

Visual priming and framing of the 2016 GOP and Democratic Party presidential primary debates

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ABSTRACT. In an on-demand media environment, the 2016 presidential primary debates provided a ratings and economic boost to host networks surpassing all prior primary debates and even major sporting events in viewership. In turn, millions of viewers were exposed to and subtly influenced by the ways in which these candidates were visually presented. We analyze how the Republican and Democratic presidential candidates were presented in their initial two debates (Fox News and CNN; CNN and CBS, respectively). Candidates are considered in terms of visual priming through aggregate camera time and average camera fixation time and how contenders were visually framed through the proportion of different camera shot types used (solo, split screen, side by side, multiple candidate, and audience reaction). Findings suggest that while the front-runners from both political parties benefited from preferential visual coverage, Donald Trump stood out in terms of the visual priming and framing that presented him as a serious contender.

Key words: Debates, presidential election, priming, framing, visual communication, image bites, Donald Trump, Hillary Clinton

The 2016 presidential primary debates attracted immense public and media attention. This was largely due to the high public profiles of the front-running candidates for the Republican and Democratic Parties, Donald J. Trump and Hillary Clinton, suggesting that the “invisible primaries” had become much more visible to the general public. The August 6, 2015, Fox News prime-time Republican Party presidential debate was watched live on television by 24 million viewers, with millions more viewing through simulcast video streams and afterward. The CNN prime-time GOP debate was watched by nearly as many people.¹ While not as impressive, the Democratic Party saw increased public interest in their primary debates compared with previous elections. An average of 15.3 million viewers, along with 980,000 live video streams, watched the October 2015 debate on CNN. While only 8.5 million viewers saw the November 2015 debate between the three remaining Democratic Party candidates,

this Saturday night debate was still comparable to the previous Democratic Party high of 10.7 million viewers watching Hillary Clinton and Barack Obama square off in 2008 on broadcast television.

Not only did these debates approach or surpass previous presidential primary election debates in terms of viewership, they also approached being among the most-watched cable television events ever. This was the case whether comparisons are made with their respective networks or with such rating behemoths as the 33.6 million viewers of the 2014 collegiate football National Championship Game.¹ In summary, these debates were highly anticipated and watched events, stimulating extensive general public interest, media commentary, and, with that, ratings and advertising income. Perhaps more pertinent for democratic processes, these early debates not only provided an entry point for voters but also structured the initial and lasting impressions of the viewers — especially low-information voters making decisions without extensive political background or knowledge.²

Indeed, these debates may have played a disproportionately influential role in the electoral fates of the candidates, especially those contending for the

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Republican Party nomination. Whereas in past presidential primary campaigns, the party apparatus through elite endorsements and campaign contributions provided coordination leading to coherent coalitions,^{3,4,5} the 2016 presidential election was unique — if not aberrant — by rendering the Republican Party organizational apparatus relatively impotent. Namely, according to Azari, the media played the role of coalition builder by widely disseminating the impression that Trump was presidential by repeating and amplifying his core message.⁶ With the Republican Party debates, this was apparently a major factor in Trump's ascendance above an overcrowded stage of viable, albeit traditional, contenders; indeed, Trump's reality show persona was tailor-made for this form of media event.^{7,8,9} Here, his long-standing and well-developed public persona allowed him to thrive at the expense of his less media-savvy opponents. At the same time, the eventual Democratic Party nominee Hillary Clinton likely presented the clearest example of a traditional institutional front-runner, albeit with elite and donor support counterbalanced by negative mainstream media bias when compared with contemporaneous coverage of Trump and of Obama during the 2008 pre-primary campaign.⁹

As these debates influenced the electoral fates of both political parties' candidates, this article considers important yet underanalyzed factors affecting perceptions of debate performance: the visual priming and the visual framing of candidates. In the former, we expect the media outlets broadcasting the primary debates will prime viewers to perceive certain contenders as more viable by enabling their emergence as more available and accessible,^{10,11,12,13} albeit visually.

With the latter, visual framing of the candidates can occur subtly, even unbeknownst to viewers,^{14,15} by making some candidate nonverbal cues and signals more salient for the evaluation of leadership capabilities and traits.^{10,11,13} While candidate debate performance through verbal response and nonverbal presentation affects audience evaluation,^{16,17,18,19} the choices made by the debate producers and moderators in response to candidate behavior can play a major role in public perceptions.^{20,21,22} Specifically, how the networks present the candidates affects how the candidates are able to portray themselves both verbally and nonverbally.^{23,24,25,26,27} Although the questions asked and the speaking time given to the candidates can certainly influence how the candidates convey themselves and their policy positions, perhaps a more

primal, subtle, and pervasive means by which the media affects public perceptions of candidates is how they visually depict each candidate.^{11,28,29}

In this article, we analyze the presidential primary debates in terms of the social context provided by the camera shots chosen. We do so by rigorous content analysis of network visual presentation style through frame-by-frame coding (see Appendix 1: Content analysis methods, available online). We first consider visual priming through the camera time spent on each candidate, both in aggregate and on average. We also consider the visual frames used in portraying the candidates and their leadership capacity. We do so by building on the work of Bucy and Newhagen²⁴ and their four categories of camera shots: the micro-level shot that focuses solely on one candidate; the competitive/comparative shot that places candidates side by side, either physically or through a split screen; the group/multiple-candidate shot in which the contextualizing of a candidate as part of a group of three or more candidates diminishes his or her status; and finally, the audience reaction shot, which shows the debate audience either listening or responding in the form of applause, laughter, boos, or some combination of group mass utterances. In this study, we focus on the first three categories because of the comparative lack of time spent on the audience response shots (however, see Appendix 2: Audience reaction shots, available online) in terms of the proportion of time each candidate is in these different camera shots in these debates.

We first assume there will be differences in how the networks (Fox News, CNN, and CBS) present the candidates, both in shot selection and time spent in each camera shot, presumably on the basis of their electoral standing. In turn, these camera shots influence how the candidates are perceived and received by those viewing the debates at home. We further expect there will be differences in how networks produce debates and, as a result, how viewers at home experience them. Although sound-bites have been shown to effectively capture differences in news media coverage of presidential campaigns by literally giving candidates voice,²⁹ as a result of the specific debate rules negotiated and promulgated jointly by the campaigns and networks, we do not expect there to be revealing differences beyond front-runners receiving more speaking time based on moderator control of speaking turns and, possibly, variance based on successful candidate interruptions. We expect there to be visual presentation style differences between the networks based on their viewer clientele,

the field of candidates on stage, and contextual influences. Therefore, after reviewing literature concerning the nascent field of media biopolitics, this article will first consider how networks present the candidates by looking at the four debates. We next will compare the production decisions made by the networks regarding camera shot choice before discussing overall findings and drawing conclusions.

Media biopolitics

The approach we use here draws from research at the intersection of political communication and evolutionary-based theory, such as media biopolitics.³⁰ The theoretical basis of this subfield asserts that news first functions as a means by which survival-relevant information is provided to the public and, second, conveys information about the political landscape and, with it, cues and signals as to the capacity and social standing of leaders, contenders for leadership, and the followers who support them. More specifically, we build on the political ethological research of the Dartmouth Group, which considered the media coverage of political figure nonverbal behavior and how this coverage reprised the face-to-face connections between group leaders and their followers as seen in their evolutionarily adapted environments. Here, the key difference is the use of communication technologies that extend the reach of leaders while maintaining the perception of personal proximity. As pointed out by Roger Masters, “[M]edia coverage thus ‘mediates’ the transmission of gestural cues, not only because it is through the press or TV that citizens have their largest exposure to images of candidates and leaders, but because journalists and editors select the pictures they will present.”³¹ Therefore, debates provide viewers an ersatz unmediated political event of high social relevance by its revealing of contenders’ capacity for leadership through their nonverbal behavior while providing select subtle signals of their social standing and relationship with the in-person studio audience. How network producers present the candidates thus plays a key, if largely unnoticed, role in how the candidates are perceived.

Face-to-face

Media presentation of candidates often places them virtually face-to-face with viewers in a manner that is artificially intimate.^{32,33,34} It has been well established that among social animals, the most valid and reliable

sign of group dominance is the attention an individual gets from other group members.^{35,36,37,38} Just being on camera could give candidates significant advantages with increased preference and trust, especially when social connectedness is perceived as high.³⁹ Indeed, exposure alone can make viewers more likely to vote for a particular candidate.⁴⁰ In other words, if viewers consistently and continually look at someone, the object of their attention must be assumed to be important.

This “in-your-face politics” can lead to either greater connection or antagonism between the viewer and the candidate on screen, depending on preexisting opinions and the proximity of the image.^{34,41,42} Therefore, whether or not a candidate is seen on television, and how often and much the viewer sees a candidate, is an indicator of his or her importance as a potential leader.⁴³ Thus, the production decisions made by network producers and moderators influence who is perceived as the most appropriate leader just as much as the behavior by the candidates during the time allotted them. As a result, we expect that higher-status candidates will receive (*H1*) more total camera time than other candidates and (*H2*) longer fixations in terms of the time the camera spends on them, thus visually priming the audience to perceive them as viable leaders.

Furthermore, we expect that there will be proportionally more time spent on these “one-shots,” in which the camera fixates on the candidates as the sole focus of the visual frame (*H3*). In other words, higher-status candidates — those seen as more appropriate as leaders, whether through their polling numbers, the money they have received in donations, or the endorsements they have received^{3,4,5} — will be shown proportionately more in this type of camera shot, which emphasizes their dominance of viewer attention.

Two-shots

Camera shots can also be used to heighten or diminish the level of conflict discerned by viewers. While a candidate shown from a perspective of just the head and shoulders (Figure 1a) allows for that individual to dominate viewers’ perceptions,^{29,34,43} when placed in juxtaposition with other candidates, the emphasis becomes one of visual comparison.^{21,22,44,45} In other words, according to Cho and colleagues, having contending candidates side by side “presents the debate as a contest between opponents who display their contempt and disagreement for one another with every nonverbal, off-handed gesture, inaudible sigh, and shift in body language.”⁴⁴ Thus, camera shots placing the



Figure 1. (a)–(d) Camera shots of candidates.

candidates side by side, either through physical juxtaposition (Figure 1c) or virtually via split-screen camera shots (Figure 1d), position them in direct competition with each other.⁴⁴ In the case of the former, having both candidates in frame allows for direct comparisons to be made in terms of their physical stature^{46,47} as well as their body language in response to each other. With the viewing of split-screen camera shots, which has been used during presidential general election debates since 2004, astute minute comparisons may instinctively be made by viewers concerning the facial displays of candidates as they respond to moderator questions and to each other.^{17,44,48,49} As a result, we expect that (H4) candidates deemed as competitive, whether for the nomination or because of ideological opposition, will be in proportionally more “two-shots” that show two contenders either side by side or in a split-screen shot.

Group shots

While we expect there to be differences between the networks concerning how often candidates are presented in a group, we expect the multiple-candidate shot to reflect electoral status. Namely, camera shots with

multiple candidates in view (Figure 1b) put any given candidate in the position of being perceived by viewers as solely one contender among many. This visual perspective deemphasizes detail and focuses viewer attention on comparing the social roles of the contenders vis-à-vis each other.²⁴ As a result, (H5) we expect that high-status candidates will spend proportionally less time in group shots compared with other lower-status competitors.

Therefore, despite presidential debates being seen as the least mediated and hence one of the most naturalistic televised events, offering glimpses into the “real presidential candidates” of the political parties, the news networks broadcasting these proceedings still exert subtle yet influential power over how the candidates are perceived by the viewing public at home. In the research presented here, we analyze the first two major debates of the 2016 presidential primary for each political party (see Table 1) based on camera shots of the top Republican and Democratic Party presidential candidates. In addition to aggregate findings, we consider the distribution of coverage between the candidates, providing us insight into the production decisions made,

Table 1. 2016 presidential primary debates.

Date/location	Network and sponsors/moderators	Total camera time	Participants (polling numbers)
Republican Party Debates			
August 6, 2015/Quicken Loans Arena, Cleveland, OH	FOX News & Facebook/Bret Baier, Megyn Kelly, Chris Wallace	1 hr 49 mins (6,552 s)	Bush (12.0%), Carson (5.8%), Christie (3.4%), Cruz (5.4%), Kasich (3.2%), Huckabee (6.6%), Paul (4.8%), Rubio (5.4%), Trump (23.4%), Walker (10.2%)
September 16, 2015/Ronald Reagan Presidential Library, Simi Valley, CA	CNN/ Jake Tapper, Hugh Hewitt, Dana Bash	2 hrs 52 mins (10,311 s)	Bush (9.2%), Carson (14.0%), Christie (2.8%), Cruz (7.4%), Fiorina (4.4%), Kasich (3.6%), Huckabee (4.4%), Paul (3.2%), Rubio (5.4%), Trump (27.8%), Walker (5.6%)
Democratic Party Debates			
October 13, 2015/Wynn Hotel, Las Vegas, NV	CNN & Facebook/Anderson Cooper, Dana Bash, Juan Carlos Lopez, Don Lemon	2 hrs 4 mins (7,468 s)	Chafee (0.3%), Clinton (43.3%), O'Malley (0.4%), Sanders (25.1%), Webb (0.9%)
November 14, 2015/Drake University, Des Moines, IA	CBS News & Twitter/John Dickerson, Cynthia Fodor, Alyx Sacks	1 hr 34 mins (5,669 s)	Clinton (54.7%), O'Malley (2.7%), Sanders (33.0%)

whether consciously or subconsciously, and how these judgments interact with candidate behavior concerning their use of the time allotted.

Content analysis methods

Analysis of the highly touted and heavily covered initial debates provides insight into production decisions that likely have an impact on how the public views the candidates, especially as first impressions are often lasting ones. The debates considered here ranged from just over an hour and a half of camera time for the CBS Democratic Party debate to almost three hours of camera time for the CNN Republican Party debate (see Table 1). This time differential likely reflected the number of candidates, as the CBS debate featured only three candidates, whereas the CNN GOP debate had a crowded stage with 11 candidates. CNN's GOP debate's congested stage was due to the addition of Carly Fiorina after critical acclaim for her Fox News drive-time debate performance; regardless, the latter debate likely set an upper time limit for all debates because of its marathon-like conditions.

The approach taken in this study consisted of multiple steps, from downloading and coding the video to analyzing the resulting data (please see Appendix 1:

Content analysis methods). Internal validity was excellent, with intercoder reliability among the second and third authors well above Cohen's kappa of 0.80. Because camera shots often included multiple candidates, although to varying degrees based on the shot choices preferred by the different networks, the variables assessing total candidate camera time and percentage of time the candidate was in the camera shots sum to greater than 100%. Likewise, the average fixation time (and standard deviations) for the candidates reflects intersecting coverage, as there is often more than one candidate in a camera shot. Thus, the hypotheses addressing visual priming (*H1* and *H2*) are by their nature overlapping and untidy. However, because we analyze the types of shots within candidates based on their total coverage, the proportions for solo, competitive (split screen and side by side), group, and the very rare audience reaction shots do sum to 100%. Our testing of the visual framing hypotheses (*H3*, *H4*, *H5*) thus reflects competitive categories that are mutually exclusive and exhaustive. The distribution of these camera shots via production decisions reflects network style, moderator decisions, candidate position, and, finally, the general electoral context.

Fox News Republican Party debate

The first in the series of debates occurred on August 6, 2015, as the top 10 Republican Party candidates (determined by the average of the top five national polls; see Table 1) met in Cleveland, Ohio. Businessman Donald Trump, former Florida governor Jeb Bush, and Wisconsin governor Scott Walker led the field with double-digit poll numbers, followed by former Arkansas governor Mike Huckabee, retired pediatric neurosurgeon Ben Carson, Texas senator Ted Cruz, Florida senator Marco Rubio, Kentucky senator Rand Paul, New Jersey governor Chris Christie, and Ohio governor John Kasich to make up the top 10 candidates invited to take part in the prime-time two-hour debate. The remaining seven candidates were invited to the earlier drive-time debate. Although a “sold-out” and highly vociferous crowd of 4,500 Republican partisans packed the Quicken Loans Arena to watch the prime-time debate among the top contenders,¹ few actually attended the earlier drive-time debate, which heightened the difference between the top- and second-tier presidential candidates.

While the choice to have the debate venue located in the swing state of Ohio was due to Quicken Loans Arena hosting the Republican Party Convention in 2016, it proved fortuitous, with a high level of excitement over the wide-open field of 17 candidates. More specifically, because of the presence of reality television star Donald Trump, the Republican Party debates were exceedingly visible, drawing audiences well beyond the norm for both Fox News specifically and the great majority of cable television shows more generally. As noted in the introduction, 24 million viewers watched the event live, with numerous others following through simulcast video streams (2.5 million) or watching it afterward (8 million video streams).¹ Not only was the debate a highly anticipated and watched event, stimulating extensive general public interest, it was the focus of ongoing media commentary concerning its effect on candidate prospects.

Fox News Republican Party debate: Face time/one-shots

Given their status as front-runners, our first three hypotheses posited that Trump, Bush, and Walker each would enjoy more total camera time (*H1*), have longer average camera fixation times (*H2*), and spend proportionately more time in “solo” shots (*H3*). Consistent with our first visual priming hypothesis, Trump had more face time than any other candidate, being

on screen for more than 18 minutes during the debate. Bush’s face time of nearly 14 minutes is 2 minutes more than the third-most-seen candidate, providing support for our first hypothesis. This candidate, home state governor Kasich, counterintuitively was the lowest-ranked candidate on stage. However, contrary to our first hypothesis, with just over 10 minutes, Walker had less face time than all nine other candidates. Here, it is important to note that while the network largely structures the debate and guides which candidate received attention, it is up to the candidates to effectively use the time they are given. In this debate, Walker did not use his time effectively: despite being given 60 seconds for answers and 30 seconds for rebuttals, he consistently failed to use all of his allotted speaking time (max = 48.8, $M = 29.4$). Walker’s dereliction in dominating the attention due to him was the result of his comparatively terse responses to mediator questions. This logically led to him commanding less camera time than he would have had otherwise. Even with this being the case, our first hypothesis may be seen as fairly strongly supported in the Fox News debate.

Though we expected the three front-runners to have longer average fixations than the other candidates (*H2*), Bush and Trump actually had the third- and fourth-highest (respectively) average fixation times, behind Cruz and Huckabee. At the same time, Walker’s average fixation time ($M = 11.00$) was the lowest of the 10 candidates, likely because of his failure to use his allotted time. However, the range for all 10 candidates’ average camera fixation time was only 1.54 seconds ($M = 11.00$ to 12.54 seconds). With such low variability, it is difficult to make any particularly strong claims with regard to differences in average fixation length from the outset, but given the data, we did not find support for our second hypothesis when the Fox News debate is considered.

With regard to the third hypothesis, we find that the proportion of candidate time spent in the one-shot, with the exception of Paul and Christie (discussed later), who received substantially less time in solo shots, was relatively equivalent. While all other competitors spent approximately two-thirds of their time as the sole focus of the camera shot, Trump, Bush, and Cruz spent slightly more of their time (2% to 3%) in this visual frame than the other candidates.

Fox News Republican Party debate: Competitive/two-shots

As expected, the two clear front-runners on stage, Trump and Bush, found themselves pitted against the

other candidates in proportionally more side-by-side and split-screen shots (especially with one another) enough to be in the top four candidates in terms of the proportion of competitive shots. However, leading all competitors in this type of shot were eighth- and ninth-ranked (respectively) candidates Paul and Christie, who were pitted against each other for a substantial portion of the debate. Perhaps most telling is that when we consider the total percentage of all competitive shots for this debate, we see these four candidates alone accounting for nearly four-fifths (78.4%) of all competitive shots.

While both Paul and Christie belonged to this category of high competitiveness because of their acrimonious exchange concerning privacy rights and the Constitution, Paul distinguished himself with a highly contentious performance almost from the very start of the debate as he attacked Trump's unwillingness to swear fealty to the Republican Party, likely as a means of elevating attention paid to him and, with it, his electoral position. Furthermore, Paul's and Christie's policy positions placed them at opposite ends of the ideological spectrum within the Republican Party; given their personal history, it is not surprising that these two candidates were so heavily pitted against one another. The findings appear to give *H4* a modicum of support.

Fox News Republican Party debate: Group shots

In line with our fifth hypothesis, that high-status candidates would spend proportionately less time in group shots, Trump and Bush distinguished themselves by being the only two candidates to have less than 30% of their shots in multiple-candidate shots. Walker, as the third-ranked front-runner, would be expected to have a lower percentage as well, but with one-third of his shots being alongside his fellow contenders, this was not the case. These findings should be interpreted with caution, as each candidate accounted for roughly 10% (9.7% to 10.12%) of all multiple-candidate time.

CNN Republican Party debate

CNN hosted the second in the series of Republican debates on September 16, 2015, and followed a similar format to that of Fox News with a drive-time debate followed by a prime-time debate. CNN considered the average of 14 polls to determine who was eligible for the prime-time debate, with the original plan being to invite the top 10 candidates. However, because of her performance in the first Fox News drive-time debate and her standings in the polls, Carly Fiorina was added to the

field for a total of 11 candidates. With the addition of Fiorina, the debate time was increased by an hour to a total of three hours. This was to the great consternation of many of the candidates, who, in addition to the added time, had to stand in the cramped Ronald Reagan Presidential Library, with the candidates within two feet of each other. At the same time, the site was hot, with many of the candidates obviously sweating, and it had a much less boisterous crowd, as only 500 seats were available, with many of them reserved for party elites.

The CNN prime-time Republican Party debate was watched by nearly as many people (22.9 million on television and 4.5 million live streams) as the Fox News debate.¹ This suggests a continuing fascination with front-runner Trump and, to a lesser extent, the other contenders for the nomination. Although the polling numbers had changed, with Trump building on his lead, whereas Bush and Walker saw their numbers drop slightly, the greatest interest going into the debate was how Fiorina would perform, especially given Trump's conflagration with Megyn Kelly over his treatment of women. Though Walker continued to average third in the polls used by CNN prior to the second debate, technically making him a "front-runner," there was a widespread perception that his campaign was in decline based on his poor performance in the first debate and his deteriorating electoral fortunes.

CNN Republican Party debate: Face time/one-shots

Given their continued status as front-runners, we expected that Trump, Bush, and, to a lesser extent, Walker would receive more total camera time (*H1*) during the CNN debate. Consistent with our first hypothesis, Trump had much more face time than any other candidate, with Bush coming in second once again. On the other hand, Walker's "front-runner" status was a nonfactor in terms of driving camera time, as he came in eighth place in total camera time. Perhaps most telling when considering the treatment of the front-runners compared with the rest of the candidates was the distribution of camera time. Namely, the gap between Bush's face time and the next-highest candidate, Fiorina, was 783 seconds; yet the gap between third-place Fiorina and last-place Huckabee was smaller (653 seconds) than the gap between Bush and Fiorina. This gives us a clear picture that the amount of camera time that Trump and Bush received was meaningfully higher than the rest of the candidates. With this being the case, our first hypothesis appears to be strongly supported if Walker is no longer defined as a front-running candidate.

As hypothesized, Bush and Trump had longer average fixations than the other candidates (*H2*). Similar to the distribution of face time, the average difference between second-place Bush and third-place Christie (1.18 seconds) was smaller than the average difference between Christie and last-place Huckabee (0.86 seconds). This illustrates once again that Trump and Bush are a distinct subset of this population. Again, though, Walker ($M = 4.63$) failed to provide support for our second hypothesis by tying for second-to-last place. However, given the questionability of defining him as a front-runner, these findings provide a level of support for our second hypothesis. In summary, findings suggest that visual priming occurred for both front-runners, with Trump benefiting to a much greater extent than Bush and the remaining candidates.

When we look at the proportion of time the candidates spent in solo shots compared with the time they shared on screen with the other candidates (*H3*), we find the opposite of what we expected. Front-runners Trump, Bush, and Walker had the lowest proportion of time, followed by the surging Carson, with the latter three having just over one-fifth of their shots solo. Trump, who had the lowest proportion of solo shots by a sizeable margin, was flanked by Carson and Bush at center stage. As a result, these three candidates were often shown in a single shot. When considering the back-and-forth nature of the exchanges between Bush, Trump, and Carson, a production decision to simply frame all three candidates in the same shot makes sense. This resulted in these three being the only candidates besides Walker to have more than 1,000 seconds of multiple-candidate screen time (Trump = 1,416.97; Bush = 1,366.94; Walker = 1,204.57; Carson = 1,105.31). Although we do not find evidence to support our third hypothesis concerning visual framing, we can reasonably identify why, in this particular case, the data do not match the theory.

CNN Republican Party debate: Competitive/two-shots

Given the level of competitiveness seen between Trump and Bush and between Paul and Christie during the Fox News debate, we expected these four candidates to be placed in higher proportions of competitive shots (*H4*) during the CNN debate. Trump and Bush were pitted against one another enough to make their way into the top two spots in terms of the proportion of competitive shots, whether side by side or in split-screen shots. They were followed by Carson, Christy, Fiorina,

and Paul, with each having over one-fifth of their camera shots competitive. Specifically, rising star Carson — who spent a good amount of time being pitted against Trump — found himself in fourth place, sandwiched between the unsurprisingly combative Christie and Paul who, as in the Fox News debate, were pitted against each other frequently in the split screen from the far ends of the stage. Newcomer Fiorina proved to be surprisingly contentious as well, especially in her confrontation of Trump and his attacks on her physical appearance. Again, if we look at the percentage of total competitive time that each candidate received, Trump (35.0%) and Bush (16.4%) were dramatically higher than all the other candidates who had competitive shots as less than 10% of their total proportion. Specifically, Huckabee, Walker, Kasich, Cruz, and Rubio combined account for less than 16% of all competitive shots. Given these findings, our fourth hypothesis is supported in the CNN Republican Party debate.

CNN Republican Party debate: Group shots

In line with our fifth hypothesis, that lower-status candidates would feature in group shots more often than the front-runners, Trump and Bush had the smallest and third-smallest proportion of time in multiple-candidate shots, with Christie between the two front-runners. On the other hand, Walker had proportionally more multiple-candidate time than any other candidate. While our findings generally support the fifth hypothesis, caution should be exercised when interpreting these results, as all candidates, with the exception of Walker's disproportionately high and Trump disproportionately low numbers, are tightly clustered together. This tells us that the differences between the middle nine candidates were not substantial.

CNN Democratic Party debate

In contrast to the Republican Party debates, the field of contenders for the Democratic Party presidential nomination was relatively small, with only five candidates reaching the threshold average of 1% in three national polls taken from August 1 to October 10, 2015. While many observers and pundits hoped that Vice President Joe Biden would enter the race in time to be a part of the debate, as he was included in most national opinion polls, this was not to be. Instead the debate proved to be mainly a competition between front-runner Hillary Clinton and her chief adversary Bernie Sanders, as the other three contenders — Lincoln Chaffee, Martin O'Malley, and Jim Webb —

polled only in the lower single digits, likely because of prognostication concerning Biden's potential electoral bid.

Although the number of viewers did not reach the level achieved by the first two Republican Party debates, the debate's 15.3 million viewers, along with 980,000 live streams, made it the most-watched Democratic primary debate in history.¹ Although the choice of holding a debate at a Las Vegas casino was considered slightly odd, Nevada's swing-state status likely played a similar strategic electoral role to that played in the Republican Party's debates.

CNN Democratic Party debate: Face time/one-shots

Consistent with our first hypothesis, the two front-running candidates received more camera time, with Clinton gaining the most camera time, followed by Sanders and then the second-tier candidates O'Malley, Webb, and Chaffee. The difference in camera time was identical to the position of each candidate in the polls at the time of the debate, with a substantial drop in camera time from Sanders to the three second-tier candidates.

Our second hypothesis concerning visual priming asserted that high-status candidates would receive longer fixation times. This is supported with findings from the CNN Democratic Party debate, as Clinton and Sanders had substantially more time in front of the camera: an average of 10 seconds more than O'Malley, Webb, and Chaffee. For their part, these second-tier candidates ranged from just under 7 seconds to just over 8 seconds. Thus, we find a high level of descriptive support for our second hypothesis.

Contrary to our third hypothesis addressing visual framing, high-status candidates did not receive a higher proportion of their camera time in solo shots. Webb had the highest percentage of his time in solo shots at just over half of his shots. Front-runners Clinton and Sanders were almost identical in the percentage of their total time that they spent alone onscreen, yet they were in the middle of the pack in terms of solo shots. And while O'Malley and Chaffee had the smallest percentage of solo time on camera, the difference between them and the other candidates was negligible. In sum, the differences may be explained by *H4*, which posited that competitive candidates would be in more two-shots, with Sanders and Clinton deemed highly competitive candidates.

CNN Democratic Party debate: Competitive/two-shots

The most significant finding regarding the visual framing of camera shots was the amount of time

Sanders and Clinton spent in competitive shots (either side by side, usually with each other, or in split screen), showing support for our fourth hypothesis. While these split-screen shots often involved a moderator asking a question, and there were comparatively few candidates — half that of the GOP debates — the competitive shots showed that Clinton and Sanders spent nearly one-third of their total screen times in these shots, suggesting that the network pitted these candidates against each other. O'Malley, Webb and Chaffee received substantially less time in competitive shots, with their proportions diminishing based on their electoral status. In summary, we find strong descriptive support for our fourth hypothesis in the smaller Democratic Party field.

CNN Democratic Party debate: Group shots

Consistent with our fifth hypothesis concerning visual framing, the higher-status candidates (Sanders and Clinton) were shown in proportionately less time in multiple-candidate shots (three or more candidates at one time) than the other three candidates. Specifically, Chaffee spent substantially more of his total time in multiple-candidate shots, followed in order by O'Malley, Webb, Sanders, and Clinton.

CBS Democratic Party debate

The second Democratic Party presidential primary debate was notable for multiple reasons. Despite the debate field shrinking to the two front-runners, Clinton and Sanders, along with O'Malley, there was a renewed outcry that there were too few debates to properly introduce the party's contenders to the electorate. Additionally, there was the perception that, by airing the debate on a Saturday evening, the Democratic Party was attempting to limit public attention and awareness to protect its front-runner, Clinton. There appeared to be a good deal of validity to this charge, as the debate was viewed by 8.5 million viewers and had only 1.2 million live streams.¹ Furthermore, the debate was overshadowed by terrorist attacks on Paris earlier that week.

A further notable change was the introduction of a novel means of presenting the debate that used the product of cosponsor Twitter. The screen as seen by viewers was set up so that the candidates took up only slightly more than half the television screen (about 54%), with the remainder taken up by tweets from a range of individuals, including Republican Party presidential candidates, on the screen's right side, and infographics concerning the numbers of tweets referring to the candidates and different topics on the bottom of the screen.

While the saturation of information may have been an attempt to attract a younger, more tech-savvy viewership, at the same time, the information presented in these graphics may have distracted viewers from the candidates and their messages.

CBS Democratic Party debate: Face time/one-shots

Without Chaffee and Webb contending for the nomination, the three remaining candidates received a higher proportion of the time available, although they all received less total camera time because of the diminished length of the debate. As in the CNN debate, our first hypothesis pertaining to visual framing is supported, as Clinton had the most camera time, followed by Sanders and then O'Malley. This was consistent with the polling numbers at the time of the debate.

Our second hypothesis found a modicum of support, although at marginal levels, as the front-runners Clinton and Sanders averaged slightly higher fixation time than the second-tier candidate O'Malley. However, the rather limited range in fixation times between the three candidates may be explained by the fact that nearly half of all camera shots focused on two or all three candidates.

Finally, we found that although CBS spent more time in solo shots than CNN, both high-status candidates, Clinton and Sanders, received slightly more solo camera time than O'Malley. We thus find a measure of support for our third hypothesis addressing visual framing.

CBS Democratic Party debate: Competitive/two-shots

While there were fewer competitive shots and no split-screen shots except one between Sanders and the moderator, Clinton and Sanders still received significantly more side-by-side time than O'Malley. This finding is consistent with our fourth hypothesis concerning visual framing. Interestingly enough, because there were no split-screen shots between O'Malley and Sanders, these candidates were not on the screen at the same time unless Clinton was visually shown between them, which influenced O'Malley's group shot proportion.

CBS Democratic Party debate: Group shots

Consistent with our findings from the previous CNN debate and our fifth hypothesis, O'Malley had a substantially higher proportion of his screen time in multiple-candidate shots, which in this case mostly include shots showing all three candidates. When compared to Sanders and Clinton, O'Malley's second-tier status was underscored. In other words, O'Malley was visually framed as being an also-ran in comparison with Clinton and Sanders.

Debate comparisons

Comparisons between the networks and how they treated the political candidates, while not necessarily revealing enduring differences among Fox News, CNN, and CBS, allows us to draw inferences about how the early debates may have influenced the campaigns that followed, and, as a result, public perceptions. When considering candidate camera time for the four debates, which included all the different types of camera shots and often multiple candidates in a single shot, we see variations in how the different networks presented the candidates, both in the length of the camera shot fixations and in the distribution of types of shots (see Tables 2, 3, 4, and 5 and Figure 2). When the length of camera shots was considered, Fox News was the most stable, with an average of nearly 12 seconds per shot. In comparison, CNN's coverage of the next Republican debate was frenetic, with an average of less than 6 seconds per shot. While the Democratic Party debates provided midpoints in terms of fixation time, the CNN debate held camera shots longer than either the GOP debate earlier in the fall or the CBS debate that featured two fewer candidates.

Analysis of the distribution of camera shot type provides insight into why this marked difference in average shot length varied between the debates. Namely, Fox News and CBS predominantly used the solo shot when the candidates were in view. While this likely reflects the older demographic of both networks and their visual consumption preferences, it also underscores what Messaris¹⁴ notes as a stylistic rigidity reflecting authoritarian perspectives. On the other hand, CNN focused its efforts on portraying the candidates in competitive shots, whether side by side or in split screen. Here, the GOP debate led the way with more than one-quarter of shots (27.7%) visually framing competition between the candidates, while just over one-fifth of the first Democratic Party debate's camera shots (21.4%) were competitive frames. While CNN's frenetic competition-oriented style can partly explain the proportionately high level of multiple-candidate shots during the fully loaded Republican Party debate, CBS had the highest proportion of multiple-candidate shots with just three Democratic Party presidential contenders. Finally, audience reaction shots did not appear to vary to any great extent among the networks, although they were in evidence for all of them (see Appendix 2).

Because multiple candidates were in many of the shots, there were a limited number of camera shots

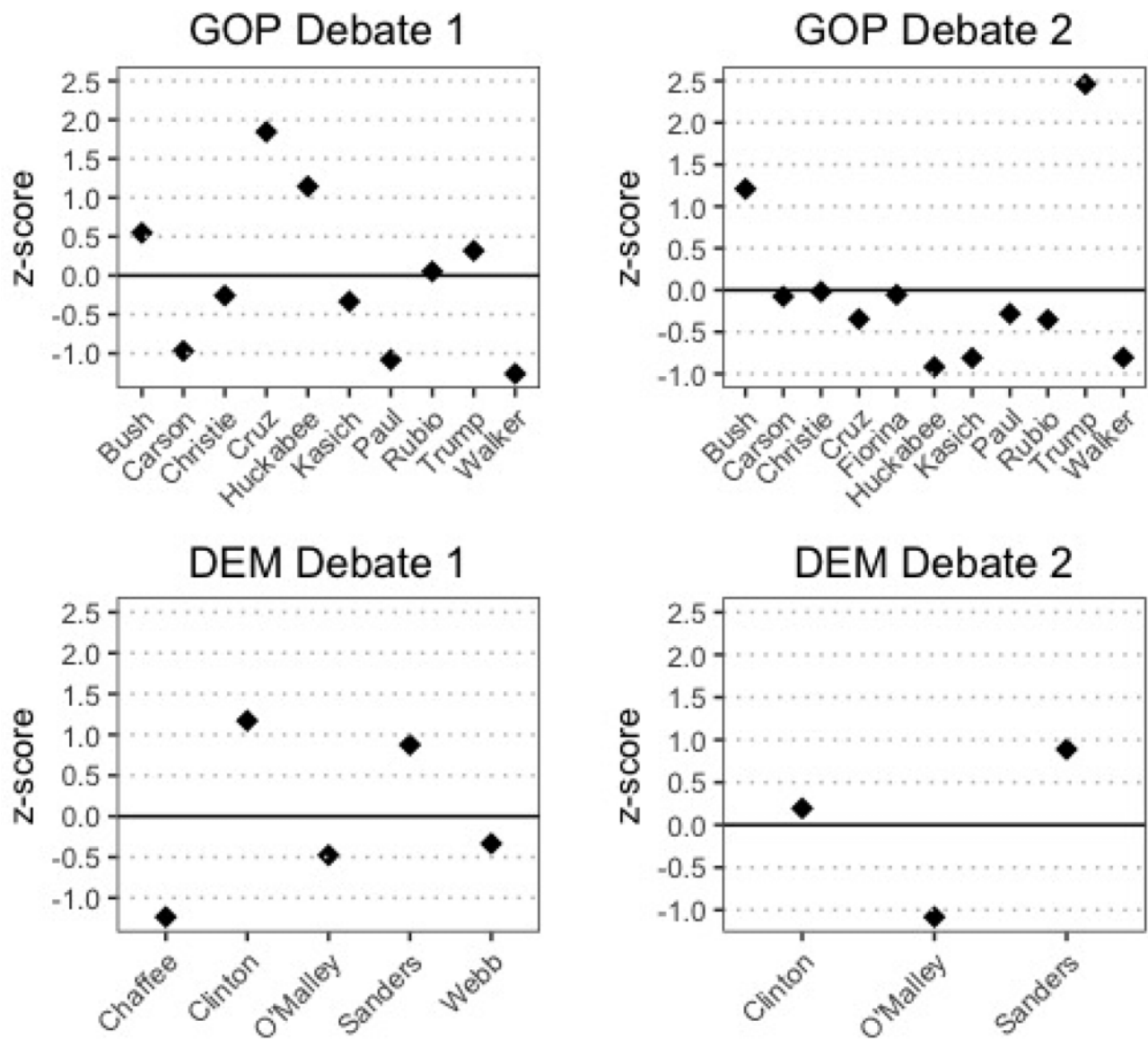


Figure 2. Total camera time by debate and party.

focusing solely on the head and shoulders of individual candidates. Indeed, a comparison of the types and numbers of camera shots chosen by the cable news networks to present the candidates suggests differing camera styles. Specifically, CNN presented a much more frenetic style compared with Fox News, with not only more camera shots — often more than five times more camera shots per candidate — but also fewer shots focusing on a single candidate. While the CNN debate was a three-hour debate, compared with two hours for the Fox News debate, camera time in which the GOP

candidates were visible was greatly enhanced because of the increased proportion of multiple-candidate shots.

More considered comparisons of the candidates across the four debates analyzed in this manuscript can be made through the use of standardized scores of both time on screen and in different camera shots. Namely, *z*-scores provide for analysis of the distribution of visual production time by considering the allocation of candidate coverage. In other words, while we cannot draw stronger inferences concerning how the candidates were treated in terms of visual priming

Table 2. Fox News Republican Party debate.

	Candidate time (seconds)	% total time	Fixation mean (SD)	Solo	Split screen	Side by side	Multiple candidates	Audience
Bush	832.88	11.59%	11.90 (16.95)	66.2%	1.6%	5.9%	26.1%	0.2%
Carson	646.39	8.99%	11.14 (14.56)	63.9%	0.6%	1.6%	33.9%	—
Christie	678.39	9.44%	11.50 (16.14)	49.8%	17.8%	—	31.9%	0.5%
Cruz	652.24	9.08%	12.54 (17.76)	66.3%	—	0.4%	33.3%	—
Huckabee	670.71	9.33%	12.19 (17.48)	62.6%	4.1%	0.4%	32.4%	0.5%
Kasich	699.09	9.73%	11.46 (17.41)	57.3%	5.6%	—	31.1%	6.0%
Paul	632.04	8.79%	11.09 (13.49)	44.9%	20.0%	—	34.4%	0.7%
Rubio	652.48	9.08%	11.65 (16.17)	63.0%	2.8%	0.4%	33.4%	0.4%
Trump	1,095.94	15.25%	11.78 (15.70)	67.1%	7.2%	4.9%	19.8%	1.0%
Walker	626.95	8.72%	11.00 (13.77)	63.6%	0.6%	1.8%	33.5%	0.4%
Sum	6,224.69		11.63 (15.89)	88.5%	3.5%	1.1%	5.0%	1.9%

and visual framing, by using statistical measures that allow for visually comparing distributions and how front-running candidates were treated in comparison with the other candidates across the four debates, we can make preliminary conclusions.

Findings suggest that while the front-running two candidates for both parties were the recipients of markedly more camera time than the other candidates, this pattern was accentuated with the more populated debates on the Republican Party side (see Figure 2). Perhaps more salient, Trump was the beneficiary of substantially more camera time than even fellow front-runner Bush in both the Fox News (Trump $z = 2.599$ versus Bush $z = 0.787$) and CNN (Trump $z = 2.539$ versus Bush $z = 1.128$) debates; indeed, his ranking in camera time, more than two standard deviations above the mean, established him as the true electoral outlier, regardless of political party. In comparison, on the Democratic Party side, Clinton had a z -score barely above one standard deviation in the CNN debate ($z = 1.295$) and within one standard deviation in the CBS debate ($z = 0.890$). While this may be due to the many fewer candidates on stage for both Democratic debates, what matters is that Trump stood out from all other candidates.

We likewise considered how much time the camera spent on a given candidate before cutting away by computing z -scores for each candidate’s mean camera fixation time (see Figure 3). This allowed us to see whether networks were visually priming the audience to differentially perceive the candidates as viable leaders. These data show that across the four debates, only Trump, specifically during CNN’s Republican Party debate, had substantially longer camera fixations ($z = 2.46$) than the other candidates (range_{zs}: -1.26 to 1.84). During this debate, Bush ($z = 1.21$) was the only candidate besides Trump to have a positive z -score, providing modest support for our visual priming hypotheses concerning fixation time (H2). While for the Fox News debate, Cruz ($z = 1.85$) and Huckabee ($z = 1.14$) had substantially higher z -scores than the rest of the field, including Trump, their scores were well within the bounds of expectations. Likewise, on the Democratic side, neither CNN (range_{zs}: -1.23 to 1.17) nor CBS (range_{zs}: -1.08 to 0.89) gave a significant visual priming advantage to any candidate, although there were trends toward front-runners Clinton and Sanders having slightly longer than average fixation times during both debates.

When analysis of visual framing (H3, H4, H5) through standardized scores was carried out, we

Table 3. CNN Republican Party debate.

	Candidate time (seconds)	% total time	Fixation mean (SD)	Solo	Split screen	Side by side	Multiple candidates	Audience
Bush	2,847.74	12.65%	6.56 (10.78)	20.0%	8.5%	22.9%	48.0%	0.5%
Carson	2,062.47	9.16%	5.33 (7.62)	21.6%	4.5%	19.7%	53.6%	0.6%
Christie	1,911.48	8.49%	5.38 (9.20)	28.0%	24.6%	0.2%	45.3%	1.8%
Cruz	1,790.19	7.95%	5.07 (7.45)	30.4%	11.6%	2.8%	54.3%	0.8%
Fiorina	2,064.75	9.17%	5.35 (9.83)	27.6%	17.9%	3.2%	49.6%	1.6%
Huckabee	1,411.13	6.27%	4.52 (6.95)	36.0%	3.1%	0.4%	59.1%	1.4%
Kasich	1,563.38	6.94%	4.63 (6.87)	29.8%	6.4%	3.7%	58.8%	1.4%
Paul	1,627.12	7.23%	5.13 (8.92)	27.4%	22.8%	0.4%	48.2%	1.3%
Rubio	1,711.41	7.60%	5.06 (8.72)	28.3%	15.5%	1.5%	53.1%	1.5%
Trump	3,848.97	17.10%	7.76 (12.52)	13.2%	24.1%	25.6%	36.8%	0.3%
Walker	1,676.2	7.44%	4.63 (7.34)	20.6%	4.3%	2.2%	71.9%	1.1%
<i>Sum</i>	10,287.65		5.52 (9.16)	56.8%	16.4%	11.3%	14.0%	1.6%

Table 4. CNN Democratic Party debate.

	Candidate time (seconds)	% total time	Fixation mean (SD)	Solo	Split screen	Side by side	Multiple candidates	Audience
Chaffee	1,108.18	10.45%	6.72 (11.38)	40.4%	11.0%	0.0%	43.9%	4.7%
Clinton	3,321.10	31.31%	10.71 (15.72)	44.8%	9.0%	24.0%	20.0%	2.2%
O'Malley	1,802.20	16.99%	7.97 (12.35)	42.0%	7.7%	11.5%	35.4%	3.4%
Sanders	2,841.59	26.79%	10.22 (14.81)	44.5%	7.1%	23.7%	22.1%	2.6%
Webb	1,535.36	14.47%	8.21 (11.67)	51.2%	8.5%	5.4%	30.9%	4.0%
<i>Sum</i>	7,446.98		9.10 (13.76)	66.9%	9.5%	11.9%	9.3%	1.9%

likewise discerned specific patterns in the visual production choices made by the networks, reflecting context and viewership. For both Republican Party debates, Trump once again was an outlier in the manner in which he was presented to viewers, although in a different

manner for each network. During the Fox News debate, Trump was proportionately much less likely to be presented in multiple-candidate shots ($z = -2.436$) and much more likely to be seen in two-shots during the CNN debate ($z = 2.268$). Comparatively, only Paul and

Table 5. CBS Democratic Party debate.

	Candidate time (seconds)	% total time	Fixation mean (SD)	Solo	Split screen	Side by side	Multiple candidates	Audience
Clinton	2,688.03	39.63%	6.79 (6.71)	56.3%	—	15.9%	26.9%	0.9%
O'Malley	1,741.60	25.67%	6.43 (6.91)	50.9%	—	5.8%	42.5%	0.8%
Sanders	2,353.68	34.70%	6.98 (7.50)	54.4%	0.20%	14.1%	30.6%	0.7%
Sum	6,783.31		6.76 (7.03)	74.1%	0.1%	8.7%	14.7%	1.0%

Walker received such outlying visual framing during any of the debates analyzed in this manuscript, with Paul proportionately less likely to be shown in solo shots by Fox News ($z = -2.069$) and Walker proportionately more likely to be seen in CNN's multiple-candidate shots ($z = 2.144$). The visual framing findings in this study suggest that in debates with numerous candidates on stage, there were big winners and big losers. During the early debates of the 2016 presidential election, the big winner was Donald Trump.

General discussion

As discussed, even subtle factors such as the choice of camera shot have the potential to influence perceptions of candidates through the visual frame being consumed by the audience.^{20,21,22,29} As a result, negotiations between candidates, political parties, and the networks broadcasting the debates are often tense and highly contested, with debate contracts many pages long.^{18,50} Despite attempts by campaigns to control how their candidates are presented, what actually transpires during a debate is not completely under their control. Numerous factors, including candidate performance, interact to influence debate outcomes. Indeed, primary debates with their multiple candidates provide examples of the ambiguity and flux that can be seen in production choices made by the networks despite the best efforts of the campaigns to influence the outcomes.

Debates have long been derided for being side-by-side press conferences in which the candidates present positions yet never quite confront each other directly, thus masking their intellectual shortcomings.^{50,51,52,53} This was not the case with these initial primary debates, as Fox News and CNN moderators emphasized political and policy differences between the GOP candidates,

often pitting them against each other verbally and visually. As a result, viewers had ample opportunities to make direct comparisons between specific candidates in terms of not only their enunciated policy positions but also their nonverbal style. While policy positions matter, the limited time given to each candidate and limited scope of discussion likely did not play as large a role as the automatic, visceral “thin slice” judgments⁵⁴ made concerning the capacity to lead and the intent signaled to Republican Party members.⁵⁵

Additionally, and more subtly, how the media visually presented the candidates affected how the candidates were able to present themselves. While it is up to each candidate to best use his or her time to connect with the audience, the questions asked and the camera shots chosen by the networks producing the debates can artfully define a candidate and his or her role in the debate^{27,50} and, ultimately, the campaign. Whether visually priming viewers to perceive a candidate as a viable leader by placing him or her in the visual and verbal center of contentiousness, as was the case with Trump throughout the Fox News and CNN debates, or visually framing contenders as leaders by limiting camera shots to mainly head-and-shoulder shots and competitive shots with other viable candidates or diminishing their leadership potential through multiple-candidate shots that either emphasize their being just another pack member, the visual production choices made by the networks influence public perceptions.^{24,29} It is questionable whether these choices are consciously malicious toward specific candidates and benign toward others, especially as candidates in the current media environment understand that “good television” likely leads to better and more coverage; however, there is still the potential for visual bias affecting audience response and media reporting of the event.

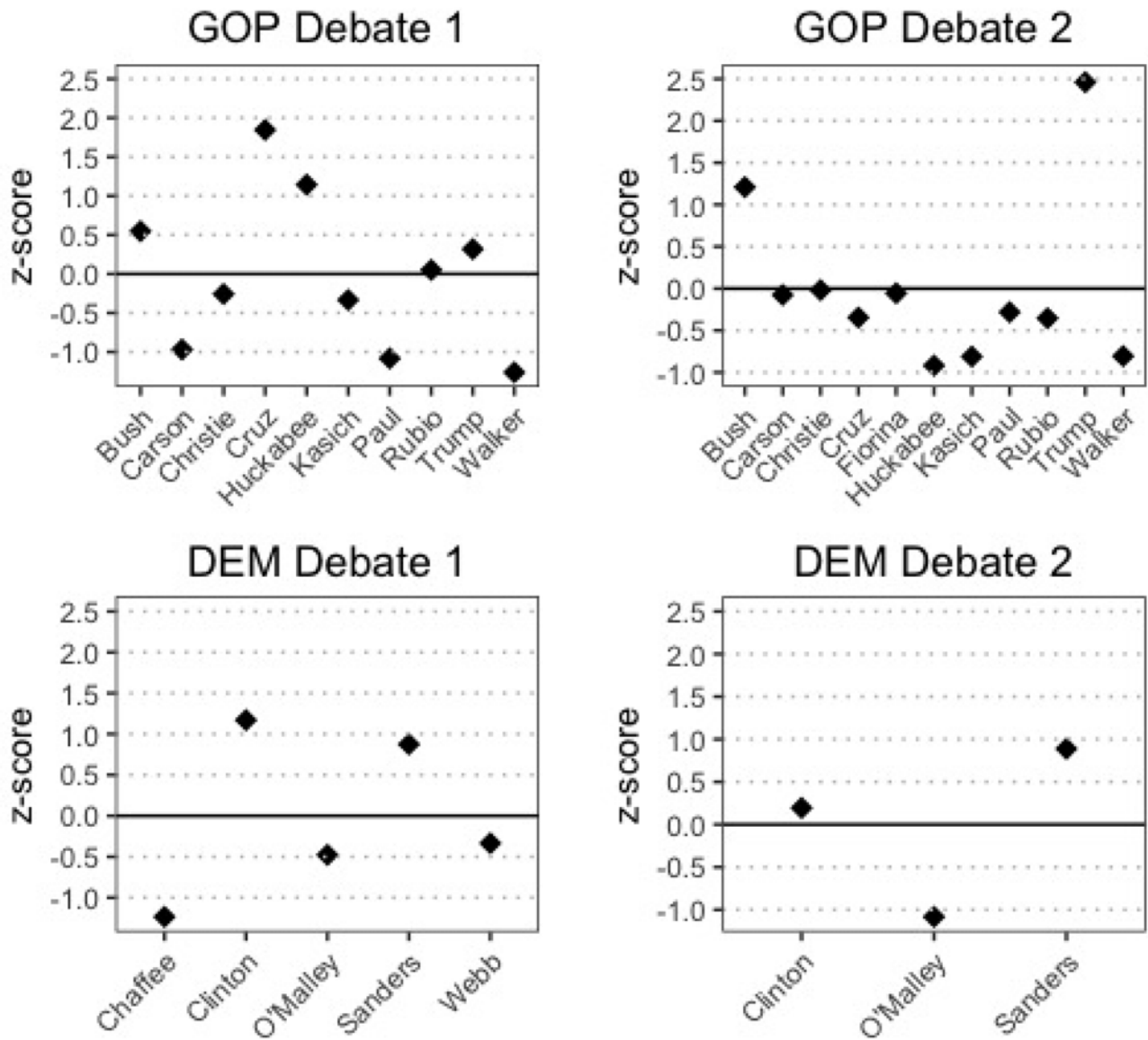


Figure 3. Mean camera fixation time by debate and party.

Further, it should be noted that primary debates are organized and implemented by for-profit private corporations. While public service certainly does play a role in the commission and execution of debates, with journalistic norms and organizational processes curbing the most egregious of media primes and frames, ratings and network promotion can still be expected to play a major role in production decisions.^{11,12} Without a doubt, Donald Trump proved to be ratings gold, a fact underscored by comparisons with his fellow pres-

idential candidates regarding how he was primed and framed visually during these initial primary debates.

Conclusions and future research

In conclusion, while previous research has suggested that early primary debates tend to have a large initial effect that diminishes over time,⁵⁶ as candidates with greater resource bases are able to endure,^{4,5} the electoral landscape is evolving with new technologies.

Because of the role of social media, with its emphasis on visual learning and political processing,⁵⁷ candidate performance is now more important in providing both immediate and lasting impressions with the media and the general public.^{18,58} Indeed, the mastery of both social and traditional media by Donald Trump can be seen as a major, if not the foremost, reason for his electoral success.^{6,7,9} As a result, greater understanding and monitoring of media framing techniques, both verbal and visual, should be a continuing part of the political process, especially as the average citizen likely does not monitor nor critique the visual strategies that implicitly and automatically affect their impressions.^{14,15}

Future research is needed to better understand not just the production decisions made concerning speaking time and camera shot choice⁵⁰ but also the effect these decisions have on viewer perceptions and action. In the case of the former, it can be expected that production decisions will vary across the news networks hosting the debates, the political parties and the number of contenders possessed, and the times (pre-primary, primaries, and general election) during the electoral season.^{3,29} While this study considered different types of camera shots, as suggested by Bucy and Newhagen,²⁴ it did not fully consider the range of angles, cuts, pans, framing, and cropping that could likely influence viewer perceptions and evaluations.^{14,29} Likewise, timing of these video production decisions can influence how viewers perceive the candidates, with both the initial and latter stages of the debates potentially influencing viewer perceptions of the candidates to a greater extent.⁵⁹ Thus, these choices likely influence viewers automatically and without their awareness by affecting how they perceive candidate nonverbal capacity cues and behavioral signals of intent and personality traits.

While response to nonverbal display behavior by presidential candidates during general elections has been studied with some success, both regarding physiological and emotional response,^{17,44,48} as well as through second-screen interactions with mobile device users,⁶⁰ how viewers respond to multiple candidates presented in varying ways has yet to be considered in depth. Given the increasingly salient and influential role played by primary debates in framing the choices ultimately available to general election voters, as seen in the 2016 presidential campaign, such research has important implications for the electoral process and the representative democracies that rely on them to provide guidance and leaders.

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