Image and Emotion in Voter Decisions

The Affect Agenda

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Visual Cues in the Formation of Affect

In 2004, Howard Dean's presidential campaign suffered a blow when he was shown on TV in what he himself called a "red-faced rant," that was quickly dubbed the "Dean Scream" or the "I Have a Scream" speech. In 1988, Michael Dukakis was ridiculed after being shown wearing an oversized helmet and riding in a tank. In 1972, frontrunner Edmund Muskie's campaign abruptly ended after he was shown with what looked like tears on his face at a televised news conference, responding to an unflattering report about his wife. More recently, Mitt Romney gave a speech in a near-empty football stadium and political insiders agreed the visuals of what looked like a poor turnout overwhelmed the message. Perhaps the most famous example of how visual images can affect a candidate was the sweating, five-o'clock shadowed Richard Nixon versus a handsome and polished John F. Kennedy in the nation's first televised debate in 1960. Historians say the course of that election changed overnight and affected all future elections as well. Political folklore has it that those who *saw* the debate said Kennedy won, but those who only *heard* it on radio said Nixon was the victor. The problem for Nixon—88 percent of American households had TV. After that, no politician could afford to ignore the power of the visual.

Did these visual images contribute to the candidates' downfalls? No one can say for sure, but many agree they marked the beginning of the end of these campaigns. Ever since, political strategists carefully orchestrate their candidates' "photo ops," provide advice and even professional training on gestures, facial expressions, and tips for appearing on TV. As Barack Obama said when declining to wear a football helmet in 2013, "You don't put stuff on your head if you're president. That's politics 101."[1]

Photographs have long been extolled for the power that they hold. They have been credited with "altering people's minds and rearranging their lives,"[2] with ending wars, changing public policy and turning the tide of public opinion.[3] The power of photographs and video is taken seriously by politicians and their staff. "Unless you can find a visual that explains your message, you can't make it stick," wrote Michael Deaver, Ronald Reagan's media savvy chief of staff.[4] Even before the age of television, photographs had been anointed with political power when Abraham Lincoln credited Matthew Brady's flattering lighting and retouched photograph with winning him the presidency. Larry Sabato, political analyst at the University of Virginia, told *Time* magazine that one way political parties pick candidates is by asking, who would look better on TV?[5] After the Nixon-Kennedy debate, how a candidate looked, sounded, and connected with audiences mattered enormously, Sabato said.[6] Along with the "sound bite" political strategists had the "image bite" to worry about but also to wield. Even the sheer amount of visuals that voters see, compared to the words, should be enough to convince anyone of their importance—in U.S. presidential elections from 1996 to 2004, image bites made up 25 percent of TV news coverage, but sound bites accounted for only 14 percent.[7] The growth of visual media means that people can be influenced by candidates' appearance and nonverbal cues in many more channels than ever before.

And yet, despite both anecdotal and empirical evidence of the power of the visual, research in political communication is still overwhelmingly devoted to the study of words. As Barnhurst and Quinn[8] note, most political communication research that uses the term "image" refers to people's ideas or conceptions of a candidate, conveyed through written or spoken words, rather than the visual aspects of his or her appearance and presentation, as conveyed in pictures or video. There has been no shortage of sustained calls for more studies of visuals. [9] And few dismiss visuals as unworthy of scholarly study anymore, but yet the lack of research continues. Much of the work in this book represents an effort to heed that call. For this book, we have mainly studied visuals in tandem with verbal information, which mirrors the way that people receive their news from all sources except radio. This chapter reviews evidence of the power of photographs and moving images—along with their deficits—before laying out what our own research has found specific to visual information and its influence on people's perceptions of presidential candidates, that is, its agenda-setting effects at the affective level.

THE POWER OF VISUALS

It has long been suspected that visual information is as important, or maybe more so, than verbal information. "Stories are often complex com-

binations of visual and verbal content—all too often the visual information is so powerful that it overwhelms the verbal," wrote two scholars.[10] Yet another group of scholars admit that a limitation of their work was failing to include visual elements, saying, "Our analysis may not tap enough of the emotional impact of media coverage because we examined only the spoken and written texts . . . The visual impact of (Bob) Dole on television and in newspaper photos may have left a very different impression."[11] Long before these words were written, Graber[12] had already concluded that visual images in TV news were more memorable than verbal elements. She was an early pioneer in the study of visuals, finding that visual news messages are twice as likely to be remembered as verbal messages,[13] investigating how visuals contributed to the way viewers perceived candidate traits, [14] and viewer learning, [15] and how, compared to words alone, audiovisual material helped viewers recall and understand information better and become more emotionally involved in politics. [16]

Visuals have a lot going for them when it comes to their effects on viewers. They attract attention, [17] with audiences looking at 75 percent of the pictures versus only 25 percent of the text. [18] People absorb information from pictures faster than from words, [19] and pictures make things seem more real than when they are described. [20] Moving images such as those on TV especially have a life-like quality and produce a stronger emotional response than still pictures. [21] Theories of information processing predict this, and ample evidence backs it up (See chapter 3 for more on information processing theories).

When visuals are combined with text, people absorb information even more quickly and easily than when either is presented alone, [22] and they remember more too. [23] They also use the pictures to help them interpret information in the text. [24] Furthermore, memory for messages that use both visual and verbal modes tends to be more accurate than for purely verbal messages[25] as long as the information in both modes is the same.[26] When visual and verbal information conflicts, people remember what the visuals show in what is called the picture superiority effect.[27] An example is the *Time* magazine cover of O. J. Simpson after he was suspected of killing his ex-wife. The police mug shot was darkened in an attempt to make it more dramatic, but many viewers were outraged saying it was racist and made him look guilty. What viewers didn't seem to notice was the highly sympathetic headline, "An American Tragedy." Nor did anyone complain about the highly prejudicial headline, "Trail of Blood," on the cover of *Newsweek,* which had an un-retouched and less dramatic photo. No doubt race was a factor as well. This is another example of when images and words conflict, what people notice and remember are the images. Visuals make stories on TV more credible and interesting. [28] People become more emotionally involved when pictures are present [29] and remember more detail from pictures than from words. [30] Finally,

people judge the character of others based on what they see more than on what they hear and read. [31]

VISUAL LANGUAGE IS DIFFERENT

Graber also had pointed out the flaws in visual research that used verbal coding strategies and concluded that visuals didn't matter; visuals are inherently different from words, and can't be studied the same way. [32] Visuals are concrete representations of what they portray and so they communicate by analogy—the relationship between them and their meaning is based on the fact that they look similar.[33] But verbal names for things are arbitrary—a rose by any other name is still a rose, if you will. But a picture or drawing of a rose can only be a rose. Photographs and video take this even a step further with a stronger connection to reality because they are made from the effects of light on the real object, described by the term "indexical."[34] Because a photograph is an indexical image of something real, people tend to believe what they see more than what they read or hear, the old seeing-is-believing phenomenon.[35] Finally, images are different from words in that they cannot make claims the way words do because they lack an "explicit propositional syntax."[36] Words can be used to make statements about cause and effect, generalizations, comparisons and other types of connections. "Our chewing gum gives you whiter teeth!" for example. Visuals *can* make these sorts of statements, of course, but only *implicitly*, not explicitly the way words can. In the gum example, a model holds the gum up next to her freakishly white teeth and a sparkle appears. Most visual syntax is more subtle than this. For example, instead of saying, "This candidate is the best leader," visuals would have to imply good leadership by juxtaposing the candidate with other good leaders, or by showing him signing legislation. Viewers would have to make the connection. This can have pluses and minuses; one drawback is that viewers may not make the connection that was intended—the video of Michael Dukakis in a tank was supposed to convey him as a savvy military leader; instead, it backfired and made him look silly. Another characteristic of visuals is that they can say things that would not be acceptable to say with words. For example, the Daisy Girl commercial never said that if elected Barry Goldwater would start a nuclear war—that would be instantly labeled as preposterous—but that's the message viewers took away from the image of a girl picking petals and counting, juxtaposed with the countdown and imagery of a nuclear missile launch.

The differences between visual and verbal language are obvious, and one of Graber's main points[37] is that research needed to measure the language of visuals differently than it measured the language of words. Studies that concluded audiences didn't learn from visuals weren't meas-

uring learning from images correctly, she said. Researchers who asked viewers to remember factual details or names mentioned in the words were using a verbal learning yardstick; it didn't really get at what visuals contributed independently. Instead, Graber's research found that TV visuals did in fact contain much information, but it was not what researchers expected. Pictures of places and things were mostly stereotypical or redundant with the words or other pictures.[38] When these types of pictures were shown, people only learned from them if they were especially vivid or dramatic,[39] or were unusual or showed something novel.[40] Pictures of the poverty of New Orleans' 9th Ward during Hurricane Katrina were learning moments because they showed a side of the city that had not been seen before, and were not the typical upscale tourist attractions such as Bourbon Street. But these are rare among location and object images in the news; mostly pictures of places and things are repetitive, showing familiar sights and contributing nothing new. These were the least frequent types of visuals used on TV.[41]

One thing that visuals contributed that researchers weren't expecting was their emotional effect on viewers. We delve more deeply into emotion in another chapter (Chapter 8), but briefly, visuals excel at creating drama and engaging viewers' emotions.[42] Words alone can't produce the same emotional punch.[43] Pictures make information more touching than words.[44] Because they give viewers a sense of being there, they make it easier to identify with people and situations and to become emotionally involved.[45] This is important for politics because these emotional responses contribute to assessments of a candidate's character and issue position above and beyond party identification.[46] It's important in other ways because emotions are essential to learning, perception, all kinds of decision-making, and even rational thinking.[47]

The other kind of visual that people learned from that early researchers didn't expect was close-ups of people's faces.[48] This was the main type of visual shown on TV and, contrary to what researchers expected, it was the kind that conveyed the most information.[49] Up until Graber studied these "people pictures," it was just assumed that once you had seen the face of the president a few hundred times, there was nothing new to learn from seeing his face over and over again. Not so. If you've seen one, you *haven't* seen them all. Even when the people were very familiar, such as the president, the images were still memorable and people learned something new.[50] A columnist in the Austin (TX) *American-Statesman* newspaper vividly illustrated when when he wrote about Barack Obama's speech announcing his decision to authorize air strikes in Iraq in 2014. "In eight minutes and 37 seconds, he never once looked directly into the camera and, by extension, at me and at you,"[51] wrote Ken Herman. Instead, he swiveled his head between teleprompters—seventy-one times to the left, and seventy-one times to the right. Herman counted. He talked to a political science professor who said that fits in

with people's assessment of him as not interested in them. Herman ended by telling a story from his own White House pressroom days, where George Bush gave a speech that he read from a text while looking directly into the cameras. "And that means he spoke directly to me and everyone who was watching," Herman ended. The point is that even after six years in the Oval Office, the nonverbal behaviors of the president are still noticed by people who come away having learned something new.

NONVERBAL BEHAVIOR AS VISUALS

It was precisely this fact of nonverbal behavior being at least equal to or more powerful than verbal communication[52] that led us to study the nonverbal behavior of presidential candidates for their visual agenda-setting abilities. Nonverbal communication like facial expressions and gestures account for between 65% and 93% of all communication.[53] And about 40% of the information we get about other people comes from nonverbal behavior such as facial expressions and gestures rather than words.[54] Simply counting and categorizing people by some scheme such as their gender, race, or by what they say or is said about them, misses the important information that visuals convey, that is, facial expressions about people's affective states, which leads viewers to infer character traits about them.[55] This is exactly the type of measurement that has been lacking in visual studies, and represents a better way to measure the effects that come from visuals. By choosing certain images of politicians smiling and waving, for example, and leaving out others, such as the candidates looking tired, journalists impart powerful effects to viewers whether they intend to or not. We decided to study the nonverbal behaviors and expressions of candidates because of the richness of information conveyed by them and because they are by far the most frequent type of visual shown on TV during campaigns.[56] To ignore these would miss a vast amount of what Americans see on their favorite news source.

Of all the nonverbal behaviors, facial expressions carry the most information[57] and convey it most effectively.[58] Few people have a true poker face; they make facial expressions unintentionally[59] that convey much subtle information in a few seconds or even fractions of a second,[60] what is called thin slices.[61] These fleeting facial expressions can powerfully influence people's evaluations of the person making them, and even generate similar emotions to the ones being conveyed.[62] Moreover, people decode facial expressions quite accurately.[63] Specific nonverbal behaviors go hand-in-hand with certain feelings, and information about a person's mood and emotions are read quite accurately by others.[64] It doesn't take any particular training or even experience to draw inferences from close-ups of human faces; even children and untrained, average observers ac-

curately and consistently interpret the meanings conveyed through facial and body positions and movements in their culture.[65]

The impressions that facial expressions leave are more accurate than it would seem,[66] readily revealing the person's mental state.[67] Furthermore, facial expressions are at least as important as the verbal content of a message,[68] leading people to infer attributions about the sender's character traits, such as whether he or she is competent or not. In fact, when it comes to trustworthiness—a key characteristic people use in picking political leaders—the major way it is communicated is nonverbally. [69]

FACIAL EXPRESSIONS IN POLITICS

When political candidates are shown on TV, audiences use their facial expressions and body language to infer personality traits such as competence, integrity, leadership, and empathy, and those inferences are fairly accurate.[70] Facial expressions give viewers a mental shortcut about the candidate's personality and demeanor that directly shapes his or her image in voters' minds.[71] Even a single photograph can give people an impression of the candidate's integrity, competence, and fitness for office. Changing the photograph results in significantly different assessments of the same candidate, even when the candidate's party and issue positions remain the same.[72] The physical appearance of politicians drives many votes,[73] and people's evaluations of a candidate's competence based just on his facial appearance strongly predicts the outcome of elections.[74] Appearance-based inferences about a candidate's character predict the chances of winning with remarkable accuracy in the U.S. and other countries.[75] Thus, a politician's facial expressions can be decisive in his or her success. No one knows if people's judgments of the candidates' character traits based on nonverbal cues are accurate or not

VISUALS IN AGENDA SETTING

To the best of our knowledge, this program of work represents the only longitudinal effort at examining visuals for their second-level agenda setting effects in political communication. The first study of visuals and agenda setting was concerned with the first level of issues, not the second level of attributes as the research in this book is. That study in 1988[76] was the first to determine that the size of a photograph could influence readers' perceptions of the importance of an issue. Issues whose stories had dominant photos, or the largest picture on the page, were perceived as more important than other issues with smaller photos or no photos at all. Stories with smaller or more "balanced" photos were perceived as more important than stories without any photos. It was not until eighteen years later that two more studies of visuals and agenda setting came out, in

2006—one, using the traditional agenda-setting methods of a content analysis and survey by one of the authors, Renita Coleman, and colleague Stephen Banning,[77] and the other, an experiment, by Laura Arpan and her colleagues.[78] The Arpan et al. experiment demonstrated that photographs alone have the ability to affect viewers' assessments of issues in a controlled setting, and the Coleman and Banning article explored the same idea in a real-world scenario—the 2000 presidential election. Since then, we have repeated the results of both studies for this book— the Arpan experiment, using visual images of a political candidate running for office instead of the context of political protest photos, is reported in chapters 5 and 7. The other study showing visuals can have an agenda-setting effect is replicated in this chapter using three other U.S. presidential elections.

We do not mean to suggest that there have been no studies of visuals; in fact, the study of visuals has grown exponentially in the past two decades. Most notably, visuals are studied through the lens of framing analysis rather than agenda setting. This visual framing research contributes valuable information in terms of documenting the prevalent frames in the media, exploring the influences that lead news workers to select these frames, and comparing and contrasting frames across different news outlets, countries, and contexts. Some visual research extends to viewers, asking them in surveys for their opinions or attitudes on various kinds of visuals.[79] Fewer take the next step to document visuals' *effects* on viewers. That is one purpose of this chapter, to replicate the finding from the 2000 election[80] that visuals can have an agenda-setting effect.

Additionally, we are interested in discovering whether the tone of visual and verbal news content is congruent, that is, if the stories and pictures of a candidate are both positive, both negative, or if one mode is positive and the other negative. This matters because of a phenomenon known as the "picture superiority effect," described earlier.

DO VISUALS SET THE PUBLIC'S AFFECTIVE AGENDA?

Our most pressing goal was to discover whether the findings of visuals being able to set the affective agenda in elections would hold up in campaigns subsequent to the 2000 study. In order to have a direct comparison with that study, we calculated our measures as closely as possible to the 2000 study. Our measure of affect in 2000 was an index of respondents' emotions toward the candidates plus their assessments of each candidates' character traits. We combined emotions and traits for the analysis of visuals because of evidence showing that emotions and visuals are processed in the same area of the brain (See chapter 3) and that visuals are especially adept at evoking emotions. We did the same for each election after that, but some variations were necessary. For example, in 2004,

we added two newspapers to the TV sample, so our variable measuring news use summed people's weekly use of both TV and newspapers. In 2008, we used only TV news programs, not newspapers, and added *The Daily Show*, so the news use index summed people's reported use of those two kinds of media. In 2012, we went back to coding only TV content, and the news use measure reflected that. In every election since 2000, we controlled for respondents' party identification, liberal/conservative political views, age, gender, and education level as these individual differences have been shown to affect people's opinions of candidates.

In every presidential election since 2000, we did find that visuals had an agenda-setting effect (see Table 6.1). While not every candidate had a significant effect on both negative and positive dimensions, the ability to replicate an agenda-setting effect of visuals in four different elections makes us confident in saying that visuals can and do set the public's affective agenda. Watching the candidates on TV tells people how to think about them. It's not just written stories and spoken words that have this power; still and moving images do too. Voters form affective impressions of the candidates by seeing their facial expressions and body language in video and pictures. They make assessments of the candidates' character traits such as how honest, competent, and caring they are. And people develop emotional reactions to the candidates, such as anger, fear, pride and hope. Seeing positive or negative visuals of the candidates led viewers to form congruent affective impressions in every election between 2000 and 2012. When we broke our analyses down to compare how positive media visuals are correlated with positive public impressions, and how negative media visuals are correlated with negative public impressions for both candidates, giving us sixteen comparisons, we found agenda-setting effects of visuals in more than 50 percent of the comparisons (nine out of sixteen). John Kerry in 2004 was the only candidate who failed to set the public's affective agenda with either positive or negative nonverbal behaviors.

Not every election had as strong of a visual agenda-setting effect as others. The 2000 election was particularly strong with three out of four comparisons (positive and negative for both candidates) showing an agenda-setting effect. It was the same in 2008 and 2012—there was an agenda-setting effect on three of four comparisons. The weakest effects were in the 2004 election, with a visual agenda-setting effect on only one of four comparisons. There appears to be no clear pattern of to whether the Republican or Democrat, or incumbent or challenger has more visual agenda-setting abilities—we found it was about the same for candidates of both parties, and for challengers and incumbents. One year, Republicans had the edge, but the next year it was Democrats, and the same for incumbents and challengers.

We again wish to clarify what we mean when we talk about a "media agenda" with visuals. Unlike the words (except for quotes or sound bites)

[T06_001.t1] Table 6.1. Partial Correlations between Media Visuals (Weighted by News Use) and Public Affect for the 2000, 2004, 2008, and 2012 Elections (Test of Agenda Setting)

2000	**Gore (D)**	**Bush (R)**
Positive	***r = 0.202, p < 0.001	***r = 0.129, p < 0.001
Negative	r = 0.032, p = 0.17	***r = 0.131, p < 0.001
2004	**Kerry (D)**	**Bush (R)**
Positive	r = 0.043 (564), p = 0.31	r = -0.017 (564), p = 0.695
Negative	r = 0.005 (564), p = 0.912	*r = 0.107 (564), p < 0.05
2008	**Obama (D)**	**McCain (R)**
Positive	***r = 0.211 (290), p < 0.001	r = -0.102 (290), p = 0.081
Negative	**r = -0.162 (290), p < 0.01	r = 0.052 (290), p = 0.378
2012	**Obama (D)**	**Romney (R)**
Positive	***r = 0.104 (5,203), p < 0.001	***r = 0.075 (5,203), p < 0.001
Negative	***r = -0.053 (5,203), p < 0.001	r = 0.003 (5,203), p = 0.805

Note: Partial correlations controlled for party ID, liberal/conservative ideology, age, gender, and education. 2000 and 2012 survey data from American National Election Studies. Data from 2004 collected by Wu and Coleman at Louisiana State University survey center. Data from 2008 collected by Coleman and Wu at University of Texas survey center.

in a story written by journalists, the visuals are not solely the product of broadcasters in the case of TV, or photojournalists in the case of print and Internet media. The candidates themselves are responsible in large part for how they come across. They are the ones who are smiling, frowning, waving, looking at their watches, and making all manner of other nonverbal expressions that convey meaning to viewers. The journalists are responsible for which video bites or photographs they select from the many choices. However, research has found little if any systematic bias by journalists.[81] We also find no evidence for the idea that professionals sworn to objectivity and balance would consciously abandon that imperative to purposely select photos or video clips that show a candidate in a consistently positive or negative light. Nor does the hypothesis of bias hold up in these four elections because the positive and negative effects are about evenly split between Republican and Democrat candidates.

We also wish to reiterate again that, while this chapter has focused on the role of visuals in agenda setting, this effect is a product of written and spoken words and visuals working together (correlations for that are in chapter 7). Radio is the only medium that presents news solely in one channel of communication. Newspaper stories may be presented without photographs, but television is more skewed toward video. Unless view-

ers are watching with the sound turned off, or listening to the news but not watching it, then they are receiving information in both modes, and that information is bound to interact. It is impossible to separate the effects of words and pictures in a real-world study such as this. But it is unrealistic to study words alone for agenda setting effects.

ARE VISUALS AND STORIES CONGRUENT IN TONE?

In addition to knowing if visuals alone can have an agenda-setting effect, it's important to know if the tone of the visuals is the same as the tone of the stories because of something called the picture superiority effect,[82] reviewed earlier. Importantly, when pictures and words leave different impressions, people's reactions shift from the perception left by the words to that left by the pictures.[83] When the words and visuals are not the same, the visuals give viewers a different impression, and that is the one they remember.[84] As time passes, this is even more likely to be the case. There is much evidence showing that words and pictures merge over time to create new meanings. For example, in one study, the text said that people on dating services often do not disclose their *vices* and the picture showed a person with a bottle of gin; people in the study remembered the message as saying people on dating services do not disclose their *alcoholism*, not just their vices.[85] Another study had people read words that said a *bird* was perched atop the tree while showing a picture of an *eagle*; people remembered the sentence as saying it was an *eagle* that was perched in the tree even though an eagle was shown and not stated.[86] Culbertson[87] had people read articles with balanced views and showed pictures with biased views; people recalled the stories as biased in the same direction as the pictures. Gibson and colleagues[88] found the same thing using different issues.

At least two studies have investigated the interaction of photos and people's preexisting schemas about race. One study showed a woman who was a resident of a neighborhood plagued by prostitution; the words identified her as a resident, but people remembered her as a prostitute. The authors surmise that because she was Black, people's schemas about race interacted with the photo.[89] The other study found that people recalled the ethnicity of people in the pictures as being associated with a tick disease even though the stories never mentioned ethnicity.[90] In both of these studies, people's schemas about race interacted with the images and text in the news, resulting in perceptions that were distorted by the information in the pictures.

Theories of how people process visual and verbal information help explain these effects, and we go into more detail on them in chapter 3. The bottom line for news consumers and producers is that visual and verbal information is encoded together, merges and interacts; when there

are differences, the visual information tends to be what viewers remember and what changes their perceptions. Thus, it is important to examine whether visual and verbal information is congruent or not to determine if this is also the case in media coverage of presidential candidates.

MEASURING IMBALANCE

To answer this question of whether the visuals and stories were congruent in tone in the elections we studied, we used the Janis Fadner Coefficient of Imbalance.[91] Initially developed for analyzing wartime propaganda, it measures the relative proportion of favorable to unfavorable articles while controlling for the overall volume of articles. Each article is given equal weight in the measure, and it allows for one variable that measures bias rather than separate variables, one measuring positive, one negative, and one neutral nonverbal expressions. It also eliminates the problem of positive and negative values canceling each other out when summing variables; after all, a positive expression does not "cancel out" the effects of a negative one, resulting in a neutral. The coefficient is a simple statistical measure of the extent of difference in the ratios of favorable, unfavorable, or balanced/neutral material assigned to the traits within the analysis. It is designed so that it will always increase when the frequency of favorable content increases, decrease when the frequency of unfavorable content increases, and equal zero if the units of content are balanced/neutral or if the numbers of units of favorable content are equal to the number of unfavorable units. The formula can produce a number between +1.0 and -1.0 representing the strength of candidates' nonverbal expressions and the tone of the stories. We used the Janis Fadner coefficient to perform *t* tests to see if there were significant differences in the tone of the stories and visuals for each candidate, in each election (see Table 6.2).

We found incongruent visual-verbal agendas in two out of three elections and for both candidates. Only in the 2004 election was the tone of the pictures and words similar for both John Kerry and George W. Bush (See Table 6.2). This comparison was not between candidates, but within each candidate's coverage; so, the tone of the words and pictures about Kerry was about the same, and the tone of the words and pictures were similar for Bush in 2004. In 2008 and 2012, each candidate's visuals were significantly more positive than the stories about him. Both Obama and McCain in 2008, and Obama and Romney in 2012 had significantly more positive pictures than words.

This reinforces the idea that the candidates are more in control of the visual images of themselves than they are of the words that journalists write and say about them. Journalists are trained to be objective and neutral; our Janis Fadner coefficients for the words written by journalists

[T06_002.t1] Table 6.2. T Tests of Janis Fadner Coefficients of Imbalance for Congruence in Tone of Visuals and Stories for 2004, 2008, 2012

Election Year	Candidate	Visual Tone Janis Fadner mean (sd)	Story Tone Janis Fadner mean (sd)	Significance *t* (*df*), *p* value
2004	Kerry	.112 (.293) n = 755	.073 (.719) n = 310	*t* =.929 (351.93), *p* = .354
	Bush	.139 (.296) n = 755	.087 (.689) n = 310	*t* = 1.30 (356.78), *p* = .194
2008	Obama	.325 (.364) n = 453	.085 (.449) n = 449	***t* = -8.78 (900), *p* < .001
	McCain	.308 (.342) n = 468	.005 (.385) n = 449	***t* = -12.360 (892.38), *p* < .001
2012	Obama	-.019 (.106) n = 816	-.001 (.010) n = 254	***t* = -4.87 (858.02), *p* < .001
	Romney	-.013 (.092) n = 836	-.004 (.011) n = 237	**t = -2.78 (911.16), P < .01

Note: Levene's test for equality of variances showed significant differences for all comparisons except Obama in 2008, so the t test results for when equal variances are not assumed was used everywhere else. Data collected by Coleman and Wu.

hovered around the neutral mark of zero in 2004 and 2008—ranging between .005 and .087. The coefficients for the words were only slightly in the negative territory in 2012, -0.001 and -0.004. Recall the Janis Fadner statistic ranges from -1.0 representing completely negative, to 0 indicating perfectly neutral, and +1.0 representing completely positive. This finding of the written and spoken component of news coverage being in the neutral range illustrates that journalists are mostly succeeding at balanced stories. This is especially difficult given the overwhelmingly negative rhetoric of campaigns, where candidates and their spokespersons attack their opponents and news people need to use quotes and sound bites in their coverage. It shows that they are succeeding in achieving balance if not true neutrality.

The visuals, however, are another story, with positive coverage reaching as high as 0.325 for one candidate in 2008. Given that we were measuring the nonverbal expressions of the candidates, this shows that they were indeed putting their best faces forward. Journalists can only choose from among the visuals that the candidates provide them, and in 2004 and 2008, all the candidates were using positive body language. Only in 2012 did both candidates exhibit more negative nonverbal expressions, with Janis Fadner coefficients of -0.013 and -0.019. Still, these visuals were significantly more positive than the written and spoken words.

While it is good that journalists were mostly presenting a balanced tone in stories, the fact that there was incongruence between the tone of words and pictures in two of three elections leads to concerns about visuals swaying voters. If the picture superiority effect was at work, then the positive tone of the pictures should have more impact on voters than the balanced stories. Viewers who watch more TV coverage of these campaigns should be coming away with more positive impressions of the candidates than are those who only read about them. We did not find that to be the case, however. In 2008, Obama's visuals were significantly more positive than the stories about him, and there was a significant positive agenda-setting effect, but there was also a significant negative agenda-setting effect for him. It was the same him in 2012, and for McCain in 2008. Only George Romney had significantly more positive visuals than words in 2012, and only a significantly positive agenda-setting effect. We do not find strong relationships between the picture superiority effect and affective agenda setting when it comes to the agenda of candidates.

CONCLUSION

With this program of work we can say definitively that visuals have the ability to set the public's affective agendas. We replicated the findings of the 2000 election study in all three elections after it. No longer should research ignore the visual elements of media coverage. We acknowledge that expressions and gestures of candidates, which is what we measured as "visuals" in these studies, are not the only type of visual that affects viewers, but they are among the important ones.

We also find that words and pictures are not always congruent in their tone. Previous research has shown that when words and pictures conflict, people remember the pictures. We found that tone was largely *not* congruent between words and pictures in past campaign coverage, but that did not translate into a congruent agenda-setting effect.

There is perhaps little that journalists can do about the incongruence between words and pictures, given that candidates are in control of their own nonverbal behaviors, media events are staged by campaign managers, and visual journalists are limited in what they can capture. Furthermore, the world is becoming more visual and the media along with it; *not* using dramatic and compelling visuals is just not an option. But it does not appear to be related to affective agenda setting about candidates. That is, when visuals were significantly more positive than the stories for a particular candidate, there did not seem to be a corresponding positive agenda setting-effect. More research would be needed to explain why the picture superiority effect failed to produce more corresponding feelings

about the candidates, but we view it as good news that voters are not being swayed unduly.

Having unpacked the differences between the two major modes of communication—visuals and text or words—we now drill down even further into the specifics of these messages, that is, their positive and negative tone.

NOTES

1. Emily Heil, "Obama wears many hats — but only metaphorically," (2013). Para. 5.
2. Vicki Goldberg, *The power of photography: How photographs changed our lives* (NY: Abbeville Publishing Group, 1991), 7.
3. Ibid.
4. M. K. Deaver and M. Herskowitz, *Behind he scenes: In which the author talks about Ronald and Nancy Reagan and himself,* vol. 1st edition (New York: Morrow, 1987), 141.
5. Kayla Webley, "How the Nixon-Kennedy debate changed the world," (2010).
6. Ibid.
7. Erik Bucy and M.E. Grabe, "Taking television seriously: A sound and image bit analysis of presidential campaign coverage, 1992-2004," *Journal of Communication* 57 (2007); Erik Bucy and M.E. Grabe, *Image bite politics: News and the visual framing of elections* (New York: Oxford University Press, 2009).
8. Kevin Barnhurst and Kelly Quinn, "Political visions: Political studies in visual communication," in *The SAGE handbook of political communication*, ed. Holli A. Semetko and Margaret Scammell (Los Angeles: Sage, 2012).
9. Ibid.; Doris Graber, "Say it with pictures," *Annals of the American Academy of Political and Social Science* 546(1996); Michael Griffin, "Camera as witness, image as sign: The study of visual communication in communication research," *Communication Yearbook* 24 (2001).
10. Stanley J. Baran and Dennis K. Davis, *Mass communication theory: Foundations, ferment and future* (Belmont, CA: Wadsworth Publishing, 1995), 271.
11. David Domke et al., "News media, candidates and issues, and public opinion in the 1996 Presidential Campaign," *Journalism and Mass Communication Quarterly* 74 (1997), 733.
12. Doris Graber, "Seeing in remembering: How visuals contribute to learning from television news," *Journal of Communication* 40, no. 3 (1990).
13. Doris Graber, *Processing the news: How people tame the information tide, 2nd ed.* (White Plains, N.Y.: Longman., 1988).
14. Doris Graber, "Kind pictures and harsh words: How television presents the candidates," in *Election in America*, ed. Kay Schlozman (Winchester, MA: Allen & Unwin, 1987).
15. Doris Graber, "Seeing in remembering: How visuals contribute to learning from television news."
16. Doris Graber, "Say it with pictures."
17. Maxwell E. McCombs, J. B. Mauro, and J. Son, "Predicting newspaper readership from content characteristics: A replication," *Newspaper Research Journal* 10, no. 1 (1988).
18. Mario R. Garcia and Pegie Stark, *Eyes on the news.* (St. Petersburg, FL: The Poynter Institute., 1991).
19. Allen Paivio, *Imagery and verbal processes*, ed. Erlbaum (Hillsdale, N.J.: 1979).
20. Judee K. Burgoon, "Nonverbal communication research in the 1970s: An overview," in *Communication yearbook IV*, ed. Dan Nimmo (New Brunswick, N.J.: Transaction Books, 1980).

21. Benjamin H. Detenber, Robert E. Simons, and Gary G. Bennett, "Roll 'em! The effects of picture motion on emotional responses," *Journal of Broadcasting & Electronic Media* 4, no. 1 (1998).
22. Graber, "Say it with pictures."
23. Doris Graber, "Seeing in remembering"; Hyun-Joo Lee Huh, "The effect of newspaper picture size," *Visual Communication Quarterly* 1, no. 2 (1994); Jinok Son, Stephen D. Reese, and William R. David, "Effects of visual-verbal redundance and recaps on television news learning," *Journal of Broadcasting & Electronic Media* 31(1987).
24. Mark Doremus, "The use of visuals to clarify ambiguous verbal information in a television news story," *Journal of Visual Literacy* 12 (1992).
25. C. Pryluck, *Sources of meaning in motion pictures and television* (New York: Arno, 1976).
26. Mickie Edwardson, Kurt Kent, and Maeve McConnell, "Television news information gain: Videotex versus a talking head," *Journals of Broadcasting & Electronic Media* 29, no. 4 (1985); Paul R. Warshaw, "Application of selective attention theory to television advertising displays," *Journal of Applied Pscyhology* 63 (1978).
27. Rhonda Gibson and Dolf Zillmann, "Reading between the photographs: The influence of incidental pictorial information on issue perception," *Journalism & Mass Communication Quarterly* 77, no. 2 (2000); Allen Paivio and K. Csapo, "Picture superiority in free recall: Imagery or dual coding?" *Cognitive Psychology* 5 (1973); V.P. Richmond, J.C. McCroskey, and S.K. Payne, *Nonverbal behavior in interpersonal interactions*, 2nd ed. (Englewood Cliffs: Prentice-Hall, 1991).
28. Burgoon, "Nonverbal communication research in the 1970s: An overview."
29. Graber, "Say it with pictures."
30. Doris Graber, "What you see is what you get," in *American Political Science Association* (Washington, D.C.1991).
31. D. Schneider, A. Hastorf, and Phoebe. Ellsworth, *Person perception* (Reading, MA: Addison-Wesley, 1979); Denis G. Sullivan and Roger D. Masters, "Happy warriors: Leaders' facial displays, viewers' emotions, and political support," *American Journal of Political Science* 32, no. 2 (1988).
32. Graber, "Seeing in remembering."
33. Paul Messaris and Linus Abraham, "The role of images in framing news stories," in *Framing public life: Perspectives on media and our understanding of the social world*, ed. Stephen D. Reese, Oscar H. Gandy, and August E. Grant (Mahwah, NJ: Lawrence Erlbaum Associates, 2001).
34. Ibid.
35. Graber, "Kind pictures and harsh words."
36. Messaris and Abraham, "The role of images in framing news stories," 218.
37. Graber, "Seeing in remembering."
38. Ibid.
39. Gibson and Zillmann, "Reading between the photographs: The influence of incidental pictorial information on issue perception."; Dolf Zillmann, Silvia Knobloch, and Hong-Sik Yu, "Effects of photographs on the selective reading of news reports," *Media Psychology* 3, no. 4 (2001).
40. Graber, "Seeing in remembering."
41. Ibid.
42. Ibid.; Frederike Heuer and Daniel Reisberg, "Vivid memories of emotional events: The accuracy of remembered minutiae," *Memory & Cognition* 18 (1990).
43. John P. Robinson and Mark Levy, *The main source: Learning from television news* (Beverly Hills, CA: Sage, 1986); Sharon Lynn Sperry, "Television news as narrative," in *Understanding television*, ed. Richard P. Adler (New York: Praeger, 1981).
44. J. Meyrowitz, *No sense of place: The impact of electronic media on social behavior* (NY: Oxford University Press, 1985); Michael Pfau et al., "The effects of print news photographs of the casualties of war," *Journalism & Mass Communication Quarterly* 83, no. 1 (2006).
45. Burgoon, "Nonverbal communication research in the 1970s: An overview."

46. James P. Dillard and Anneloes Meijnders, "Persuasion and the structure of affect," in *The persuasion handbook: Developments in theory and practice*, ed. James P. Dillard and Michael Pfau (Beverly Hills, CA: Sage, 2002).
47. Ibid.
48. Graber, "Seeing in remembering."
49. Ibid.
50. Ibid. p. 138.
51. Herman, Ken. "Mr. Prez, Are You Talking to Me?" Austin *American-Statesman*, August 24, 2014, 1B.
52. M. Argyle, F. Alkema, and R. Gilmour, "The communication of friendly and hostile attitudes by verbal and nonverbal signals," *European Journal of Social Psychology* 1, no. 3 (1971).
53. A. Mehrabian, *Nonverbal communication* (Chicago: Aldine/Atherton, 1972); R.L. Birdwhistell, *Kinesics and context* (Philadelphia: University of Philadelphia Press, 1970).
54. W. Lamb and E. Watson, *Body code: The meaning in movement* (London: Routledge & Kegan Paul, 1979).
55. J. K. Burgoon, T. Birk, and M. Pfau, "Nonverbal behaviors, persuasion, and credibility," *Human Communication Research* 17, no. 1 (1990).
56. Graber, "Seeing in remembering: How visuals contribute to learning from television news."
57. A. Mehrabian, "Inference of attitudes from the posture, orientation, and distance of a communicator," *Journal of Consulting and Clinical Psychology* 32, no. 3 (1968).
58. Mark Knapp and Judith A. Hall, *Nonverbal communication in human interaction, 5th ed.* (Belmont, CA: Wadsworth, 2002).
59. Basil G. Englis, "The role of affect in political advertising: Voter emotional responses to the nonverbal behavior of politicians," in *Attention, attitude and affect in response to advertising.*, ed. Eddie M. Clark; Timothy C. Brock & David W. Stewart (Hillsdale, N.J.: Lawrence Erlbaum Associates, 1994).
60. Robert Rosenthal et al., *Sensitivity to non-verbal communication: The PONS test.* (Baltimore, MD: Johns Hopkins University Press., 1979).
61. Elisha Babad, "Preferential treatment in television interviewing: Evidence from nonverbal behavior," *Political Communication* 16 (1999).
62. Englis, "The role of affect in political advertising: Voter emotional responses to the nonverbal behavior of politicians."; Gregory J. McHugo et al., "Emotional reactions to a political leader's expressive displays," *Journal of Personality and Social Psychology* 49, no. 6 (1985).
63. K.L. Burns and E.G. Beier, "Significance of vocal and visual channels in the decoding of emotional meaning," *Journal of Communication* 23, no. 1 (1973); P. Ekman, E.R. Sorenson, and W.V. Friesen, "Pan-cultural elements in facial displays of emotion," *Science* 164, no. 4 (1969); C.E. Izard, *Human emotions.* (New York: Plenum Press. 1977).
64. Paul Ekman, Wallace V. Friesen, and Phoebe. Ellsworth, *Emotion in the human face.* (New York: Pergamon, 1972).
65. Paul Ekman and Harriet Oster, "Facial expressions of emotion," *Annual Review of Psychology* 30 (1979); Cynthia Hoffner and Joanne Cantor, "Perceiving and responding to mass media characters," in *Responding to the screen: Reception and reaction processes*, ed. Jennings Bryant and Dolf Zillmann (Hillsdale, NJ: Lawrence Erlbaum, 1991); Lamb and Watson, *Body code: The meaning in movement*; Sullivan and Masters, "Happy warriors: Leaders' facial displays, viewers' emotions, and political support.."
66. Burns and Beier, "Significance of vocal and visual channels in the decoding of emotional meaning"; Englis, "The role of affect in political advertising: Voter emotional responses to the nonverbal behavior of politicians."
67. P. Ekman, ed. *Emotion in the human face (2nd ed.)* (New York: Cambridge University Press, 1983).
68. Argyle, Alkema, and Gilmour, "The communication of friendly and hostile attitudes by verbal and nonverbal signals."; Graber, "Seeing in remembering: How visu-

als contribute to learning from television news."; Mehrabian, "Inference of attitudes from the posture, orientation, and distance of a communicator."

69. R. T. Boone and R. Buck, "Emotional expressivity and trustworthiness: The role of nonverbal behavior in the evolution of cooperation," *Journal of Nonverbal Behavior* 27, no. 3 (2003).

70. Larry M. Bartels, "Messages received: The political impact of media exposure," *American Political Science Review* 87(1993); Schneider, Hastorf, and Ellsworth, *Person perception*; Sullivan and Masters, "Happy warriors: Leaders' facial displays, viewers' emotions, and political support."

71. Dan Schill, "The visual image and the political image: A review of visual communication research in the field of political communication," *Review of Communication* 12, no. 2 (2012).

72. Robert P. Abelson et al., "Affective and semantic components in political person perception," *Journal of Personality and Social Psychology* 42, no. 4 (1982); Shawn W Rosenberg et al., "The image and the vote: The effect of candidate presentation on voter preference," *American Journal of Political Science* 30, no. 1 (1986); Shawn W. Rosenberg and Patrick. McCafferty, "The image and the vote: Manipulating voters' preferences," *Public Opinion Quarterly* 51, no. 1 (1987).

73. S. A. Banducci et al., "Ballot photographs as cues in low information elections," *Political Psychology* 29(2008); D. J. Banjamin and J. M. Shapiro, "Thin-slice forecasts of gubernatorial elections," *The Review of Economics and Statistics* 91 (2009); R. Johns and M. Shephard, "Facing the voters: The potential impact of ballot paper photographs in British Elections," *Political Studies* 34 (2011); A. C. Little et al., "Facial appearance affects voting decisions," *Evolution and Human Behavior* 28(2007); C. Y. Olivola and A. Todorov, "Elected in 100 milliseconds: Appearance-based trait inferences and voting," *Journal of Nonverbal Behavior* 34(2010); P. Poutvaara, H. Jordahl, and N. Berggren, "Faces of politicians: Babyfacedness predicts inferred competence but not electoral success," *Journal of Experimental and Social Psychology* 45, no. 1132-1135 (2009).

74. A. Todorov et al., "Inferences of competence from faces predict election outcomes," *Science* 308 (2005).

75. Christopher Y. Olivola and Alexander Todorov, "Elected in 100 milliseconds: Appearance-based trait inferences and voting." *Journal of Nonverbal Behavior*, 34:83-110 (2010).

76. Wayne Wanta, "The effects of dominant photographs: An agenda-setting experiment," *Journalism Quarterly* 65, no. 1 (1988).

77. Renita Coleman and Steve Banning, "Network TV news' affective framing of the presidential candidates: Evidence for a second-level agenda-setting effect through visual framing," *Jounalism & Mass Communication Quarterly* 83, no. 2 (2006).

78. Laura M. Arpan et al., "News coverage of social protests and the effects of photographs and prior attitudes," *Mass Communication & Society* 9, no. 1 (2006).

79. Shahira Fahmy and Thomas J. Johnson, "Show the truth and let audiences decide: A web-based survey showing support among viewers of Al-Jazeera for use of graphic imagery," *Journal of Broadcasting & Electronic Media* 51, no. 2 (2007).

80. Coleman and Banning, "Network TV news' affective framing of the presidential candidates: Evidence for a second-level agenda-setting effect through visual framing."

81. D. D'Alessio and M. Allen, "Media bias in Presidential elections: A meta-analysis," *Journal of Communication* 50 (2000).

82. Paivio and Csapo, "Picture superiority in free recall: Imagery or dual coding?"

83. Gibson and Zillmann, "Reading between the photographs: The influence of incidental pictorial information on issue perception."

84. Tom Grimes and Robert Drechsel, "Word-picture juxtaposition, schemata, and defamation in television news," *Journalism & Mass Communication Quarterly* 73, no. 1 (1996).

85. Tom Grimes, "Encoding TV news messages into memory," *Journalism Quarterly* 67 (1990).

86. Kathy Pezdek, "Cross-modality semantic integration of sentence and picture memory," *Journal of Experimental Psychology* 3, no. 515-524 (1977).

87. Hugh Culbertson, "Visual detail, sensationalism and perceived writer stand," *Journalism Quarterly* 51 (1974).

88. Rhonda Gibson, Dolf Zillmann, and Stephanie Sargent, "Effects of photographs in news-magazine reports on issue perception," *Media Psychology* 1, no. 3 (1999).

89. Grimes and Drechsel, "Word-picture juxtaposition, schemata, and defamation in television news."

90. Gibson and Zillmann, "Reading between the photographs: The influence of incidental pictorial information on issue perception."

91. I. L. Janis and R. Fadner, "Coefficients of imbalance," in *Language of politics*, ed. H. Laswell, N. Leites, and Associates (South Norwalk, CT: George W. Stewart, 1949).

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