanism and its variants resonate with Americans.

EDITORIAL CARTOONS AND THE VISUALIZATION OF ANTI-AMERICANISM
Despite the fact that the heyday of editorial cartoons in the United States is long since past (Lamb, 2004), "[e]ditorial cartoons still have among the highest readership on editorial pages in newspapers and play a significant role in shaping public opinion" (Abel and Filak, 2005:161), and new media suggest alternative avenues for editorial cartoons (Danjoux, 2007). Further, editorial cartoons can play into geopolitics worldwide as the recent controversy over Danish cartoons of Mohammed showed, sparking what was described as a three-month-long "global crisis" in 2005/2006 (Dittmer, 2007; Müller and Özcan, 2007). Through the power of the visual for illiterate audiences in places such as Yemen in the developing world, editorial cartoons can still play the role for mobilization that they once did in the United States and France when literacy rates were much lower in these countries (Corstange, 2007; Kleeman, 2006; Fischer, 1996; Hess and Northrop, 1996). In this sense, too, cartooning in the Arab world today may be as significant as was Thomas Nast's cartooning of 19th-century political corruption in the United States, giving voice to critical perspectives in places where dissent is often silenced by the powerful (Falah, Flint, and Mamadouh, 2006; Fischer, 1996). Dodds (1998) argues that even in the Western world, editorial cartoonists may use their "outsider" status to communicate, in a visual medium, ideas off limits to more mainstream journalists.

Anti-Americanism is central to the scripting of geopolitics over the early 21st century. The cartoonists whose work is used in this study showed themselves to be sensitive to the idea of anti-Americanism. In one image, Spaniard Forges has a man in a cowboy hat chide a young student for his anti-Americanism, offering a bubble gum chewed by George Bush himself if the

student will renounce his anti-Americanism forever. Likewise, Ted Rall, who has given no quarter to Bush's administration (2004) or its foreign policy (2002), parodies his branding by the *Wall Street Journal* as "the most bitterly anti-American cartoonist in America." In one cartoon, he suggests that he will temper his criticism of President George W. Bush, since "[f]or one thing some people are even dumber than Bush. And his suits—I kind of think he dresses OK."

Beyond cartoonists' deliberate efforts to engage the stuff of anti-Americanism, sustained attention on their part to the aftermath of 9/11 means that attitudes to the United States (intrinsically, to its foreign policy, and to the United States as a model for change in the world) can be explored in their work to investigate anti-Americanism. Editorial cartoons epitomize the "everyday experiences and representations of international politics" that are central to popular geopolitics (Dodds, 1996:575). Cartoons are "interesting and pertinent to the study of international relations" because of their transgressive ability to blur the lines between domestic and international politics (Dodds, 1996, 2007). They poke fun at stodgy realist theorizations of international relations that brook no humor.

Here, we also see editorial cartoons revealing key components of international relations at the turn of the 21st century. Although we would not want to suggest that editorial cartoons, or newspapers, determine popular geopolitics—rather, they are part of the range of inputs that people use to make sense of their world—we use them to interrogate the realist domestic/international dichotomy through our investigation of U.S. attitudes to anti-Americanism. In this sense, we chose to study both U.S. and Spanish editorial cartoons together, anticipating that our participants would see anti-Americanism in both domestic and international images.

Rose (2001) has argued that visual images can be studied to understand the discursive production of authoritative accounts. Our study follows Rose's prescription in viewing post-9/11 cartoons as potentially revealing of a discourse of anti-Americanism. Indeed, if anti-Americanism is on the rise, then logically it should be visible in these images and their accompanying texts (Rose, 2001).

RESEARCH DESIGN
Hypotheses
A first goal was to arrive at a set of images to represent the aftermath of 9/11 for our participants. This would allow us to investigate the purported rise in anti-Americanism after 9/11 and to discover which of the variants of anti-Americanism resonated most with a U.S. audience.

To examine these issues, our experiment used characteristics of the participants and of the cartoons. The display of these cartoons generated a response from participants based on all these variables and was mapped in a space defined by cartoon message (how pro- or anti-American the image was) and equity (how fair the cartoon was perceived to be). Thus:

> H_1: *It was hypothesized that there would be a positive relationship between the message and equity dependent variables because we used U.S. participants to rate anti-Americanism and fairness for the cartoons.*

H$_2$: *Beyond a simple linear relationship as represented by Hypothesis 1, it was also hypothesized that the ratings for each of the dependent variables (message and equity) would be consistent among the participants. This consistency in participant responses for each dependent variable should follow a U-shaped pattern based on measures of variation for cartoon ratings.*

H$_3$: *Participant variables such as gender, race, and political preference would be significantly different for our dependent variables of cartoon message and cartoon equity (Flynn, 2002; Harlow and Dundes, 2004; Azim et al., 2005). Our logic here is that the complex profile of each individual participant, as captured by our independent variables, would lead to different collective responses to these editorial cartoons.*

H$_4$: *Cartoon variables, such as origin, the number of words, whether an icon was present, and whether a foreign policy issue was shown, would be significantly different for our dependent variables. These independent variables captured the key characteristics of an individual cartoon that would be measured to identify their impacts on participant ratings.*

Using Cartoons to Measure Anti-Americanism

Typically, the quantification of anti-Americanism occurs outside the United States, such as in the oft-quoted Pew Research Center's Global Attitudes Project (http://www.pewglobal.org/), and asks about foreigners' attitudes toward the United States. Contrary to that tradition, this research quantifies anti-Americanism as seen by a U.S. audience. To that end, university students viewed a series of cartoons from the United States and Spain from the year that ran from September 11, 2001 to September 10, 2002 and rated their anti-American content.

Political thinking frequently is not guided by a scientific quest for truth, but this does not mean scientific methods cannot be used to understand it. Recent studies have used neurological-scanning methods to document the neural network activities associated with intuitive thinking and political cognition (Kaplan, Freedman, and Iacoboni, 2007; Tingley, 2006; Liberman, Jarcho, and Satpute, 2004; Liberman, Schreiber, and Ochsner, 2003). Over the last two decades, political cognition studies have been undertaken to "better understand how citizens think about the world of politics" and are "concerned with specifying the cognitive processes that produce political judgments and opinion" (McGraw, 2000:805–07). Many of the ideas and methods used to study political cognition parallel those geographers have used to study spatial cognition (Lloyd, 1997). This study borrowed the experimental architecture employed in many cognitive studies and provided unique insight into the views of the participants on what anti-Americanism means for Americans.

The current research also fits within a second and narrower perspective related to a research topic labeled the "theory of mind" (Griffin et al., 2006). "The ability to infer other persons' mental states and emotions has been termed 'theory of mind'. It represents an evolved psychological capacity most highly developed in humans" (Brüne and Brüne-Cohrs, 2006:437). Studies have used the theory of mind to address questions related to nonverbal tasks, social cognition, environmental perspective, predicting behavior, culture/language, and hidden intentions (Brunet et al., 2000; Amodio and Frith, 2006; Aichhorn et al., 2006; Frith and Frith,

2006; Kobayashi, Glover, and Temple, 2006; Haynes et al., 2007). The meaning one extracts from cartoons is also connected to how intentions and motivations are interpreted by the viewer (Brunet et al., 2000). How an individual relates with the characters and symbols in political cartoons should significantly affect how that individual evaluates their contents.

Political decisionmakers are often unaware of precisely how they have arrived at a decision and are unable to explain the intuitive processes they use (Baldassarri and Schadee, 2006; Burdein, Lodge, and Taber, 2006). Experimental studies of political thinking and decision making, however, have suggested that individual difference variables such as sex, race, and party affiliation are critical for explaining the intuitive nature of these cognitive processes (Domke, McCoy, and Torres, 1999; Domke et al., 2003; Bourne, Healy, and Beer, 2003; Johnson, 2006). McGraw (2000:812) argued: "An important unifying theme across these three research questions (i.e., impact of partisan, sex, and racial stereotypes) is the recognition that citizens are flexible information processors, capable of engaging in both 'theory-driven' (stereotypic) and 'data-driven' (attentive to the particulars of a specific case) processing when making political judgments." This study argues that the variation of the message, that is, pro- or anti-American, and equity, that is, fair or unfair, of political cartoons can be explained by individual differences in the cartoons and in the people viewing the cartoons.

The editorial cartoons used for this study were gathered over the course of the 12 months after the 9/11 attacks on New York and Washington. They are from two publications, both premier dailies in their respective polities, *The New York Times* in the United States, and *El País* in Spain, where one of the authors was living after 9/11. This circumstance, along with our linguistic ability to localize Spanish-language cartoons into English (detailed in the methodology section below) made Spain a logical choice. North American government and Pew Research Center data, however, underline the appropriateness of Spain as a site to explore anti-Americanism. Spaniards had a consistently less favorable opinion of the United States than other "Western" Europeans both before and after 9/11, gaps in the data set notwithstanding (Kohut and Stokes, 2006). The choice of newspapers was informed first and foremost by their standing, but also by the availability of digital copy on the World Wide Web (WWW). In all, a body of some 900 cartoons was compiled over the year from September 11, 2001 to September 10, 2002, testimony to the unprecedented and sustained interest in this first major geopolitical crisis of the 21st century.

This study uses these cartoons instrumentally to investigate what constitutes anti-Americanism for Americans. Our approach broadly follows that of Lutz and Collins (1993), who used photographs in *National Geographic* to interrogate the construction of the West's image of the non-Western world. It is important to use U.S. and Spanish cartoons to control for possible differences between anti-Americanism in the United States and abroad. Certainly, the general expectation would be that commentary from outside the United States would be more anti-American. Further, by having students evaluate U.S. editorial cartoons for anti-Americanism, we can address Thornton's (1988) weighty question as to whether one can be a U.S. citizen and anti-American, a notion important for the purpose of policing the line between anti-Americanism and legitimate criticism. This question of separating out legitimate criticism from anti-Americanism is vital. To allow students room to maneuver and so qualify hard-hitting criticism by recognizing

its fairness, we included a second scale that measures the equity of the image being viewed. The equity axis, then, is a way to separate out legitimate criticism from anti-Americanism.

Rose (2001) argues that visual methodologies focus primarily on one of three "sites"—where the image is produced, the image itself, and where the image is seen. This study takes place primarily where the image is seen, the site of audiencing, which, moreover, may ultimately be where images' meanings are made (Rose, 2001). However, the image itself is also an object of study here, and in this sense we are sensitive to the idea that as architects of this study we, too, bring our own ways of looking at the images under review. Although recognizing that we do not have special clairvoyance to see what an image means, we embrace the logic of selecting the cartoons carefully—using what Rose describes as the vaunted "good eye." In this sense, we take the cartoons seriously as social documents that, if used judiciously, can further our understanding of anti-Americanism.

Selection and Preparation of Cartoons
The need to select images was inevitable given the large number of editorial cartoons compiled. McPherson's contention that while anti-Americanism may be difficult to define, we all know it when we see it (2003), probably itself a profoundly modernist conceit (Rose, 2001), certainly guided our work here. Content analysis of the cartoons suggested a series of parallel themes in the United States and Spain, ranging from sympathy immediately after 9/11, to critical perspectives on the war in Afghanistan, to the use of key icons of the United States in the shape of Uncle Sam and Lady Liberty. This content analysis allowed us to arrive at a set of representative cartoons from *The New York Times* and *El País* that addressed both commonalities in the work of these cartoonists, and places where perspectives differed. We compiled a sample of cartoons for analysis, and ultimately selected 40 cartoons for the experiment, 20 from *The New York Times* and 20 from *El País*.

It was important to standardize certain components of the editorial cartoons to minimize the likelihood of our participants responding to visual keys that might predispose them to seeing (or not seeing) anti-American messages in the images. Here, we knew we would sacrifice some nuance driven by a cartoonist's decision to use a specific font for effect, for example. However, ironing out other cues that likely would color the participants' ranking of the cartoons was paramount. Most immediately, of course, was the Spanish language in cartoons from *El País* and so those cartoons were localized into U.S. English. The cartoons were translated such that they kept their original feel, with characters in the cartoons now speaking English within the speech bubble rather than using a translation captioned below the image. A second step entailed the processing of *The New York Times* cartoons to standardize all images. Again, the images were reengineered so that all cartoons in the study used the same font. Our intention here was that our participants should not be able to even subconsciously separate out Spanish from U.S. cartoons. Names and dates in the frames were deleted and the size of the cartoons was standardized, notwithstanding the fact that some Spanish cartoonists use a vertical frame that is not widely found in U.S. editorial cartoons. Thus, any possible visual cues from the Spanish cartoons were now replicated in the U.S. cartoons. To further ensure that our participants would take the experiment with minimal cues, the order of the cartoons in our computer program was compiled blind so that we ourselves would not implicitly order the cartoons along national or other lines.

Procedures

A computer program was generated for this study, with three basic stages designed to collect information and data about editorial cartoons, participants, and their responses. The initial screen of the program assigned a sequential number to participants, gathered their characteristics, and provided general information about what the study entailed. At this point, participants were given the opportunity to discontinue the study with no questions asked. The assigned number ensured anonymity and provided a unique key for linking editorial cartoon responses to participant characteristics for analysis. Participants were asked to provide their age, race, sex, political preference (measured by their vote in the last presidential election), and nationality. Nationality was recorded to ensure that all participants were U.S. citizens and for future comparative iterations of the study. All responses were recorded digitally and stored in a database for later use.

Once participants filled out the required information, they were presented with a practice form and given detailed verbal instructions. The practice form not only familiarized them with the task, but also provided an open forum for question and answers. Upon viewing the first editorial cartoon, each participant was first asked: "How would you rate this cartoon in terms of its message about America?" Participants were required to respond by using a slider bar that clearly displayed *Highly Anti-American* to *Neutral* to *Highly Pro-American* along a continuum. A box located to the left of the editorial cartoon displayed the response numerically. Once participants had decided on a message rating, they were then asked to consider: "How fair is this cartoon?" Participants viewed the same cartoon in the same interface, but now they rated the cartoon's equity by moving the slider bar along a continuum displaying *Highly Unfair* to *Neutral* to *Highly Fair*. Participants moved to the experiment once they were willing, comfortable, and fully comprehended the task by pressing the *Begin* button.

The interface of the experiment was exactly the same as the practice form, but its function differed slightly. Participants were randomly presented with 40 different editorial cartoons. No participant saw these editorial cartoons in the same order, nor had they seen any of them in the prior practice form. Given the same questions as the practice form, participants were required to respond to each of these editorial cartoons by moving the slider bar along the scale continuum. Their score was displayed and digitally recorded in a database once they pressed the *OK* button. This action moved them onto the next editorial cartoon until they had responded to all 40 editorial cartoons. The entire study required an average of 27 minutes to complete.

Along with variables related to the participants (age, race, sex, political affiliation, and nationality), variables about the cartoons were recorded as well. These included the editorial cartoon message rating (*Highly Anti-* to *Highly Pro-American*), the rating on equity (*Highly Unfair* to *Highly Fair*), the origin of the cartoon (*American* or *Spanish*), the number of words in the cartoon, whether the editorial cartoon included an icon, and whether the topic of the cartoon contained a foreign policy issue. The cartoons were deliberately selected to ensure balanced cell numbers (e.g., five U.S. and five Spanish cartoons contained an icon and a foreign policy issue, five U.S. and five Spanish cartoons contained an icon but no foreign policy issue, etc.).

An icon was defined as a symbol of the United States, such as the Statue of Liberty or Uncle Sam. Foreign policy cartoons were defined as cartoons set abroad where U.S. state actions or

activities were pictured. Thus, a cartoon such as Jeff Danziger's depiction of blowback, with the Taliban, armed with U.S.-manufactured weapons, awaiting the imminent U.S. attack, highlights U.S. foreign policy decisions, past and present. Another example is El Roto's bearded Afghan resigned to seeing the United States bomb his ruins to kingdom-come. Some cartoons, of course, contained both icons and foreign policy dimensions and they were coded as such. Tony Auth's Uncle Sam rushing to battle with Turkmenistan, Tajikistan, and Uzbekistan along a road that leads, according to the ramshackle sign behind him, to a place called "good alliances for bad reasons" captures the dilemma of the need for allies in a time of war. It is also an example of a foreign policy cartoon with a U.S. icon.

Participants

This study followed the common practice of using university students for social science research. The diversity of traditional and nontraditional students found in the university student population offers the best sample available, given the restraints of time, costs, and accessibility (25 percent of the university student population used in this study are ethnic minorities and 45 percent of the students have parents with no college degree), limitations regarding our ability to generalize on the basis of any sample population notwithstanding. All subjects were 18 years of age or older. Undergraduate participants were recruited as volunteers from introductory geography classes and were rewarded with extra credit. There were 15 African-American females, 15 white females, 15 white males, and 11 African-American males, for a total of 56 participants. This number of participants provided sufficient degrees of freedom ($N-2$) for testing significant differences between participants. The magnitude of these differences is also compared using Cohen's d statistic, which provides a standardized measurement of the divergence (Cohen, 1988).

ANALYSES AND RESULTS

To examine our hypotheses, the responses of participants, as well as variables related to the cartoons, were analyzed in several ways. The first analysis examined the relationship between message and equity ratings by computing a Pearson's correlation coefficient. A cluster analysis was then performed to visualize homogeneous mean ratings. Another analysis measured entropy to examine the variation among participants' message and equity ratings. A final analysis explored significant differences among participant and cartoon variables by using Cohen's d (Cohen, 1988).

Relationship Between MESSAGE and EQUITY Ratings

The relationship between MESSAGE and EQUITY ratings was assessed both graphically and statistically. A scatter diagram that plotted the 40 cartoons by their mean ratings suggested a highly positive covariation between MESSAGE and EQUITY ratings (Figure 1). The correlation coefficient underlined the statistically significant ($p=0.000$) and strong positive relationship between the variables (0.737). These results suggest that, overall, the participants tended to rate cartoons they viewed as pro-American as fair. Likewise, they rated cartoons viewed as anti-American as unfair.
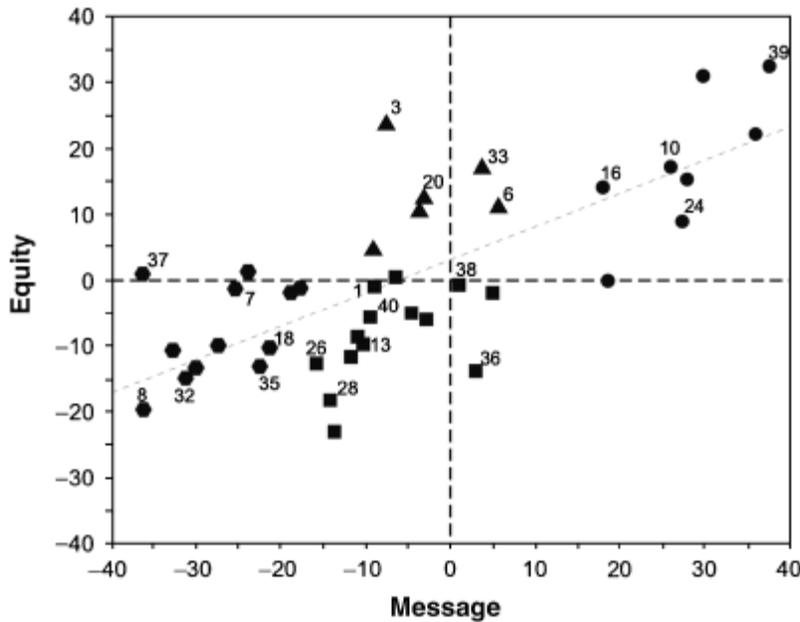
Figure 1: Scatter Diagram Showing the Distribution of the Cartoons by Their Mean MESSAGE Rating on the Horizontal Axis and mean EQUITY Rating on the Vertical Axis; Different Symbols Indicate Cluster Members with Similar Characteristics

The MESSAGE and equity coordinates were used to produce clusters of cartoons with similar ratings. Cartoons in each of four clusters are shown with different shaped symbols in Figure 1. The cluster of circles represents very pro-American and moderate to high fairness, for example, Cartoon 10 in Figure 1. In this cartoon from the immediate aftermath of the attacks in September 2001, Spanish cartoonist Máximo pictures two shattered towers with a wreath at their feet that reads simply: "For the victims." This cluster is majority American (*N*=8, of which 75 percent are from *The New York Times*) and it is composed of cartoons dominated by icons defiant and readying themselves for war, such as Auth's Uncle Sam rolling up his sleeves to do battle (Figure 1, Cartoon 26), Bill Deore's Uncle Sam pictured looking through a telescopic sight as he takes aim at America's enemies (Figure 1, Cartoon 24), or El Roto's broker exhorting investors to "Buy flags. They're going up" (Figure 1, Cartoon 16). In a cartoon such as this one, with its apparent criticism of the intersection of patriotism and good business sense, the power of the icon may overwhelm criticism. However, it may also be the case that far from likely critical intent on the part of El Roto, participants instead warm to the rallying around the stock market as the nation finds its footing after 9/11.

The cluster of triangles represents cartoons with a neutral MESSAGE and moderately high EQUITY. For example, cartoonist Forges pictures a young war protester admonished by an elder that his sign is misspelled (Figure 1, Cartoon 20). The protestor is chided that war has long since been spelled with the letter $. In this cluster (*N*=6), the sole U.S. cartoon is Auth's parody of the Bush Administration's demand that Americans make sacrifices in wartime (Figure 1, Cartoon 33). Auth pictures a recruiting poster announcing: "Uncle Sam wants you … to buy!" It is interesting that Uncle Sam as represented here is not understood by the participants to be pro-American, in contrast to Uncle Sam at war in the cluster of circles. Further, Forges's depiction of Uncle Sam foregrounding the New York City skyline, clearly angry but with his beard trailing

into the smoke rising from ground zero (Figure 1, Cartoon 6), elicits the same response from the participants.

The cluster of squares (*N*=14, 8 of which are from *The New York Times*) represents cartoons with a relatively neutral MESSAGE that are moderately to very unfair, for example, Cartoon 13 (in Figure 1). Long (2007) has argued elsewhere that a cartoon in this cluster, which shows a map of Europe renamed EUROUSA with toponyms such as *Blairshington* where once stood London and *Berlusbush* qua Rome, may be the most anti-American cartoon from the aftermath of 9/11 because it represents the deep-seated fear of the United States as the site of Europe's future, as discussed above. Interestingly, our participants do not read the image this way, but instead rate it as only moderately anti-American and moderately unfair.

Ground zero in this scatter diagram is part of this group. In that cartoon (Figure 1, Cartoon 38), Danziger nails the essence of the U.S. dilemma where vengeance for 9/11 is concerned. He suggests that the United States retaliate by attacking two of the tallest buildings in war-ravaged Afghanistan, where those buildings may be all of three stories tall. Here, too, are several cartoons by America's purportedly most anti-American cartoonist, Rall (Figure 1, Cartoons 26, 28, 36, and 40). Again, the experiment suggests that such images, even one as hard-hitting as Cartoon 36 in Figure 1, where in four panels Rall depicts various Muslims being subjected to U.S. abuse, to finish with a gung-ho American, armed and angry, declaring "This is what happens when you mess with freedom-loving people," while unfair are not anti-American.

However, there was great consensus among our participants that another of Rall's cartoons (Figure 1, Cartoon 37), where he pictured Afghans magnanimously agreeing that the death of their wives and children at U.S. hands was "no biggie," was one of the two most anti-American cartoons in the study (Figure 2). Interestingly, this cartoon, along with six others (more than 17 percent of the images in the study), was close to neutral on the equity axis, which suggests that students may see legitimate criticism in some anti-American attitudes.

The cluster of hexagons (*N*=12, with 7 cartoons from *El País*) represents cartoons that are very anti-American and moderately to very unfair. What is remarkable about this cluster is the role that U.S. icons continue to play in student understandings of anti-Americanism. Further, the gendered content of participant responses here is noteworthy and corresponds with other research on the cartooning of 9/11 (Filak and Abel, 2004). Students view cartoons such as Forges's and McCoy's Lady Liberty cowering from the attacks on Manhattan Island (Figure 1, Cartoons 7 and 35) as very anti-American. Clearly, for both editorial cartoonists and students, the resolute, male Uncle Sam elicits very different responses from that of his frail, female compatriot, Lady Liberty. The Statue of Liberty also appears in a *New York Times* cartoon by Ben Sargent satirizing America's love-hate relationship with France, which participants read as anti-American and unfair (Figure 1, Cartoon 32). Here, two Justice Department officials radio back to then Attorney General Ashcroft to explain that they have tracked down "a French immigrant with a flaming torch, not twenty miles from three major airports.""Good work, boys. Take her down!" is Ashcroft's response. The most anti-American and most unfair cartoon in the study also turns out to be one that contains an icon, Cartoon 8 in Figure 1, El Roto's 9/11 flag (Figure 3). Moreover, the ruined Twin Towers can be seen in the defaced stars and stripes here.

Our results suggest that the Twin Towers themselves, as part of the Manhattan skyline, already part of what Smith (1999) would describe as an ethnoscape, apparently morph quickly into fully-fledged icons in the aftermath of the attacks. They become what Refaie (2003) would describe as a visual metaphor for the United States, later confirmed by the projected height for the signature building designed to replace them, the 1,776 feet-tall Freedom Tower. This is evident in the diagonal line across Figure 1 where Máximo's homage to the Twin Towers and El Roto's shattered towers (Figure 3) elicit diametrically opposed readings of meaning and equity.

Variation Between MESSAGE and EQUITY Ratings

Shannon's (1948) entropy measure (*H*) was computed to represent an index of variation for each cartoon's MESSAGE or EQUITY rating using the following equation,

$$H = -\sum_{i=1}^{n} p_i \log_2 p_i \,.$$

The range of the rating scale was divided into five equal categories and the frequency of the ratings for each cartoon and category was computed. Maximum entropy would occur if the proportion in each category were the same, and minimum entropy if one category had all the observations and all other categories were zero. Maximum entropy—H—for a cartoon was used to measure the amount of information available to estimate the expected rating for the cartoon. In a scatter diagram, the indices were plotted along the vertical axis and the mean ratings for MESSAGE (Figure 4) or EQUITY (Figure 5) along the horizontal axis. A best-fitting quadratic function was computed for each plot.
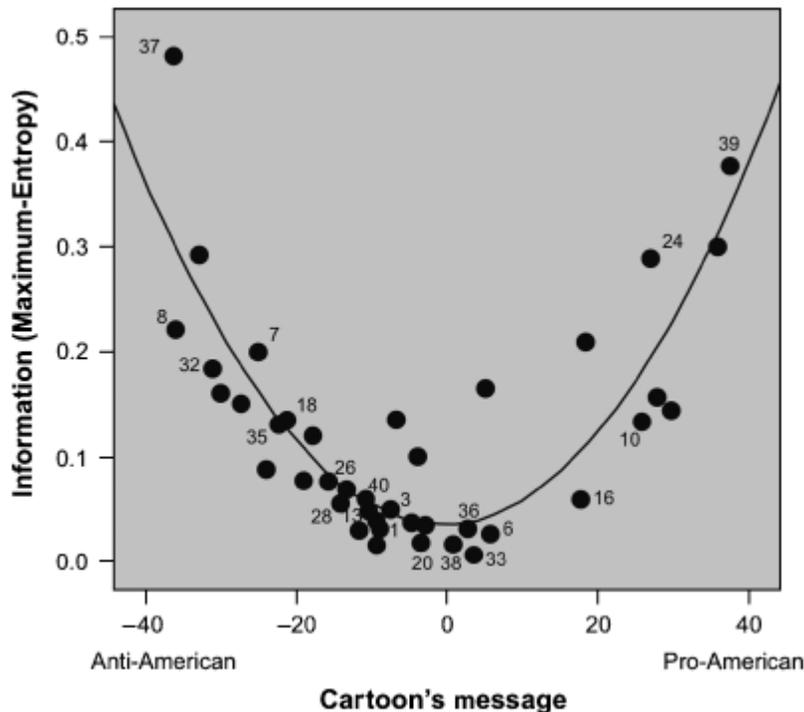
Figure 4. Nonlinear Relationship Between MESSAGE of the Cartoons (Pro- or Anti-American) and Amount of Information in the Scale (Maximum Entropy – Entropy); Higher Positive or

Negative Responses to Cartoons Were Associated with Higher Information Levels While More
Neutral Responses (Nearer 0) Were Associated with Lower Information Levels
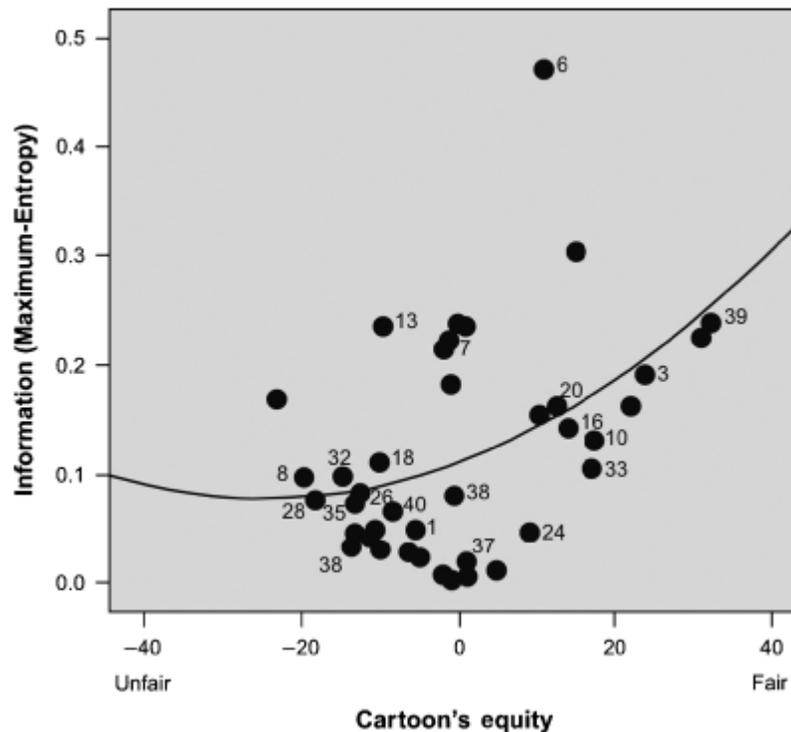
Figure 5. Nonlinear Relationship Between EQUITY of the Cartoons (Fair or Unfair) and Amount
of Information in the Scale (Maximum Entropy – Entropy); Positive Responses to Cartoons
Tended to be Associated with Higher Information Levels While More Neutral Responses (Nearer
0) and Lower Responses Were Associated with Lower Information Levels

The plot for the MESSAGE ratings indicates a classic U-shaped functional relationship (Figure 4).
The information index measured on the vertical axis tended to increase toward both extremes of
the horizontal message axis. This increase in information indicated that participants tended to
provide consistent ratings for these extreme cartoons. Examples here include Rall's "no biggie"
(Figure 4, Cartoon 37) and Tom Toles's "smart bombs" in the shape of food, blankets, and
medicines parachuted into Afghanistan (Figure 4, Cartoon 39). These cartoons are rated as the
most anti- and pro-American, respectively. The information index decreases as the MESSAGE
ratings approach the center (0) point of the horizontal axis. The small amount of information
associated with these cartoons occurs because participants were giving them a wide range of
values, suggesting that readings of these images diverge.

The entropy values and ratings for the EQUITY data tell a different story (Figure 5). There is a
tendency for entropy to increase as one moves toward the extreme end on the fair side of the
axis. However, the same is not true as one moves toward the extreme end on the unfair side of
the axis. The participants would seem to have some agreement on which cartoons were fair, for
example, Toles's "smart bombs" (Figure 1, Cartoon 39), but no agreement on which cartoons
were unfair. Unfair cartoons, like Rall's "No Biggie," thus get lost amid the noise.

Differences Between Participant and Cartoon Categories

Analyses were conducted to determine the significance and relative size of differences in category means for MESSAGE and EQUITY as they relate to the participants and the cartoons. The full range of data was used to assess the direction of the ratings toward anti-American (−) and unfair (−) or pro-American (+) and fair (+). Category means are shown in Table 1. Cohen's *d* statistics were computed to assess size effects for category means, and are shown for MESSAGE and EQUITY variables in Table 2. Cohen's *d* measures the effect size and the strength of the relationship between two variables (Cohen, 1988). In scientific experiments, it is often useful to know not only whether an experiment has a statistically significant effect, but also the *size* of any observed effects. Effect sizes are helpful in summarizing the findings from a specific area of research.

Table 1: Means for Variables/Categories

Variable: Category	Anti- or Pro-American Signed	Unfair or Fair Signed
Race*:* African American	−7.2	−13.1
Race: White	−6.3	11.6
Sex: Female	−16.2	−6.3
Sex: Male	4.7	8.4
Party: Democrat	−14.2	4.4
Party: Republican	−15.1	−6.7
American icon: No	−10.7	−1.4
American icon: Yes	−2.6	2.18
Origin of cartoon: Spain	−11.7	−1.2
Origin of cartoon: U.S.	−1.7	2.0
Foreign policy: No	−9.1	−0.1
Foreign policy: Yes	−4.3	0.9
Words in the text: Low	4.3	6.5
Words in the text: High	−16.6	−5.2

Table 2: Effect Size Based on Mean Differences for Categories of Participants (Race, Sex, Politics) and Cartoons (Origin, Policy, Icon, Text) for Signed Variables; Effect Sizes (Cohen's *d)* are Computed for the Cartoon's Message and Equity Variables[a]

Variables	Cartoon Message (Anti- to Pro-American) Cohen's *d*	Cartoon Equity (Unfair to Fair) Cohen's *d*
Race of participant	0.115	−0.503
(African American or white)	(0.100)[b]	(0.000)[c]
Sex of participant	−0.286	−0.326
(female or male)	(0.003)	(0.001)
Political preference of participant	−0.174	0.040
(Democrat or Republican)	(0.131)	(0.740)
Origin of cartoon	−0.280	−0.028
(Spain or U.S.)	(0.012)	(0.756)
U.S. foreign policy participant of cartoon	−0.091	−0.067
(no or yes)	(0.338)	(0.479)
U.S. icon in the cartoon	−0.238	−0.166
(no or yes)	(0.012)	(0.079)
Words in the text	0.515	0.337
(low or high)	(0.000)	(0.000)

[a]Cohen (1988) defined values of *d*=0.2 as a small effect, *d*=0.5 as a medium effect, and *d*=0.8 as a large effect.
[b]Probability of a greater *t* statistic testing for a significant difference in cartoon message means for the categories of a specific variable in the row.
[c]Probability of a greater *t* statistic testing for a significant difference in cartoon equity means for the categories of a specific variable in the row.

The results for the MESSAGE variable indicated significant differences in the means for sex but not race or political preference (Tables 1 and 2). Female (−16.2) participants' average ratings of

cartoons were anti-American across the range of data, whereas males' (4.7) average ratings of cartoons were pro-American. This may be as a response to Azim et al.'s (2005) findings that men and women process humor in cartoons differently. Cartoon results for the message variable indicated significant differences in the means for origin, icon, and the number of words in the text (a surrogate measure of image complexity, since 90 percent of the images were single-panel cartoons) categories, but not for U.S. foreign policy cartoon categories (Tables 1 and 2). Spanish cartoons (−11.7) were rated significantly more anti-American than U.S. cartoons (−1.7). Cartoons with icons (−10.7) were rated significantly more anti-American than cartoons without icons (−2.6). Cartoons with a high number of words in the text (−16.6) were rated negatively, whereas those with a low number of words in the text (4.3) were rated positively. Since three of four cartoon variables were significant, while only one of three participant variables was significant, it appears that the message ratings, that is, anti- or pro-American, were more dependent on the nature of the cartoons than the nature of the participants.

The results for the EQUITY variable indicated significant differences in the means for race and sex but not for political preference (Tables 1 and 2). African-American (−13.1) participants' average ratings of cartoons were unfair, while white participants' (11.6) average ratings were fair. This finding is interesting, particularly as it seems to contradict literature that specifically addresses white and black student responses to 9/11 (Harlow and Dundes, 2004). It suggests that Harlow and Dundes's (2004) methodology, using focus groups to refine survey work, might be useful in further iterations of our work to explore the racial dimension of thinking visually about anti-Americanism. Females' average ratings of cartoons were unfair (−6.3), whereas males' average ratings of cartoons were fair (8.4). Cartoon results for equity indicated that only the text variable had a significant difference (Tables 1 and 2). Cartoons with a *low* number of words had an average positive rating (6.5), while cartoons with a *high* number of words had an average negative rating (−5.2). This may reflect cartoonists' ability to communicate high volumes of information with minimal or no text by using icons, for example, Auth's Uncle Sam rolling up his sleeves (Figure 1, Cartoon 26). The participant variables appeared to be slightly more important than the cartoon variables for explaining differences in fairness ratings.

CONCLUSIONS
Measuring anti-Americanism in editorial cartoons highlights its complexity. The results of this study suggest that meaning is derived not just from the editorial cartoons themselves, but also from the characteristics of those viewing the image. This underlines the intricacy of visual culture wherein anti-Americanism is found at the intersection between object and audience. Our research also shows that there are key image cues that trigger a cartoon being read as anti-American. Further, the anti-Americanism our participants saw in these editorial cartoons is multifaceted, and so they recognize equity in some anti-American images.

This study used a series of image and participant variables to measure the anti-Americanism of editorial cartoons from the year after 9/11. For our participant variables, sex and race were significant in participant ratings of the cartoons (sex both for the message and the equity dimensions; race for equity alone), while political preference was not significant on either scale. These findings generally support the literature regarding gender differences in processing humor in cartoons, but seem to contradict scholarship on the African-American response to 9/11.

Participant characteristics are important in measuring anti-Americanism, but image variables appear to be more significant. The study used data for four image variables: origin, icon, U.S. foreign policy, and the number of words in the text. Of these, only the number of words in the text proved significant across both dimensions of anti-Americanism (message and equity), but two of the four, origin and icon, were significant on the message scale. This suggests hostility on the part of participants who are asked to work harder to "get" an editorial cartoon by reading high numbers of words in the image. This emphasizes the visual nature of editorial cartoons.

The study also suggests that where a cartoon was drawn and what it depicts are significant for understanding anti-Americanism. Spanish cartoons are rated more anti-American but, significantly, how a cartoonist treats U.S. icons is crucial. This research suggests that while the categories of domestic and foreign are indeed significant in understanding the popular politics of anti-Americanism, they cannot be understood in a simplistic way. In fact, our participants see U.S. anti-Americanism in some editorial cartoons. Seeing anti-Americanism hinges more on the artist's treatment of national icons than on where the cartoon originates.

In effect, by plotting our results, we can revisit the significance of cartoon variables. The study pinpoints the centrality of U.S. icons and their treatment as key to seeing anti-Americanism, irrespective of the number of words in the text or the origin of the cartoon. Perceived animosity to the United States, as embodied in cartoonists' treatment of icons such as the U.S. flag or the Statue of Liberty, drives understandings of anti-Americanism. For Americans, anti-Americanism is about irrational hatred of the United States. The other key dimensions to anti-Americanism highlighted in the literature, foreign policy concerns or trepidation at the United States as a force for modernization, do not resonate. Thus, editorial cartoons where Lady Liberty is portrayed as overwhelmed by the events of 9/11 or the U.S. flag is defaced are highly anti-American and highly unfair for our participants. The most efficient way to express anti-American sentiment is to belittle a U.S. icon. On the other hand, celebrating such icons, by portraying Uncle Sam as warrior, for example, is both pro-American and fair.

We sought to investigate the complexity of anti-Americanism by having the participants rate both message and equity. Contrasting these twin dimensions affords us insight into a willingness on the part of our participants to recognize legitimate criticism in moderately anti-American images. This points to readiness on the part of U.S. citizens to think critically about their country.

Although often glossed over as comic relief on editorial pages, editorial cartoons are valuable social documents and manifestations of a pervasive popular geopolitics. In this article, we interrogated them to hone our understanding of anti-Americanism for a U.S. audience. The centrality of anti-Americanism in the early 21st century necessitates continued investigation and measurement of what it is and how it works.

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