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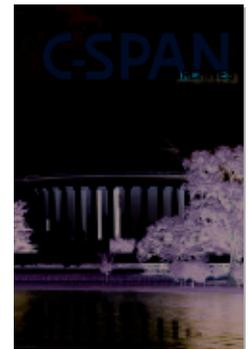Browning, Robert

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CHAPTER **6**

MICROANALYSIS OF THE EMOTIONAL APPROPRIATENESS OF FACIAL DISPLAYS DURING PRESIDENTIAL DEBATES: C-SPAN COVERAGE OF THE FIRST AND THIRD 2012 DEBATES

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"Debates," it has been aptly put, "are for losers," with the potential losses from mistakes greatly outweighing possible gains from candidate performance during general-election debates (Schrott & Lanoue, 2008). More precisely, by the time the presidential candidates from both political parties are ready to confront each other face-to-face in the days leading up to the general election, they have been thoroughly vetted by the media, public, and their respective political parties on their policy positions, political and social values, personality traits, and quirks. What remains for the voters, especially those who are undecided or wavering in their support, is a final verification of candidate authenticity. While presidential debates have been referred to as side-by-side press conferences (Lanoue & Schrott, 1991; Racine Group, 2002), they offer enough spontaneity and surprise to potentially alter electoral outcomes through inappropriate or unexpected behavior by the candidates. As a result,

they are among the most-viewed political events, with the first 2012 presidential debate between Barack Obama and Mitt Romney drawing 67.2 million viewers, more than the Summer Olympics opening ceremony earlier that year.

Not doing your political homework can certainly lead to embarrassment and ultimately withdrawal from even the most well-planned and -funded of presidential campaigns. Texas Governor and presidential candidate Rick Perry learned this hard lesson during the 9 November 2011 primary debate when he promised to cut three federal agencies, but was only able to name two of his targets. His resultant "oops" moment diminished his credibility as a front-running candidate and was perceived as leading to his exiting from 2012 presidential Republican Party primary, as well as his early exit from the 2016 race. Even minor verbal gaffes can be amplified by the mass media in the postdebate spin (Norton & Goethals, 2004), as experienced by President Gerald Ford in his 1976 debate with Jimmy Carter when he stated that the Soviet Union did not dominate Eastern Europe (Brownell, 2014). While this assertion did not play an immediate role in how Ford's performance was evaluated, the postdebate media spin raised questions as to his leadership ability (Exline, 1985).

Despite the influence of misstatements such as these on electoral prospects, a major means by which candidates apparently lose their edge is through inappropriate behavior. While the focus of much debate research has been on the verbal, textual elements (e.g., Benoit & Harthcock, 1999; Racine Group, 2002), what may matter more is the nonverbal delivery and response by the participants. In other words, what a candidate says is important; how it is delivered and, in turn, reacted to is perhaps even more important. This is especially the case when norms and expectations are deviated from. Whether this is through general "impoliteness" (Dailey, Hinck, & Hinck, 2005) or through specifically identified nonverbal behavior (Gong & Bucy, 2015; Gong & Bucy, 2016; Seiter & Harry Weger, 2005; Seiter, Weger Jr, Jensen, & Kinzer, 2010), inappropriate behavior has had a substantial and negative effect upon a candidate's electoral chances (Schrott & Lanoue, 2008). In other words, while talk by the candidates may be seen as cheap, it is nonverbal behavior—especially that at odds with the verbal utterances—that more honestly signals the capability, intent, and reliability of the candidates (Mehu & Scherer, 2012).

The first televised presidential debate between John F. Kennedy and Richard M. Nixon in 1960 is the benchmark of how appearing like a leader, or not, can have a major influence on electoral success (Brownell, 2014; Bucy

& Ball, n.d.). Here Nixon's sickly and sweaty appearance led to him apparently being upstaged by the more youthful-looking and tanned Kennedy, leading viewers to the conclusion that the latter had won—even though listeners came to the opposite conclusion (Druckman, 2003). In other words, by violating the *emotional appropriateness heuristic* (Burgoon & Hale, 1988), Nixon in the crucial latter stages of the campaign likely raised questions in the minds of supporters and potential supporters as to his suitability for office. Although research has not developed clear causal linkages, inappropriate *display behavior* during debates has been implicated in precipitous drops in public opinion support for candidates such as Ronald Reagan, Michael Dukakis, George H. W. Bush, Al Gore, and George W. Bush (Schrott & Lanoue, 2008). More promising in the teasing out of the influence of inappropriate display behavior is the multimethod research by Gong and Bucy concerning Barack Obama's perceived weak debate performance against Mitt Romney (Gong & Bucy, 2015; 2016), which we cover and expand upon in this chapter.

This leads us to the question as to just what can be considered emotionally appropriate for a leader, or individuals aspiring to leadership positions. This chapter will explore emotional appropriateness, and conversely inappropriateness, by first discussing research by Erik Bucy and colleagues pertaining to both televised news stories and, more recently, presidential debates. From there, we consider connections between nonverbal signals and emotions in order to systematically approach display behavior. Here, we utilize the state of the art in emotion research, the Componential Processing Model (CPM) of emotion appraisal, to characterize facial displays as coded using the Facial Action Coding System (FACS) to take a closer look at the 2012 presidential debates between incumbent President Barack Obama and challenger Mitt Romney. In the first debate the former was thought to have performed poorly by behaving passively in a "lackluster performance" (MacAskill, 2012a), whereas in the third and final debate, Romney was judged the loser by virtue of his having "appeared unsure at times" (MacAskill, 2012b).

Using as a baseline those video clips Bucy and Gong have identified as examples of either appropriate or inappropriate candidate display behavior, through their analysis of focus groups, response dial testing, and eye-tracking methodologies, we consider discrete utterances from within the clips (Gong & Bucy, 2015; 2016). We coded video clips of the listening candidate's nonverbal behavior on a frame-by-frame basis using FACS, allowing us to more precisely

identify the emotion(s) signaled by the listening candidates during their (in)appropriate displays. We next consider whether viewers accurately identify CPM-predicted emotions as displayed by the listening candidates as well as the influence of the opponent's verbal utterances on the viewers' evaluations. We do so by carrying out an experiment that randomly assigns participants to view the video clips in either an audiovisual or visual-only condition. It is here that we attempt to disentangle the nonverbal influence on emotion identification from the verbal information provided by discrete utterances. We conclude by discussing the implications our findings have for understanding just what is appropriate display behavior during presidential debates.

THE EMOTIONAL APPROPRIATENESS HEURISTIC

Extensive research by Bucy and colleagues considering the effect of presidential display behavior during television news stories found that there was an emotional appropriateness heuristic used by viewers (Bucy, 2003; Bucy & Newhagen, 1999; Bucy, 2000; Bucy & Bradley, 2004). Here, when display behavior by the president was considered appropriate in terms of both its valence and its intensity, viewers engaged in automatic and cognitively effortless processing of information. On the other hand, when this behavior did not match the news story, thus violating nonverbal expectancies, viewers engaged in higher levels of cognition to interpret and understand this behavior.

This leads to the question of what, exactly, determines appropriateness. Burgoon and Hale (1988) posit nonverbal expectancies based upon communicator characteristics, the context, and the relationship between the receiver and the communicator. In this case, violations lead to more cognitively involved processing as the "discrepancy between the emotional cues displayed and the assumed emotional experience associated with the event is taken as a possible indicator that the content of symbolic signals should not be trusted" (Mehu & Scherer, 2012, p.402).

In their application of this model to mass-media news coverage, Bucy and Newhagen (1999) suggest that appropriateness in televised news stories relies both upon conformity with social and cultural norms and with being meaningfully related to the message that preceded the display behavior. When considering news stories involving President Bill Clinton's leadership across a

range of domestic and international news stories (Bucy & Newhagen, 1999), as well as President George W. Bush's response to the 11 September 2001 terrorist attacks (Bucy, 2003), participants expected and deemed low-intensity presidential reactions, in which strong emotions were either absent or subdued, as most appropriate. On the other hand, when President Clinton was shown experiencing high-intensity reactions displaying strong emotions such as anger or happiness, respondents used more cognitive capacity to consider this violation of nonverbal expectancies (Bucy & Newhagen, 1999), findings in turn supported by psychophysiological analyses (Bucy & Bradley, 2004). These results are presumably due to the preference for leaders to be in control of themselves when facing challenging circumstances.

However, it should be noted that these studies relied upon news stories that focused on anxiety-inducing events requiring leadership behavior that rallies support (Schubert, Stewart, & Curran, 2002). The behavior studied does not consider the activity of leaders and putative leaders in competitive contexts such as debates. We next turn to this special, albeit compellingly important, context.

EMOTIONAL APPROPRIATENESS DURING PRESIDENTIAL DEBATES

Since the 1960 debate between Richard Nixon and John F. Kennedy, televised coverage of presidential debates has played a powerful role in the perception and choice of America's preeminent leader. Presidential debates not only help citizens understand the domestic and foreign policy positions of the contenders, it allows for a side-by-side comparison of candidate performance. Perhaps more important, the candidates' verbal and nonverbal behavior provides viewers insights into candidate traits and potential performance (Patterson, Churchill, Burger, & Powell, 1992).

According to Gong and Bucy (2016, p. 4), during debates "the appropriateness of nonverbal expressions indexes the congruency between the candidate's nonverbal expressions and immediate rhetorical context, where situationally consistent responses are classified as appropriate and situationally inconsistent responses as inappropriate. In competitive settings, appropriate nonverbal behavior thus entails an assertive response to challenge or verbal attack." Again, context plays a major role in whether display behavior is appropriate

or not; however, there is greater fluidity and different expectations during debates. For instance, angry display behavior is expected in response to attacks by the opponent or by the moderator. An example of what may be perceived as a violation of expected behavior occurred when Michael Dukakis did not respond with anger to moderator Bernard Shaw's opening question in the 1988 presidential debate with George H. W. Bush. When asked whether Dukakis would support the death penalty if his wife were raped, Dukakis dispassionately discussed his policy position instead of showing the expected anger. As a result, it was popularly perceived that Dukakis was lacking in the emotions necessary for leadership (Grabe & Bucy, 2009).

On the other hand, some display behavior may be considered inappropriate for a leader regardless of context. In this case, leaders are expected to not display fear or sadness except in exceptional cases. For example, participants in an experiment were shown video of President Bill Clinton during his grand jury testimony regarding his sexual relations with Monica Lewinsky, and attributed more power and status when he displayed anger than when he displayed sadness in his face and body language (Tiedens, 2001), suggesting sadness—a submissive emotion—is generally not expected from leaders.

Thus, a major factor in assessing a leader is evaluating the appropriateness of the leader's facial display behavior. Specifically, while candidates often rely upon prepared, vetted, and memorized scripts when answering questions and making statements during debates, when a candidate listens to a comment, question, or even an attack from either the moderator or the opponent, the unexpectedness of such utterances can reveal pertinent emotional and behavioral information through the candidate's nonverbal response (Bucy, 2000; Gong & Bucy, 2015; Lancaster, Vrij, Hope, & Waller, 2013). In turn, the nonverbal behavior displayed may be seen by the audience as either appropriate or inappropriate. However, this behavior might be so subtle and/or fleeting as to not be cognitively attended to, or lead to emotional response that is more of a gut feeling. In this latter case, viewers might engage in non-heuristic, effortful information processing only after perceiving inappropriate display behavior. As a result, in the cases where subtle or fleeting micro-expressions occur, being able to code at the lowest level, the *molecular level*, is highly important, especially as research shows that leaders (Porter & ten Brinke, 2008; Stewart, Waller, & Schubert, 2009; ten Brinke & Adams, 2015) as well as criminals (Porter & ten Brinke, 2008) display through their facial

displays their anxiety, sadness, even delight at duping someone. In other words, being able to identify the emotional state being signaled thus becomes the most important first step towards understanding the matching or violation of nonverbal expectancies.

CONNECTIONS BETWEEN EMOTIONS AND NONVERBAL CUES

Nonverbal behavior is inherently complex due to there being multiple redundant and unique signals communicating many different forms of information. Furthermore, the sender's intent is influenced by the context within which this information is sent. While strides have been made in recent years, much of the research concerning politicians over the past 30 years has relied on *molar* interpretations of behavior that rely upon more general gestalt definitions of emotional displays to understand support towards these representatives (Dumitrescu, Gidengil, & Stolle, 2015; Masters, Sullivan, Lanzetta, McHugo, & Englis, 1986; McHugo, Lanzetta, Sullivan, Masters, & Englis, 1985; Sullivan & Masters, 1988). With molar approaches, behavior is clustered into a limited number of discrete categories, albeit with the understanding that the stochastic nature of nonverbal interaction limits precision concerning the identification of emotions and behavioral intent that may be inferred (Salter, 2007).

Regardless of the advances made concerning how different nonverbal channels signal different forms of behavioral intent and emotions (App, McIntosh, Reed, & Hertenstein, 2011) and how it informs evaluation of politicians (Shah, Hanna, Bucy, Wells, & Quevedo, 2015), much work remains concerning the untangling of the multiple nonverbal components. Below we focus on what is typically in view during presidential debates—the face, head, and the upper torso—albeit with the understanding that this represents an incomplete picture of a complex system of communication. This is best considered through the theoretical lens of the CPM of emotion appraisal which has been developed to consider nonverbal cues ranging from facial displays, to vocalics, to body language, in order to understand how people interpret this behavior (Scherer, 2013; Scherer & Meuleman, 2013; Scherer, Schorr, & Johnstone, 2001).

THE COMPONENTIAL PROCESSING MODEL (CPM) OF EMOTION APPRAISAL

It has long been suggested that nonverbal behavior provides signals of emotional stress and behavioral intent more so than spoken words (Darwin, Ekman, & Prodger, 2002; Ekman, 2009; Ekman, Friesen, & Ancoli, 1980; Ekman & Friesen, 2003; Segerstråle & Molnár, 1997). While it is generally accepted that individuals can alter their nonverbal behavior by masking or minimizing displays, cognitive control over specific nonverbal behavior is limited (Mehu, Mortillaro, Bänziger, & Scherer, 2011). Specifically, due to there being multiple channels for nonverbal behavior to be communicated, along with a broad range of information being signaled, there is a high likelihood that even the most accomplished and careful politician will inadvertently signal information concerning the politician's own emotional state. Therefore, attempts to determine the emotional state, and concurrently the behavioral intent of individuals, should consider indicators from multiple channels. Furthermore, these indicators need to be reliable and valid by being easily observed and coded so they can be connected with behavioral intent.

To test whether emotions are perceived in the facial displays of presidential candidates during the presidential debates, we first characterize these displays by the listening candidate on a frame-by-frame basis using the FACS in conjunction with the CPM of emotion appraisal. The CPM provides an approach to understanding how emotions are encoded in nonverbal display behavior, and more important, allows for predictions as to what emotions will be perceived.

Emotions are notoriously difficult to define, although recent years have seen a convergence of research suggesting they are componential systems involving (1) situational appraisal; (2) action tendencies; (3) physiological reactions; (4) motor expressions; and (5) subjective feelings. Taken together as a summary of emotion concepts, especially in the latter case of subjective feelings, it can be posited that there are natural families of emotion, and within each of these families more finely grained constructs (Scherer & Grandjean, 2008). With the CPM, semantic representations of emotion (e.g., anger, fear, disgust, happiness) are seen as the result of seven sequential, albeit reciprocal and interactive (Scherer, Mortillaro, & Mehu, 2013), appraisal checks by individuals (consciously or unconsciously) in terms of: relevance regarding novelty (1) concerning the suddenness and (2) the familiarity and predictability of the stimuli, (3) intrinsic

pleasantness, and goal/need relevance; the implications of the stimuli for the individual in terms of who the causal agent is, and what their motivations are in terms of an outcome's probability, as well as how (4) discrepant it is from expectations, and how (5) conducive and urgent the implications are; (6) the person's coping potential regarding their control, power, and adjustments required; and finally, (7) the normative significance of the event based upon the individual's internal and external standards (Mehu & Scherer, 2012; Mortillaro, Mehu, & Scherer, 2011; Scherer et al., 2013). On the basis of these appraisal checks, and resultant physiological changes that occur, their presence may in turn be signaled through facial display behavior that may in turn be coded using FACS.

In this study, we focus on those basic *folk* emotions that are most closely linked with political behavior. We draw from the work of the Dartmouth Group and their followers (Masters et al., 1986; Salter, 2007; Stewart, Salter, & Mehu, 2009; Sullivan & Masters, 1994; Sullivan & Masters, 1988), albeit with elaborations made possible by advances in human ethology through the CPM (Mehu & Scherer, 2012; Scherer et al., 2013; Scherer & Meuleman, 2013). Specifically, we consider the six emotion clusters connected with the political behaviors of dominance (anger and disgust), submission (fear and sadness), and affiliation (happiness and contentment), which are then presented as choices to participants when identifying the behavior of the candidates.

Taken together with the theoretical precision offered by the CPM, greater accuracy in the definition of emotion and the constructs associated with it can be carried out. Specifically, facial displays can now be defined more precisely than previously done by the Dartmouth Group and their adherents (Bucy & Newhagen, 1999; Salter, 2007; Stewart, 2012; Sullivan & Masters, 1988). This does not preclude other definitions or approaches to emotion, it just allows for a more finely honed appreciation for the preconscious and conscious appraisal of those nonverbal display elements that make up the basis for folk psychological understandings of definitions of emotion. Below we look at the potential indicators of these emotions and how they might influence perceptions.

Eyes and Eye Blinks

There is no doubt that the face and eyes are the focal points of human interaction (Darwin et al., 2002; Ekman & Friesen, 2003; Harrigan, Rosenthal, & Scherer, 2005; Kobayashi & Kohshima, 1997; Kobayashi & Kohshima, 2001;

Segerstråle & Molnár, 1997). Nonverbal displays associated with the eyes and eyebrows provide useful, noninvasive information concerning an individual's emotions, mood, and cognitive processing, mainly through eye blinks (Stern, Walrath, & Goldstein, 1984).

Televised presidential debates have long provided copious and salient research material concerning eye-blink rates, due to their importance for the democratic process. Frank's (1977) evaluation of the 1972 Democratic Party primary debate between George McGovern and Hubert Humphrey found that, of multiple verbal and nonverbal indicators considered, blink rates differentiated best between most and least stressful political issues addressed by the candidates. Likewise, Exline (1985) found differences in blink rates during President Gerald Ford's rebuttals of challenger Jimmy Carter's responses in comparison with the moderator's questions during the first 1976 Ford-Carter debate. More recently, analysis of the first 2004 debate between John Kerry and George W. Bush found both candidates had much higher blink rates than the norm (Stewart & Mosely, 2009), whereas Bucy and Ball's exploration of the classic 1960 Nixon-Kennedy debate found the former's eye-blink rate was substantially higher than JFK's (Bucy & Ball, n.d.). In all these studies, increased eye-blink rates were associated with speaking, and concomitantly with increased stress and anxiety. As a result, it is expected that higher eye-blink rates will be considered inappropriate display behavior due to association with enhanced anxiety and fear.

Facial Muscular Movements

While gains in understanding emotion have been made on a variety of fronts, arguably the most robust and interesting insights resulted from the use of the FACS. FACS comprises 46 movements in the face and additional movements involving the head, the eyes, and gross movement behaviors (Ekman & Friesen, 2003), and is a robust research tool. This is due to its comprehensive and finely honed measurement of muscular movements in the face (i.e., action units [AUs]) made possible by frame-by-frame analysis of video. FACS coding provides information not only about the presence of muscular movements, but also their strength and their onset and offset. In turn, FACS reveals the incredible complexity and fluidity of facial display behavior, even in brief video clips, and with it, changing emotional states that provide the basis for our predicting their presence by using the CPM.

Head Movements

Although head movements are coded as separate AUs using FACS, the head movements can best be defined as auxiliary to the muscular movements of the face by either enhancing or diminishing facial displays. However, social context must also be taken into account. Presidential debates in the United States provide such contextual fluidity, with different types of behavior appropriate at different times. For instance, Exline's (1985) study of the first Jimmy Carter–Gerald Ford 1976 presidential debate found that looking directly at the television audience and emphasizing statements through head movements increased perceived competence. This finding was elaborated on by Patterson and colleagues' analysis of the second 1984 debate between Ronald Reagan and Walter Mondale in which "Reagan's gaze changes and head movements seemed to punctuate and emphasize verbal comments. In contrast, Mondale stared straight ahead at the camera," which led study participants to rate Reagan more favorably and see him as more expressive and attractive (Patterson et al., 1992). On the other hand Gong and Bucy's (2016) analysis of the 2012 Romney-Obama debates, on which this current study is based, found Obama's looking down, presumably to study his notes, but also potentially to mask his facial display behavior, led to him being perceived as passive, disengaged, disinterested, dismissive, and disrespectful towards Romney. As a result, we expect that looking downward with the chin lowered may be considered a submissive and fearful gesture, whereas concomitantly staring with a raised chin may be perceived as threatening and angry behavior (Salter, 2007).

CONTENT-ANALYSIS OF C-SPAN VIDEO OF THE FIRST AND THIRD 2012 PRESIDENTIAL DEBATES

The study we cover in this chapter relies upon C-SPAN Video Library video for our evaluation of appropriate and inappropriate emotions. Specifically, we consider facial display behavior during the 2012 first and third presidential debates between Barack Obama and Mitt Romney, downloaded from the C-SPAN Video Library and edited using Adobe Premier Pro video software. The C-SPAN Video Library provides a voluminous and rich source of data that is incredibly easy to search and access if research questions are

adequately delineated. While this research project addresses high-profile debates that may be expected to be easily accessible, previous research carried out by the first author using C-SPAN archival material (e.g., Stewart & Mosely, 2009) suggests that not only have C-SPAN production choices (particularly, the use of split-screen technology since the 2004 presidential debates) provided for greater transparency regarding candidates and their display behavior, the delivery of archival material has kept abreast of, if not surpassed, current trends. Specifically, whereas in the past DVDs were the main means of video delivery, online methods are currently in place with a range of video outputs available.

In this study, the extracted clips were previously identified as examples of appropriate and inappropriate nonverbal behavior (Gong & Bucy, 2015). Due to each of these clips taking from 1 to 2 minutes and involving substantial variation in display behavior, shorter clips were extracted based first upon their communicating a policy position or making an attack on the other candidate in an utterance comprising two-to-three sentences, and second upon containing identifiable and discrete facial display movements that may be effectively coded from onset to offset. The clips are analyzed first through frame-by-frame molecular-level content coding by a FACS-certified coder (the first author). This allows us to evaluate the influence of acclaims, defense, and attacks by the opposing candidate on the emotions displayed by the listening candidate. Specifically, for each candidate we consider one acclaim, in which the candidate discusses positive characteristics about themselves or their existing or future policy positions or goals, and either two or three attacks, in which they criticize their opponent's policy position or character, and two or three defenses by the candidate regarding their policies or personal characteristics (Benoit & Harthcock, 1999).

Behavioral Analysis

This section discusses the coding of the facial display behavior of the candidate listening and nonverbally responding to the opponent, using the FACS (Ekman & Friesen, 2003). Part of FACS coding involves eye blinks (AU 45); however, well before FACS coding, eye blinks were analyzed. Although studies have shown that baseline eye-blink rates during normal activities are relatively low (12–18 per minute) (Stern et al., 1984), highly stressful

competitive activities such as political debates can be expected to elevate eye blinks substantially. Previous research concerning presidential debates suggests that the average ranges from a low of 28.5 eye blinks per minute for John F. Kennedy during his first 1960 debate, to a high of nearly one blink a second for his opponent in that debate, Richard Nixon (59.7) (Bucy & Ball, n.d.), a rate nearly matched by his eventual Vice President Gerald Ford (57.0) when he debated Jimmy Carter in 1976 (Exline, 1985). Despite these extremes, the average eye blinks per minute during the debates studied tends to be in the mid-40s, as evidenced for not only Carter (44.4), but also for George W. Bush (44.2) and John F. Kerry (45.7) in their first 2004 debate (Stewart & Mosely, 2009).

However, average eye-blink rate over an entire debate obscures such factors as whether the candidate is attacking or defending a position (Frank, 1977) as well as whether they are responding to the moderator, rebutting the opponent, or listening (Stewart & Mosely, 2009). In their analysis of the first 2004 debate, and taking advantage of the first use of split-screen camera shots by C-SPAN, Stewart and Mosely (2009) found that Kerry (31.8) and Bush (42.8) displayed greatly different eye-blink rates when listening, likely reflecting felt anxiety. Indeed, the complete split-screen coverage provided by C-SPAN allowed for identification of emotionally charged moments such as when Kerry hit peaks of 62.0 and 63.6 eye blinks per minute. For his part, George W. Bush had eye-blink rates of 67.7 and 84.0 and a peak average of 104.4 during his 2-minute closing statement. Due to our clips considering only brief utterances in a side-by-side camera context, the Bush-Kerry debate study provides a useful comparison for interpreting emotional state.

In addition to the eye blinks, the facial and head movements considered by FACS provide information concerning the presence, strength, and timing of AUs in the face. We characterized this information in terms of emotional and behavioral intent that was communicated using the CPM (Scherer et al., 2013; Scherer & Ellgring, 2007). Tables 6.1 and 6.2 list the CPM-predicted emotions felt and communicated by the candidates through their facial displays in response to the utterances of the opponent. The tables also provide information concerning the nature and content of the utterances the listening candidate was responding to. We briefly summarize our findings below and in Tables 6.1 and 6.2 (interested readers should contact the first author for the methods appendix).

Table 6.1 Obama's Componential Processing Model (CPM) predicted emotional response to Romney utterances. CPM predictions premised upon FACS coded facial displays and eye blink rate with strong predictions in **bold**.

Video Clip (Time)	CPM-FACS Predicted Emotions	CANDIDATE (Type of Utterance): Text
Obama – Clip 1 (17.23)	**Angry** Happy	ROMNEY (defense): I said that we would provide guarantees, and—and that was what was able to allow these companies to go through bankruptcy, to come out of bankruptcy. Under no circumstances would I do anything other than to help this industry get on its feet. And the idea that has been suggested that I would liquidate the industry, of course not. Of course not.
Obama – Clip 2 (12.03)	**Happy** Fearful Sad	ROMNEY (defense): But I'm not going to reduce the share of taxes paid by high-income people. High-income people are doing just fine in this economy. They'll do fine whether you're president or I am. The people who are having the hard time right now are middle-income Americans.
Obama – Clip 3 (17.11)	**Angry** **Disgusted** Happy	ROMNEY (attack): But not due to his policies. In spite of his policies. Mr. President, all of the increase in natural gas and oil has happened on private land, not on government land. On government land, your administration has cut the number of permits and licenses in half.
Obama – Clip 4 (10.27)	**Angry** Fearful	ROMNEY (defense): . . . look, I'm not looking to cut massive taxes and to reduce the—the revenues going to the government. My—my number-one principal is, there will be no tax cut that adds to the deficit.
Obama – Clip 5 (12.18)	**Angry**	ROMNEY (attack): But don't forget, you put $90 billion, like 50 years' worth of breaks, into—into solar and wind, to Solyndra and Fisker and Tesla and Ener1.
Obama – Clip 6 (14.23)	**Angry** Fearful	ROMNEY (acclaim): We don't want another Iraq, we don't want another Afghanistan. That's not the right course for us. The right course for us is to make sure that we go after the—the people who are leaders of these various anti-American groups and these—these jihadists, but also help the Muslim world.

Table 6.2 Mitt Romney listening to Barack Obama utterances. CPM predictions premised upon FACS coded facial displays and eye blink rate with strong predictions in **bold**.

Video Clip (Time)	CPM-FACS Predicted Emotions	CANDIDATE (Type of Utterance): Text
Romney–Clip 1 (9.01)	Happy	OBAMA (defense): Social Security is structurally sound. It's going to have to be tweaked the way it was by Ronald Reagan and Speaker—Democratic Speaker Tip O'Neill. But it is—the basic structure is sound.
Romney–Clip 2 (16.24)	Happy Angry Fearful	OBAMA (acclaim): My grandmother died three days before I was elected president. And she was fiercely independent. She worked her way up, only had a high school education, started as a secretary, ended up being the vice president of a local bank. And she ended up living alone by choice.
Romney–Clip 3 (12.07)	**Disgusted**	OBAMA (defense): Because if it's just us that are imposing sanctions—we've had sanctions in place a long time. It's because we got everybody to agree that Iran is seeing so much pressure.
Romney–Clip 4 (8.21)	**Happy** Contented	OBAMA (attack): Well, first of all, I think Governor Romney's going to have a busy first day, because he's also going to repeal Obamacare, which will not be very popular among Democrats as you're sitting down with them.
Romney–Clip 5 (14.22)	**Angry Disgusted**	OBAMA (attack): Unfortunately, Governor Romney's plan doesn't do it. We've got to do it in a responsible way by cutting out spending we don't need, but also asking the wealthiest to pay a little bit more. That way we can invest in the research and technology that's always kept us at the cutting edge.
Romney–Clip 6 (15.05)	**Angry** Happy	OBAMA (attack): Does anybody out there think that the big problem we had is that there was too much oversight and regulation of Wall Street? Because if you do, then Governor Romney is your candidate.

Barack Obama's Nonverbal Response

All utterances by Mitt Romney, which Barack Obama listened and nonverbally responded to, addressed policy. Specifically, with the acclaims, attacks, and defenses by Romney, whether financial or, in just one case, foreign policy, we see no personal attacks or critiques of the opposition party. However, we do see a high level of variation in how Obama responded nonverbally to these utterances.

   With the great majority of the video clips, Obama signaled mixed emotions. Specifically, in Clips 1–3 he displayed posed smiles involving the lip-corner pull-up and at an angle of the *zygomaticus major* muscle (AU 12) that may be associated with masking his felt emotions. However, it should be noted that the unilateral smile, combined with the tightening of the lip corners (AU 14) in Clip 3, is associated with contempt (Stewart, Bucy, & Mehu, 2015). This lip-corner tightener is likewise seen in Clips 4–6, where it can be viewed as most strongly connected with anger—especially in Clip 5 where it is paired with his lips being tightened (AU 23). However, it should be noted that Obama's looking downward likely led to the misperceptions of his emotional state, as noted by Gong and Bucy (2015, 2016), especially in Clips 3–5 where his face was averted downward for more than half of the clip (see Figure 6.1).

Mitt Romney's Nonverbal Response

The utterances that were nonverbally responded to by Mitt Romney, whether appropriately or inappropriately, nearly mirrors those utterances by Obama. Here Obama makes three attacks, two defenses, and one acclaim. However, while all six of Romney's utterances were focused on policy, two of the six Obama utterances had a personal component.

   The first considered the effect of Social Security on his grandmother's independence, while the second considered the effect of Romney's proposed repeal of Obamacare on his opponent's ability to negotiate with congressional Democrats. In both of these clips, Romney's facial display behavior is quite subtle, with smiles that pulled his lip corners up and slightly at an angle, yet not affecting his eyes. On the other hand, his posed smile in Clip 4 suggests he is at the very least pleased with Obama's suggesting that Romney would be president, although not to the extent of an enjoyment or amusement smile

Figure 6.1   2Obama_2:09-2:27 (Romney attack): "But not due to his policies. (*Obama AU R12 & 14*) In spite of his policies. Mr. President, all of the increase in natural gas and oil has happened on private land, not on government land. On government land, your administration has cut the number of permits and licenses in half."

(which would be seen with the muscles around the eyes—the *orbicularis oculi*—contracting). In Clips 3 and 5, his thrusting his tongue out likely indicates his rejection of Obama's assertions and felt disgust (see Figure 6.2). Finally, Romney's moderately pushing his lower lip up (AU 17) may be seen as indicating anger in both Clips 5 and 6.

Experimental Analysis

Although it is not possible to know what a politician is thinking and feeling during presidential debates, behavioral microanalysis can provide insights into their thoughts and emotions. As we have seen, by analyzing a candidate's nonverbal responses to the opposition's utterances through such techniques as the FACS, we can detect subtle nonverbal signals. While it may be argued that presidential candidates are heavily coached, highly scripted, and well-practiced performers who have proven their aptitude through their ascent to the top of their respective political parties, and as such have a high degree of control over their verbal and nonverbal performance, even subtle indicators of emotion can "leak." This is especially the case when the opponent engages in unpredicted attacks or makes unanticipated statements.

Figure 6.2 8Romney_1:29-1:44 (Obama attack): "Unfortunately, Governor Romney's plan doesn't do it. We've got to do it in a responsible way (*Romney AU 17, 19, 25 & 26*) by cutting out spending we don't need, but also asking the wealthiest to pay a little bit more. That way we can invest in the research and technology that's always kept us at the cutting edge."

Vigilant observers may see such signals as slight facial muscular movements, increased eye-blink rates, or head movements in response to unexpected acclaims, attacks, and defenses by the opposition or moderators. Ultimately it is the viewing audience that is most important for understanding and interpreting candidate response, whether accurate (as predicted by CPM application of FACS coding) or not. As a result, the next section first considers how accurately the CPM predicts viewer identification of emotions when applied through our FACS coding of the listening candidates' facial display behavior. It next considers what influence the opposition candidate's verbal utterances have on the accuracy of viewer interpretation of the listening candidate's felt emotions.

This study was carried out on an iPad by showing staff members at the University of Arkansas, Fayetteville, 12 video clips that alternated between showing Mitt Romney and Barack Obama debate each other. The use of a tablet computer to carry out the experiment not only reproduced the second-screen experience of many Americans, it also served to standardize the delivery of the audiovisual stimuli while at the same time respecting workplace dynamics of this more externally valid sample. Half of the participants were randomly

assigned to view these clips with sound, and the other half without; all were asked to identify the emotion felt by the listening candidate after each clip was finished. We analyzed the data using the chi-square statistic to assess the probability of emotion identification being random and the likelihood ratio statistic to compare the visual-only and audiovisual clips.

Discussion

As can be expected from nonverbal display behavior that is complex, subtle, and often influenced by a multitude of external factors, the findings here are not necessarily straightforward. They do, however, provide insight into the processing of facial signals of emotions that may be considered appropriate or inappropriate for presidential candidates during their debates. Perhaps more important, it suggests future research directions when considering what exactly is inappropriate display behavior, especially as the CPM predicted the plurality of emotions identified by participants in 5 of 12 video clips shown.

A major finding from our study is that attempts by a candidate listening to acclaims, attacks, or defenses to minimize viewer perceptions of their nonverbal behavior by averting gaze might backfire. Specifically, while looking down is a good way to mask facial display behavior such as elevated eye-blink rates (Stewart & Mosely, 2009), as well as potentially inappropriate smiles (Keltner, 1995), this behavior might also be interpreted as submissive behavior. Namely, in both anxiety and sadness there is a lowering of the chin and directing of gaze downward (Salter, 2007, pp. 146–147).

A second major finding is that looking downward likely affects the interpretation of facial movements. Here, Obama's looking downward in Clip 4 (Table 6.1 & Figure 6.1) led to a majority of participants perceiving him as feeling happiness despite there not being muscle movements associated with happiness (Stewart, Bucy, & Mehu, 2015; Stewart & Ford Dowe, 2013). Instead, the angle of the face downward likely led to the lip-corner tightening (AU 14), which is associated with negative emotions such as anger and contempt, being seen as a smile, even a smirk.

Furthermore, there appears to be a bias towards identifying the behavior of Barack Obama, and to a lesser extent Mitt Romney, as indicating some form of positive emotion such as happiness or contentment. Specifically, even when not predicted for by the CPM, one-quarter to one-half of participant

deviations to select either of these two emotion clusters occurred with both candidates. This high level of deviation may be due to two factors. First, there is a bias towards identifying the affiliation clusters of happiness and contentment. This is likely due to the accurate selection of prototypical expressions of the emotion of happiness, often over 90% (Ekman & Friesen, 2003; Scherer & Grandjean, 2008; Stewart, Méhu, & Salter, 2015). Additionally, there might be a propositivity bias with errors tending towards seeing happiness, even when it does not occur, especially with political leaders in more egalitarian systems like the United States (Masters & Sullivan, 1989; Warnecke, Masters, & Kempter, 1992).

A second factor influencing the interpretation of emotions might reflect the facial characteristics of the candidates themselves (Trichas & Schyns, 2012). Specifically, Barack Obama has more of a *neotonous* face, with baby-faced features such as larger eyes and ears—especially when compared with Mitt Romney's more masculine face. This in turn might lead to systematic errors in the interpretation of emotion as recent research suggests that facial characteristics such as strong cheekbones and brows bias individuals towards perceiving dominant emotions such as anger and/or disgust (Gill, Garrod, Jack, & Schyns, 2014).

The treatment randomly assigning participants to receive the verbal utterance in addition to the nonverbal display behavior (the audiovisual condition) or solely receive the nonverbal channel of communication (the visual-only condition) appeared to have a minimal impact upon the identification of emotion felt by the listening candidate. In Barack Obama's case, participants were significantly affected in their identification efforts in only one video clip. Although Mitt Romney's displays were likewise not systematically and significantly affected, with only one equation showing highly significant differences between participants in the two conditions, three other clips approached significant differences. In these cases, the added channel of verbal and audio information led to a pattern of slightly greater accuracy in the identification of CPM-predicted emotions. The relatively low power of this study with its small number of participants limits our conclusions. This, combined with the Gong and Bucy (2015, 2016) finding that participants engaged in variable scanning of both candidates, suggests that multiple components in the interaction between candidates likely plays an important role in the processing of information.

Likewise, although it does not appear that the type of utterance, whether an acclaim, attack, or defense, played a role in the interpretation of the emotional response of the listening candidate, our set of video clips was limited. Specifically, verbal utterances might have a different effect on viewers depending on whether they were policy focused—as was the case with most of the video clips in our study—or focused on the character of the candidate and those the candidate represents. Furthermore, how the utterance is delivered, whether politely or impolitely (Dailey et al., 2005), and/or with or without humor (Stewart, 2012), influences not just the perception of the speaker, but also the listener.

CONCLUSION

The study carried out here advanced the literature by more directly testing whether the perceived display behavior by the listening candidate, whether Barack Obama or Mitt Romney, reflected the emotional intent as predicted by the CPM, and whether interpretation of the emotions signaled through a facial display is affected by verbal information. It also provided further insight into the nature of inappropriate displays by party nominees during presidential debates, as well as likely other political events, by more proximately and precisely exploring the role of nonverbal display behavior. More specifically, by using the work of Gong and Bucy (2015, 2016) as a starting point, we are able to "drill down" to discrete moments in the first and third 2012 presidential debates that were identified as having either Obama or Romney engaging in behavior inappropriate for a leader. By focusing on the display behavior of the candidate listening to utterances by the opposition party's representative, we are able to identify moments that are likely unanticipated, leading to natural, unrehearsed, and revealing responses.

Although the CPM of emotion appraisal may not be considered as effective as initially posited, in light of its relative difficulty in predicting participant choice of emotion clusters, it should be noted that subtle and quick facial displays are often interpreted by different individuals in various ways, especially if they might be considered inappropriate. As stated by Mehu and Scherer, "A discrepancy between the emotional cues displayed and the assumed emotional experience associated with the event is taken as a possible indicator that the content of symbolic signals should not be trusted"

(2012, p. 11). Specifically, the Brunswikian lens model for the study of emotion communication, upon which the CPM builds, suggests multiple social and perceptual factors influence the interpretation of emotion, and concomitantly, behavioral intent.

Studies considering the influence of nonverbal signals will likely increase in importance as our media environment continues its trend of being increasingly dominated by visuals and images that are often fleeting and taken out of context. This media environment in turn can be expected to influence how citizens perceive and interact with their government, especially as research suggests many individuals are more visually than verbally oriented, especially as concerns their search for and recall of political information (Grabe & Bucy, 2009; Prior, 2014). As noted by Brownell (2014), scholars wishing to understand connections between U.S. citizens and their government should use minimally mediated video content such as that provided by the C-SPAN Video Library to "go beyond the red/blue electoral divide and examine the more complicated and nuanced political reality on the ground" (p. 53).

Just as the introduction of split-screen debate coverage of the 2004 debates between George W. Bush and John Kerry likely affected the perceptions of both candidates (Cho, Shah, Nah, & Brossard, 2009; Scheufele, Kim, & Brossard, 2007; Stewart & Mosely, 2009), due to the ability to monitor the listening candidate, new technologies are changing how presidential debates are watched and evaluated. Currently debate watching is often accompanied by second-screen real-time response by viewers who use their smartphones and tablet computers to comment via Twitter, Facebook, and other social media sites (Shah et al., 2015). Further, in an increasingly Internet-connected world, memes and tweets drawing upon such moments where candidates act seemingly inappropriately have the potential to reach and influence a large audience. While these moments, whether considered appropriate or not, may be subtle, in the aggregate they potentially may have substantial effects on the perceptions of candidates, and as a result, the electoral process.

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