Deception Detection in Politics: Can Voters Tell When Politicians are Lying?

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Accepted: 12 August 2021 / Published online: 20 August 2021

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Abstract

In this study, we investigate voters' unaided perceptions of whether politicians are lying. We conduct an experiment in which participants attempt to uncover politicians' dishonesty by watching videos of their speeches. We find that verbal cues (specifically, the amount of detail in the speech) and general demeanor cues explain the success (failure) of veracity judgments far better than paraverbal and nonverbal cues. We also find evidence of a truth bias—people are more likely to judge statements to be true than false—despite the political setting, where voters might have been more skeptical. However, gender plays a deterministic role for veracity judgments in political context; female politicians are more likely to be judged as honest.

Keywords Deception · Politics · Lying · Cues · Politicians · Veracity · Judgement · Voters

One might say that dishonesty in politics is a long-standing tradition. Plato proposed a justification for politicians' lying in "The Republic": "Then if anyone at all is to have the privilege of lying, the rulers of the State should be the persons; and they, in their dealings either with enemies or with their own citizens, may be allowed to lie for the public good." (Plato, 1901:70). As a detractor of democracy, he likely cared little whether the public would be able to detect such deception. While such a "royal lie" would be beneficial to philosopher kings, for actual politicians, the

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“public good” casts a wide net. Many politicians have clearly benefitted from telling voters what they want to hear or what they want to believe, and history is filled with examples of politicians lying to cover up crime and corruption.¹ What are the consequences? “The lie has long since lost its honest function of misrepresenting reality,” writes Theodor Adorno. “Nobody believes anybody, everyone is in the know” (Adorno, 2005: 30).

Dishonesty in politics is important because it poses a threat to electoral accountability. Citizens who can detect political lies are more safeguarded against attempted manipulation by elected officials. This in turn incentivizes politicians to avoid disseminating blatantly false information, lest they be punished by the electorate in the future. On the other hand, if the public largely fails to detect politicians’ mendacity, this poses challenges to the free and fair dissemination of ideas—and debate thereof—that comprise political discourse. Politicians who can convince a large swath of the public to believe their lies would have outsized impact in the shaping of public opinion.

There is some evidence that voters have developed the ability to root out politicians’ lies. Woon (2017) finds that citizens can detect the truth from transcripts of political speeches. Rossini (2010) tested people’s ability to correctly identify political truth from politicians’ facial expressions and voices, rather than the content of the political speeches themselves. However, the political science literature about detecting deception is predominantly focused on fact-checking, which is the adjudication of political statements by mass media outlets such as Politifact.com and the *Washington Post*. These studies examine whether fact-checks can ultimately change public opinion, and under which conditions they are most effective (e.g., Berinsky, 2017; Capella & Jamieson 1997; Fridkin et al., 2015).

In this study, we conduct an experiment in which participants attempt to uncover dishonesty by watching videos of politicians who might be lying. Our research contributes to the literature on political deception in two ways. First, we draw upon the extant psychology literature on deception detection, examining fourteen specific cues across four categories (verbal, nonverbal, paraverbal, and general demeanor) that voters are most likely to draw upon when considering the veracity of political statements. To our knowledge, no previous study has systematically examined such a broad range of cues. We find that verbal cues (specifically, the amount of detail in the speech) and general demeanor cues explain the success (and failure, respectively) of veracity judgments far better than paraverbal and nonverbal cues. Second, we examine whether truth bias—that people are more likely to judge statements to be true than false—exists in a political setting, where voters may be more skeptical. We find evidence of a truth bias but also that gender plays a deterministic role for veracity judgments in political context; female politicians are more likely than their male counterparts to be judged as honest.

¹ See Callander and Willkie (2007) for strategic calculations behind political deception.

A Questionable Relationship with the Truth

Though politicians may bear certain psychological costs of breaking trust (Battigalli et. al. 2013; Charness & Dufwenberg, 2006; Corazzini et al., 2014), we also know they lie strategically (Austen-Smith, 1992; Bucciol & Zarri, 2013) and attempt to avoid detection. Politicians face many situations for which lying is a potential solution. For example, a politician in a marginal seat may feel compelled to lie about anything that, if admitted, will cost the election (Armstrong-Taylor, 2012). By some accounts, politicians' lying is a rational response to the expectation that other candidates will engage in deceptive behavior (Woon & Kanthak 2016). Furthermore, Davis and Ferrantino (1996) theorize that lying is incentivized by the lack of transferable property rights to political office—it's easier and faster to return a faulty used car than a faulty politician. Furthermore, Janezic and Gallego (2020) find that politicians with a greater willingness to lie have a better chance of being re-elected.

A recent study shows that politicians tend to be dishonest even when their preferences are aligned with those of their constituencies (Woon & Kanthak 2016). Lying is commonplace enough for researchers to develop taxonomies of political lies; Pfiffner (1999) delineates three types of lying by presidents: justifiable lies, lies to prevent embarrassment, and lies of policy deception, each having different consequences and effects on public trust. This propensity to compromise honesty is furthermore exacerbated by the structure and size of rewards from holding public office (Caselli & Morelli, 2004); the more lucrative the payoff looks for a decision-maker, the more likely she or he to lie to get that payoff (Gneezy, 2005; Gneezy et al., 2013).

Some consider ambiguity to be a method of deception, such as when politicians have a policy preference but, for political gain, either attempt to obfuscate it or pretend they do not have a stance. Ambiguity serves well if a candidate is uncertain about the position of the median voter; being purposefully ambiguous about one's policy positions allows a candidate more time to investigate voters' preferences (Glazer, 1990). Such ambiguity can be harmful to voters; for one, it leaves voters uncertain about which candidate is more extreme (Schnakenberg, 2016). When multiple politicians send competing messages to the same voters, they leave voters to wonder which messages are truthful and which are not (Minozzi, 2011). Surprisingly, ambiguity in political rhetoric does not always repel voters and even may, on the contrary, attract them. The preference for an ambiguous candidate is a function of an individuals' risk orientation and preferences for candidates from one's own party (Tomz & Houweling, 2009). While politicians are hesitant to tell complete ("black") lies, they are strongly inclined to deliver partially true claims, or "grey lies" (Bucciol & Zarri, 2013), such as exaggeration. Candidates may exaggerate their messages because their communication with voters exists in a noisy environment with many other actors and messages (Minozzi & Woon, 2016). In sum, politicians lie to voters in a variety of ways for a variety of reasons. Can voters figure out when they are lying?

A Primer in Psychology Research on Deception Detection

The ability to accurately assess the credibility of messages provided by another person has been well-studied in psychology (Bond & DePaulo, 2006; DePaulo et al., 2003; Vrij, 2008), so it is important to draw upon that literature when investigating voters' abilities to assess the credibility of politicians. The literature provides a basis for predicting the types of behaviors voters will attend to, and the behaviors by politicians that will help them lie more (or less) successfully. Past research has examined messages in text form, audio form, and video form, and includes statements provided during one-on-one interactions, as well as statements recorded to be shown to observers at a later time (e.g., Bond & DePaulo, 2006). While some research focuses on the use of tools designed to facilitate deception detection (e.g., the polygraph; Statement Validity Analysis), the focus of this review is intuitive lie detection. In other words, we look at the ability of one person to assess the veracity of a message provided by another person, without any additional tools.

Across this vast literature, there are two findings about these unaided assessments of truth that are arguably the most consistent. First, people have a truth bias. In other words, they are more likely to judge statements as true than false. Relatedly, they tend to have higher accuracy rates when assessing true statements than false statements (Bond & DePaulo, 2006). There are many potential reasons for this bias that have been proposed (Vrij, 2008). One, for example, is that it is not socially acceptable to go through life suspicious of what one is told and questioning the honesty of those around you. As such, people tend to accept what they are told at face value. In some cases, there may be a lack of motivation to learn the truth (e.g., catching a cheating spouse), sometimes referred to as the ostrich effect, again leading to accepting a message without question. However, an exception to this rule is that law enforcement may demonstrate a lie bias when evaluating suspect statements (Meissner & Kassin 2002), possibly because they expect a high base rate of deception.

The second consistent finding is that humans are not particularly skilled at detecting deception. In their meta-analysis, Bond and DePaulo (2006) report a 54% accuracy rate across studies; while this is technically greater than chance at a statistically significant level, it is certainly not an impressive success rate. Further emphasizing that credibility assessment is not a task at which humans naturally excel, "experts" who must assess credibility regularly in their profession (e.g., law enforcement, judges) perform at the same low levels as novices (Bond & DePaulo, 2006).

There are two commonly suggested explanations for why this may be the case. These have been referred to as the "wrong subjective cues hypothesis" and the "weak objective cues hypothesis" (Hartwig & Bond 2011). The wrong subjective cues hypothesis suggests that people rely on the wrong cues when attempting to identify deception. Indeed, there is much evidence to suggest this is the case. In 51/58 countries the most frequently reported cue to deception was gaze aversion (Global Deception Research Team, 2006) and generally speaking, many of the behaviors that deceptive individuals are expected to display are based in the assumption that liars are experiencing anxiety and shame (Bond & DePaulo, 2006). However, these types of cues (e.g., fidgeting, blushing, gaze aversion) are, in fact, *not*

associated with deception (DePaulo et al., 2003). Rather, some cues that were most strongly associated with veracity were impression of verbal/vocal immediacy (liars seem less immediate), ambivalence (liars seem more ambivalent), number of details provided (liars provide fewer details), and verbal/vocal uncertainty (liars seems less certain).

The fact that the cues people expect to be associated with deceit are not diagnostic may account for poor deception detection accuracy. However, the research on cues to deception also indicates that not only are the stereotypical cues to deceit not useful, but that there are few useful cues, and these “useful” cues are of very limited value. This is the basis for the weak objective cues hypothesis. Only 12 of the 158 cues examined in the DePaulo et al (2003) metaanalysis met the effect size threshold of $d > 0.2$, and only four of those (verbal/vocal immediacy, ambivalence, number of details provided, and verbal/vocal uncertainty) met the threshold of $d \geq 0.3$.² These findings suggest that even if people relied on the most useful cues, differences between liars and truth-tellers would *still* be difficult to detect because those cues are quite weak. A lens model meta-analysis tested which of the two aforementioned hypotheses better account for the data (Hartwig & Bond 2011) and the findings indicate that the weak objective cues hypotheses best accounts for poor deception detection accuracy.

Deception Detection Cues

In the current study we investigated several cues that might be relied on by voters attempting to evaluate politicians’ credibility. These cues are either known to be commonly reported as indicative of deception by laypeople (“common cues”) and/or have been shown to be associated with statement veracity (“useful cues”). We classified the cues based on various aspects of the speaker’s behavior, specifically a speakers’ *verbal* behaviors (e.g., content of statement), *paraverbal* (i.e., vocal) behavior (e.g., pitch), *non-verbal* behavior (e.g., fidgeting), and *global demeanor* impressions (e.g., nervousness).

Verbal cues are generally considered to be the best cues to rely upon in the deception literature (Bond & DePaulo, 2006; Vrij, 2019). Indeed, the most obvious cue that something is a lie is that it contradicts something that is known (or believed) to be true. Relatedly, statement plausibility is a commonly reported cue to deception (Hartwig & Granhag, 2015), and it is also a predictor of statement veracity (e.g., DePaulo et al., 2003). As such, we examined whether participants reported relying on statement content. We also included another useful verbal cue, and perhaps the most discriminating and well-studied cue in the literature: amount of detail (e.g.,

² Note that this excludes any cues that were examined by fewer than six studies. Their effect sizes are measured using Cohen’s d ; a common rule of thumb for effect sizes in the psychological literature is that a $d = .2$ is small, a $d = .5$ is medium, and $d = .8$ is large, though we admit that these distinctions are somewhat arbitrary.

DePaulo et al., 2003; Luke, 2019). Truthful statements generally are longer/more detailed than false statements.

Paraverbal cues are auditory in nature, like verbal cues, but relate to how something is said rather than what is said; one does not have to understand what is being said in order to pick up on paraverbal cues. While several of the most common cues are paraverbal in nature (e.g., hesitations), they are less reliably associated with veracity than verbal cues. In the current study we examined four paraverbal cues: hesitations, speech errors, voice pitch, and (un)certainity. The first three of those are commonly reported cues to deception (Hartwig & Granhag, 2015). The DePaulo et al. (2003) meta-analysis did in fact find that higher voice pitch is associated with deception. Also found to be associated with deception was uncertainty. The utility of hesitations and speech errors is less clear. In the DePaulo et al. meta-analysis these were generally not useful cues, regardless of the specific measure (e.g., filled vs. unfilled pauses). However, it is worth noting that in Vrij's (2008) review more studies had been done, and the utility of speech errors may be greater than indicated by DePaulo et al. (2003). While most of the 43 studies summarized did not find significant differences in speech errors across veracity conditions, 17 studies did find liars had more speech errors (and only 3 found that liars had fewer speech errors).

For non-verbal cues to deception, we focused on gaze/eye movement, fidgeting, and facial expressions. Eye contact/gaze aversion is the most universally reported cue to deception (Global Deception Research Team, 2006), although it does not actually correlate with deception (DePaulo et al., 2003). Fidgeting is also a common cue (Hartwig & Granhag, 2015), yet it has not been linked to deception (although there are different measures of fidgeting, and some may be more useful than others; DePaulo et al., 2003; Vrij, 2008). We also included facial expressions, given that the concept of using microexpressions to detect deceit has to some extent reached the general population thanks to popular shows like *Lie to Me*. Unfortunately, the empirical literature has failed to find that attending to microexpressions is particularly useful when assessing credibility (e.g., Jordan et al., 2019).

We examined global impressions of speaker demeanor in addition to the more specific behaviors described above. There seems to be a general belief that lying is morally wrong, which should leave liars feeling guilty/ashamed, and leave them nervous about the possibility of being caught in a lie (e.g., Bond & DePaulo, 2006). As such, we examined guilt/shame, nervousness, and the flip side of nervousness—calmness. DePaulo et al. (2003) did in fact find that impressions that a speaker was nervous or tense were associated with deception. We also examined impressions that the speaker was thinking hard. This cue is consistent with the cognitive load approach to lie detection which posits that lying is more difficult a task than truth-telling and has support in the research literature. Vrij et al. (2001) in fact found that police officers' impressions that a suspect was thinking hard better predicted deception than explicit deception judgments. Finally, we examined confidence, as this is broadly associated with credibility (e.g., Semmler et al., 2012; Tenney et al., 2011). In line with this, competence and ambivalence are cues that evaluators rely on (Hartwig & Bond 2011), and ambivalence and certainty are useful cues to deception (DePaulo et al., 2003).

Voters and Deception Detection

When it comes to deceptive behavior and veracity judgments in politics, there is a dynamic between the sender (politician) and the receiver (voter) which is not typical for ordinary interactions between individuals. If citizens think that politicians lie frequently, they may be reluctant to believe politicians' words easily. Voters are in a particularly difficult situation when it comes to detecting the deception of politicians, because politicians often have the opportunity to plan their lies, as opposed to making them up on the spot. Research suggests that planned lies, as one might expect, are more difficult to detect than spontaneous lies (Bond & DePaulo, 2006). On the other hand, politicians may be especially motivated to get away with their lies, and a sender's motivation to be believed is associated with higher deception detection accuracy (Bond & DePaulo, 2006).

The public's low knowledge of and inattentiveness to political issues (Carpini et al., 1996; Converse, 1964; Zaller, 1992) constitutes another peculiarity of political deception. Situational familiarity influences people's veracity judgments in interpersonal settings (Reinhard et al., 2011; Reinhard et al., 2012; Stiff et al., 1989). So, while a politician has strong incentives to hide cues of deceptiveness, less knowledgeable voters may be increasingly likely to rely on ineffectual cues to judge politicians' truthfulness. On the other hand, voters who are more knowledgeable about politics may be more confident in their own ability to spot political lies, and thus they would be less reliant on cues.

However, we should note that an assumption underlying our study is that voters actually care whether politicians are lying to them, though we admit some evidence to the contrary. In addition to blatant deception, self-deception of both political leaders and the public is a common phenomenon in democratic politics (Cowen, 2005; Galeotti, 2015). Furthermore, inflated language (such as misrepresentation and cheap talk) naturally arises in any communication with an informed sender and an uninformed receiver due to incomplete information available to the latter (Kartik, 2009; Kartik & Weelden, 2019)—a description that can be applied to virtually every political campaign. If deceptive behavior is a norm rather than a deviation, politicians may not suffer much when their more routine lies are revealed.

Our main hypotheses, informed by the literature of deception detection presented above, are as follows:

H1 (Truth Bias): Respondents exhibit a truth bias in their assessments.

H2 (Deception Detection Accuracy): Respondents can assess politicians' lies with accuracy significantly above 50%.

H3 (Detection Cues): The reported use of verbal cues increases accuracy at deception detection. The reported use of paraverbal cues, nonverbal cues, and general demeanor cues does not increase accuracy.

Of course, as we have discussed, theories of deception detection may not apply to politics due to the unique dynamic between politicians and voters.

We also use this opportunity to test a few hypotheses that are more specific to our political context. In general, we know that the accuracy of veracity judgments improves once peoples' situational familiarity increases (Reinhard et al., 2011;

Reinhard et al., 2012; Stiff et al., 1989). We expect that those who are more informed about politics or pay more attention to politics to be more confident about assessing politicians' veracity—and to be better at it.

H4 (Confidence): The confidence respondents have in their own assessments is a positive predictor of detection accuracy.

H5 (Political Interest): Greater political interest is associated with greater detection accuracy.

Finally, two recent studies (Houser et al., 2016; Mattes & Redlawsk, 2014) find that voters will make sub-optimal voting choices (e.g., vote for candidates with less favorable policy positions) if they face even a small probability of deception by the candidate(s). In other words, the mere possibility that candidates could be lying to them can greatly impair voters' ability to assess candidates. In this case, we would expect that voters who are more cynical about politicians would be less able to determine whether specific politicians are lying to them.

H6 (Suboptimal Choice): Cynicism about the trustworthiness of politicians is negatively associated with detection accuracy.

Research Design

To test these hypotheses, we distributed an original survey to two samples of adults (in February 2018 and March 2020), during which respondents were shown twelve videos of either politicians running for office or being interviewed about their jobs. Participants were informed these politicians may or may not be lying. After each video, we asked the respondents to (1) judge whether the politician was being truthful or deceptive, and (2) report their confidence level in each judgment.

Stimuli

In our videos, the politician's potentially truthful/deceptive statement is presented with some contextual detail. The videos average 16 s in length, with a range from 10 to 27 s. Since we focus in-depth on cues of political deception, our videos are long enough to provide respondents with ample time for detecting such cues, but not long enough to induce respondent fatigue nor overwhelm them with excessive details. Other than editing video length and removing graphics identifying the media sources (e.g., logos), we kept the videos in their original state; the content of statements, intonations, and behavior of politicians were unaltered.

We only included live speeches as opposed to taped speeches or advertisements, as the latter two would allow politicians to edit out or reshoot portions where they looked nervous, for instance. We intentionally chose videos of politicians who would be relatively unknown to our respondents to minimize the chances that the respondent already held a strong attitude toward the politician or already knew whether the statement was true. As further explained below, if a participant believed that they were familiar with a given politician, their responses regarding that politician were excluded.

We balanced our videos by the politicians' gender and the truthfulness/deceptiveness of their statements. To exclude a possibility of a racial bias based on respondents' own characteristics, we showed them videos of only white politicians. Six of the politicians were male, six were female, and three of each gender were being truthful. Of course, many would say that truth in politics can be subjective. To address this concern, we only chose video clips where the statement had been fact-checked by a reputable independent source. In some instances, we relied on state and local fact-checkers that were affiliated with major broadcasters such as NBC and NPR. In such cases, the facts were cross-checked in several reputable national news outlets. To qualify, the statements had to be decisively judged as truthful or deceitful by the fact-checker—for instance, rated “Pants on Fire” by *PolitiFact* or awarded at least two Pinocchios by the *Washington Post*. This limited the number of statements available to us, because fact-checks tend to be focus predominantly on national politics, for which the major players are well-known.

We classify the videos by three categories of statements: politicians talking about themselves, about their opponents, or about other relevant facts.³ We defined statements about relevant facts to be those which did not have a politician as the target. For example, one falsely claimed that, in the previous year, 307,000 veterans had died waiting for health care. Appendix Tables 2 and 3 summarize the videos in our study and provide links to the videos and fact-checks.

However, we opted not to balance our selection in terms of politicians' partisanship; eight of our twelve politicians are Democrats. Partisanship bias influences people's veracity judgments, especially for polarizing topics (Woon, 2017). In contrast, we are interested in knowing what underlying factors influence people's perception of political deception independent of their partisanship; this assessment is especially important in primaries and nonpartisan contests. We carefully selected videos without overt partisan cues (such as party names and appeals to ideology or policies endorsed predominantly by either Democrats or Republicans). Our attempt at nonpartisanship was ultimately successful, as respondents did not assess politicians from their own party as more truthful, nor the opposing party as more deceptive.

Participants

Participants in Sample 1 were 181 students recruited in February 2018 from the Psychology Department online participant pool at Florida International University, which is administered via Sona Systems.⁴ We distributed our approximately 30-min survey online using Qualtrics. For compensation, participants received research credit in a psychology course. The study description indicated the study involved deception detection, and that only students who were U.S. citizens over the age of

³ We did our best to balance the videos by these topics, but we were limited by the availability of fact-checks for each category. Specifically, we could not find a good example of a female politician lying about herself.

⁴ At various points in the survey, we included four attention questions, each of which had an obviously correct answer. We excluded respondents who answered more than one of the four questions incorrectly.

18 were eligible to participate. Subjects' median age was 21. Thirteen percent of our respondents were male, and 87% were female. This gender disparity is typical of psychology studies at our institution. We did not find any evidence that it affected the nature of our results: for instance, both men and women rated the female politicians as less deceptive. Additionally, because of the specifics of the university in which we conducted our research, most of our respondents identified as Hispanic/Latinx (72.5%), with White and Black respondents following in almost the same numbers (11 and 12 percent respectively). Asian Americans and others constituted less than 5 percent of our sample. In terms of partisanship, 61% of our respondents were Democrats, 20% Republicans, and 19% Independents.

Participants in Sample 2 were 180 people recruited in March 2020 through Amazon's Mechanical Turk Service with a HIT that requested participation in a study to understand how people detect deceptive statements from politicians. They were paid \$1 for their time, through Amazon's MTurk service. Participants were required to be U.S. citizens 18 years of age or older. After clicking on the HIT, they were directed to a copy of the Qualtrics survey used for Sample 1; it had the same questions but included MTurk integration. Subjects' mean age was 34. Fifty-seven percent of our subjects were male, 42% were female, and 1% chose not to answer. Our respondents were 67% White, 17% Black, 7% Asian, and 7% Hispanic/Latinx; others constituted 2% of our sample. Regarding partisanship, 41% of our respondents were Democrats, 27% Republicans, and 32% Independents.

Procedure

Upon entering the study, respondents were asked to first complete a brief questionnaire gathering information on demographics and political interest. Next, we presented them with a series of brief videos of politicians making statements in various contexts (e.g., debates, TV interviews); the order of the videos was randomized across participants. For each video, respondents were required to choose whether the politician was being truthful or deceptive. We told them that "in some videos the speaker will be stating something that is true, in others the speaker will be stating something that is not true, i.e., being deceptive. After each video you will be asked if you believe the speaker was being truthful or deceptive." Though there were thirteen videos in total, we explained that the first was a "practice round" to get a sense of the task. Data from the practice round are not included in the analysis.

After each video, we also asked participants to rate their confidence in their veracity assessment. Finally, we asked if they knew the politician in the video, with three choices: "No", "Yes", and "Yes, but don't remember the name." Respondents who answered "Yes" were asked the politician's name as a follow-up. Interestingly, most people who submitted a name were wrong: only 23% were correct. Nevertheless, we took the precautionary approach of excluding all data from a video whenever the respondent chose "Yes" or "Yes, but don't remember the name." Overall, about 8% of our video-specific data were excluded by this criterion.

After watching all the videos, respondents were asked how difficult they perceived the task to be overall. Then, we administered a questionnaire asking the extent to which respondents used specific verbal, nonverbal, paraverbal, and general demeanor cues when assessing the honesty of the politicians. Finally, we asked questions about political attitudes and behavior, such as voting history, party identification, and the trustworthiness of politicians. As we were primarily interested in responses to the videos, we asked these questions post-treatment in order to prevent the latter from priming attitudes that could affect our respondents' deception detection. For example, we were concerned that respondents, especially those who were well-versed in political issues, might be primed to think about politicians in the videos in partisan terms or to search for partisan cues.

Design and Variables

The study employed a 2 (statement veracity: truth vs. lie) $\times$ 2 (politician gender: male vs. female) within-subjects design, with three video stimuli presented in each of the four cells. As such, all participants viewed 12 videos.

For testing H1 (Truth Bias), our dependent variable is the respondent's binary assessment of whether the speaker was telling the truth (coded 1) or being deceptive (coded 0). Using both full and partial samples, we conduct a series of binomial and proportional tests for significant differences from 50% and significant differences across genders (respondents and candidates). For H2 (Deception Detection Accuracy), we use a binary dependent variable for the veracity assessments, indicating whether the respondent was correct [1] or incorrect [0]. We conduct a binomial test for a significant difference from 50%.

For testing our remaining four hypotheses, we conduct a logistic regression, again using the binary dependent variable indicating whether the respondent was correct [1] or incorrect [0]. We include both video-level, respondent-level, and individual choice-level independent variables. Our individual choice-level variables include the nature of each video assessment ("truthful" [1] or "deceptive" [0]) and respondents' self-assessed confidence in each of their judgments. Confidence is measured on a scale from 0 to 100.

For the videos, we use a binary variable for the politicians' gender (with female coded 1). The baseline video topic is a politician talking about oneself, and so we include a dummy variable for talking about the opponent and another for talking about (other) facts. We also include a binary variable indicating whether the politician's party affiliation matched the respondent's party identification.

Our respondent-level variables include gender (binary, with female coded 1), political interest, measured on a 5-point scale from "not interested at all" [1] to "extremely interested" [5] and frequency of political discussion, also measured on a 5-point scale and ranges from "never" [1] to "every day" [5]. Respondents were asked how frequently politicians lie, which is measured on a five-point scale from "never" [1] to "always" [5]. On a 5-point scale, we asked whether, if a candidate tells a lie in a political ad, it would be "very easy" [1] to "very hard" [5] for them

Fig. 1 Percentage of respondents using specific cues for deception detection. Error bars represent 95% confidence intervals

to find out. We also assessed respondents' perceptions of the task difficulty via a 5-point scale from "very easy" [1] to "very difficult" [5].

As mentioned above, we asked respondents about which behavioral cues they had used to make their decisions. We listed fourteen different cues and asked whether each was influential, using a 5-point scale from "not at all influential" to "extremely influential." We categorized each of the cues as either verbal, nonverbal, paraverbal, or general demeanor. We then created equal-weighted indices for each category, across both samples, as follows: verbal cues (speech content, amount of detail; Cronbach's scale reliability in our data was $\alpha=0.64$), nonverbal cues (eye movements, fidgeting, facial expressions; $\alpha=0.83$), paraverbal cues (hesitations, errors, certainty, voice pitch; $\alpha=0.79$, and general demeanor cues (calmness, confidence, nervousness, seems guilty, seems to be thinking hard; $\alpha=0.82$). The much-lower scale reliability of the verbal category led us to separate the two cues in the regression analysis we report later. Figure 1 below indicates the percentage of respondents, across both samples, indicating that a given cue was very influential (i.e., 4 or 5 on the 5-point scale). Both of our verbal cues—speech content and level of detail—are among the four most-used. Three of the four least-used cues are general demeanor cues—seems guilty, nervousness, and calmness.⁵

⁵ Replication codes and data are available at the Political Behavior Dataverse or at the following address: <https://doi.org/10.7910/DVN/ESGRRS>.

Results

Party Affiliation

After excluding cases where respondents knew the person speaking in the video, we were left with data for 3812 decisions; going forward, we report our combined results across both samples, as the hypothesis tests and other results were very similar.⁶ Because two-thirds of the politicians in the videos were Democrats, we tested whether the truth assessments depended on the party affiliation of the respondent, again across both samples. As mentioned above, we had taken precautions to conceal the partisanship of our politicians. For each decision, we created a binary variable indicating whether the politician's party affiliation matched the respondents' party identification. If respondents were aware of a politician's party (e.g., based on the content of the statement, participants might infer a party affiliation), they might judge in-party politicians as more honest and out-party politicians as more deceitful. In our data, respondents judged in-party politicians' statements as truthful 57.0% of the time, and out-party politicians' statements as truthful 55.0% of the time. This difference in proportions was not statistically significant ($z = 1.29$, $p = 0.197$). Thus, we have evidence that the politicians' party affiliation did not greatly affect respondents' assessments of the politicians' veracity, likely because the speakers were unfamiliar to the respondents and the issues discussed in the videos were relatively non-partisan.

Truth Bias

The respondents' assessments show they believed the speakers were telling the truth 56.0% of the time, supporting H1 (Truth Bias), as this is significantly different from 50% (binomial, $p < 0.001$). However, when we separate by the politicians' gender, we find a truth bias exists only for female politicians (binomial, $p < 0.001$), who were judged as truthful 60.0% of the time. The difference between this and the assessments of male politicians, who were judged truthful 51.9% of the time, is highly significant ($z = 5.06$, $p < 0.001$). Both female (59.3%) and male respondents (61.4%) hold a truth bias for female politicians.⁷

Respondents were slightly more confident in their assessments of truth as compared to their assessments of lies. The mean confidence level for respondents giving truth assessments was 63.8, as compared to 60.7 for lies, and this difference is significant ($t = 4.17$, $p < 0.001$). Respondents also perceived differences in honesty that depended upon the topic of the video, though these did not reach statistical significance. Statements the politicians made about themselves were judged truthful 54.1%

⁶ The one difference is apparent in our logistic regression. The verbal details cue, a significant predictor of accuracy, has the correct sign but does not meet the traditional threshold of significance in either Sample 1 ($p = .117$) or Sample 2 ($p = .058$).

⁷ When judging male speakers, male respondents had a truth bias (57.3%), while female respondents (49.4%) did not.

of the time, as compared to statements about the opponent (55.4%) and statements of fact (58.1%; $\chi^2=3.77$; $p=0.152$). Near the end of the study, we asked respondents whether politicians lie more often about themselves, their opponents, or facts. Here, 31.6% said politicians lie more about themselves, as compared to opponents (30.8%), facts (29.0%) or something else (8.7%). We find these results to be a little surprising, since we expected a more dubious assessment of negative campaigns. However, our respondents may be correct, at least from a real-world perspective. Geer (2006) explains that in advertisements, politicians do tend to lie about themselves more than about their opponents; furthermore, negative campaigns often refer to sources, while positive campaigns do not.

Deception Detection Accuracy

Were the respondents able to detect deception? After excluding data as explained above, the politician was telling the truth 48.9% of the time.⁸ Our respondents' judgments were correct 52.4% of the time, which was better than pure chance (binomial, $p=0.003$).^{9,10} Though this supports H2 (Accuracy), it is difficult to determine whether this conclusively represents an ability to detect politicians' lies. Instead, it could reflect a trace amount of respondents' prior knowledge that we were unable to eliminate by controlling for their recognition.

Logistic Regression

Next, we conducted a multivariate logistic regression with respondents' accuracy as the dependent variable. We include independent variables measuring the frequency of using verbal, nonverbal, paraverbal, and general demeanor cues. Since respondents varied in their confidence for true and false statements, we chose to interact each judgment with the respondent's confidence in that judgment. Results are shown in Table 1.

In our first model, shown in the left-hand column of Table 1, we find no significant effect for verbal, nonverbal, or paraverbal cue usage. In our second model (right-hand column), we separated the two verbal cues (speech content and amount of detail), primarily because of the low reliability of the resultant verbal scale. We also ran the latter model including an indicator variable for the sample, but it was insignificant ($p=0.423$). We focus on the second model in our analysis below.

⁸ The percentage of truth-telling politicians varied little by the gender of the politician (48.3% for male and 49.4% for female).

⁹ Separating the videos by topic (self, opponent, or facts), we find that people were most accurate in judging candidates' statements of fact (58.2% correct) as opposed to candidates' statements about themselves (45.5%) or their opponents (52.0%). We include this for descriptive reasons, though we caution against reading much into this, primarily because our sample had only one video in which a candidate was lying about himself. Instead, we will simply use video topic as a control in the upcoming multivariate analysis of respondents' accuracy.

¹⁰ For 8 of the 12 videos, the majority of respondents were accurate, though this is not significantly different from pure chance (50%).

Table 1 Explaining accuracy of respondents' deception detection (logistic regression)

	Correct judgment (DV)	se	Correct judgment (DV)	se
Verbal cues	0.04	(0.03)	–	
Level of detail	–		0.08**	(0.03)
Content of speech	–		– 0.03	(0.03)
General demeanor cues	– 0.10**	(0.05)	– 0.10**	(0.05)
Nonverbal cues	0.02	(0.04)	0.01	(0.04)
Paraverbal cues	0.04	(0.05)	0.03	(0.04)
Confidence	0.01***	(0.00)	0.01***	(0.00)
Judgment: truth	0.81***	(0.14)	0.81***	(0.14)
Judgment × confidence	– 0.02***	(0.00)	– 0.02***	(0.00)
Statement about opponent	0.27***	(0.09)	0.27***	(0.09)
Statement about facts	0.54***	(0.10)	0.54***	(0.10)
Female respondent	0.03	(0.07)	0.03	(0.07)
Female candidate	– 0.06	(0.07)	– 0.06	(0.07)
Party/party ID match	0.03	(0.06)	0.03	(0.06)
Discuss politics	0.00	(0.03)	0.01	(0.03)
Political interest	0.01	(0.03)	0.00	(0.03)
Difficulty of task	0.05*	(0.03)	0.05*	(0.03)
Need others to point out lies	– 0.02	(0.03)	– 0.01	(0.03)
Politicians lie often	– 0.04	(0.05)	– 0.03	(0.05)
Constant	– 0.65**	(0.29)	– 0.62**	(0.30)
N	3812		3812	

Logit coefficients are shown with standard errors in parentheses, rounded to two decimal places. The standard errors are clustered by the individual respondent

* $p < 0.10$

** $p < 0.05$

*** $p < 0.01$

Fig. 2 Predictive margins by deceptive/truthful judgment and confidence in judgment

We find partial support for H3 (Detection Cues), as one of the verbal cues (the amount of detail) is positively associated with successful lie detection ($p=0.020$). On the other hand, speech content has no significant effect. In support of H3, there were no significant effects for paraverbal and nonverbal cues. Finally, increased reliance on general demeanor cues (e.g., confidence, nervousness) is related to detection *failure* ($p=0.032$).

Regarding H4 (Confidence), we find that confidence, in general, is associated with increased detection accuracy. But we also find that this relationship is more nuanced than our hypothesis predicted, as we find a significant interactive relationship between respondents' judgments (true or false) and their confidence in those judgments. This can be seen in Fig. 2. At the lowest levels of confidence, respondents' judgments of truth are significantly more accurate than their judgments of deceit; the gap is nearly 20 percentage points. However, the relationship changes as respondents become more confident. The accuracy of truth judgments declines with confidence, while the accuracy of deceit judgments climbs with confidence. As a result, at the highest levels of confidence, the relationship is completely reversed: respondents' judgments of deceit are significantly more accurate than their judgments of truth.

The respondents' political interest has no impact on lie detection capability in our study, nor does the frequency of political discussion, which is evidence against H5 (Political Interest). Those who thought the task was harder fare slightly better ($p=0.068$). Finally, we do not find that cynicism is an impediment to lie detection, as respondents who believe that politicians lie frequently were just as accurate as respondents who were more trusting; thus, we do not find support for H6 (Suboptimal Choice).

Discussion

In this paper, we improve our understanding of voters' decision making in situations when politicians might be lying to them, which has important implications for both voters' candidate preferences and voters' ability to accurately identify and select honest politicians. In search of a truth bias, we instead find some nuance, in that female politicians are more likely than male politicians to be perceived as telling the truth. Both male and female respondents are more likely to believe the women. Our results comport with previous literature suggesting that female politicians are perceived as more trustworthy than their male counterparts (e.g., Carroll, 1994). Considering that implicit sexism—where women are thought unsuited for political offices because they are too soft, irrational, and incompetent—is all too common among voters (Lawless, 2009; Milyo & Schosberg, 2000; Schaffner et al., 2018), this gender-based truth bias creates a slight advantage for women, though it is by no means enough to level the playing field.

Of course, our sample is not a representative sample of U.S. voters, and our politicians were all from the U.S. Since our results are primarily a descriptive analysis of the judgments of our respondents to the environment in which they were participating, generalizability has some limitations. Amazon's Mechanical Turk subjects have been found to be more representative of the general population than other commonly

used convenience samples, and their responses to stimuli are consistent with extant research (Berinsky, et al., 2012).

As expected, we find that people are not very effective at detecting politicians' lies. However, people who used the amount of detail in the politicians' statements performed better than those using other types of cues, even though the politicians' statements we used had little variability in length. This is especially noteworthy because the amount of detail is perhaps the most discriminating and well-studied cue in the deception detection literature (e.g., DePaulo et al., 2003; Luke, 2019), and despite the inherent uniqueness of political settings, it also proved useful in detecting lies of politicians. On the other hand, we should not overstate the usefulness of verbal cues, because even though focusing on speech details helps somewhat, the overall lack of effectiveness suggests that voters simply need better cues.

Currently, voters need to look elsewhere (i.e., not internally) for help in lie detection. The most credible sources for this type of monitoring are the political fact-checkers, which as we noted earlier, are a subject of much recent literature. Much of that research focuses on the conditions in which fact-checks can effectively counter misinformation; less is known about the extent to which voters are interested in seeking out such fact-checks (but see Mattes & Redlawsk, 2020). Most fact-check organizations are affiliated with traditional media, and trust in the media is not exactly robust. Furthermore, Cooper (2012) notes that partisans regularly defend their own politicians by questioning the accuracy of the fact-checkers. This turns the accuracy of fact-checks into yet another partisan disagreement; fact-checks that support my candidate are clearly correct, but fact-checks opposing my candidate are false, biased, and partisan. If fact-checking itself is called into question, then voters would be far less interested in and much less likely to be swayed by it. Indeed, in an age of "fake news," fact-checks usually fail to reach news consumers (Guess et al., 2017). To avoid this, we would suggest that fact-checkers who wish to gain credibility and have more impact (as opposed to page views) should focus less attention on polarizing figures such as Donald Trump and place more emphasis on elections with a higher percentage of undecided voters, such as in the early stages of political primaries. This interplay between fact-checking and partisanship is particularly interesting in the context of American politics. Partisanship can explain why individuals would reject negative fact-checks on politicians from their own parties, but how do voters decide on the credibility of politicians' statements when partisanship does not provide much of an explanatory ground—such as in primaries, when all politicians are from the same party? The results of our study suggest that in such cases voters are better off relying on verbal cues.

Perhaps there will eventually be better options. A fairly recent wave of research, which focuses on maximizing the differences between liars' and truth-tellers' behaviors, may indeed be the best way to improve deception detection. This research is based in the cognitive approach to lie detection (which can be contrasted with the more emotional approach, that assumes liars feel anxious and guilty, alluded to earlier). The cognitive approach starts with the fact that lying is more cognitively difficult than telling the truth (Vrij, 2008). While truth-tellers simply have to reflect on their own experiences, memories, and beliefs and report them as they are, liars must attempt to inhibit the truth, create a lie (or remember a prepared lie), keep track of what they said to who and keep their story consistent,

engage in impression management, and monitor others' reactions to their statement. Various methods for taking advantage of the differential cognitive load faced by liars and truth-tellers have been proposed and tested with a fair bit of success (Vrij et al., 2017). However, these interventions (e.g., providing a model statement that demonstrates the level of detail that should ideally be provided; requesting a story in reverse chronological order; asking unanticipated questions) require direct access to the target at the time that they provide their statement. As such, there are few contexts in which politicians may be subjected to them. Perhaps it is possible to organize political debates such that politicians are more accountable, but even then, it would only help citizens when elections are imminent. Predominately, citizens are left to rely on their intuitive lie detection when evaluating the trustworthiness of politicians' statements, and as we have shown, they are not particularly good at doing so, even when they are not blinded by partisanship.

Appendix

See Tables 2 and 3

Table 2 Video Stimuli

Politician	Type of truth/lie	PID	Gender	Length, sec	Topic
Truth					
Katherine Hannaway	Opponent	R	F	26	The opponent's main campaign contributor sexually abused a woman
Bruce Rauner	Opponent	R	M	12	His opponent supports his views that the state's workers' compensation system needs to be reformed
Kay Hagan	Self	D	F	10	She was named the most moderate senator in the country by a national non-partisan journal
Andrew Cuomo ^a	Self	D	M	12	His budget allocates more financial support for religious schools than ever before in the history
Jerry Brown	Facts	D	M	18	2.1 million jobs were created in the state during the time of his governance
Dianne Feinstein	Facts	D	F	10	40 million Californians use the same water infrastructure that was built for 16 million people
Lies					
Todd Young	Opponent	R	M	10	His opponent voted four times to increase taxes on social security benefits and extend the latter to illegal immigrants
Shelley Adler	Opponent	D	F	27	Her opponent voted to allow insurance companies to deny women's access to birth control and preventive care, to cut off cancer screening for women, and to re-define rape
Doug Jones	Opponent	D	M	11	His opponent voted to get the federal government out of health care altogether
Kolin Van Ostern	Self	D	M	15	He cast the deciding vote on extended Medicaid for 50,000 Americans
Loretta Sanchez	Facts	D	F	21	Proposition #57 on gun control lets people out of jail free for gun spread, drive-by shooting, and discharges of guns on school yards
Carly Fiorina	Facts	R	F	21	A Veteran Affairs reports said that 307,000 veterans died in last year waiting for health care

Links to the candidate videos and associated fact-checks are provided in Appendix Table 3

^aDue to his COVID-19 updates, Cuomo had become more well-known nationally when we ran Study 2. As a result, we had to exclude over half of the respondents' judgments about his video, because they had recognized him.

Table 3 Links to all videos and fact-checks

Truth	Politician	Fact-check
	Katherine Hannaway	<p>Fact check: https://www.komu.com/news/target-8-fact-checks-the-gop-gubernatorial-debate/article_a3155023-f6bb-50dd-9935-e09da9521ec1.html (NBC/CW + affiliated television station in Missouri) Video: https://www.youtube.com/watch?v=_3kCHpxjHk (30:33–31:20)</p> <p>Cross check: https://www.kcur.org/post/missouri-gop-contenders-governor-mince-no-words-during-heated-debate (cites NPR) https://news.slpulicradio.org/post/missouri-contest-governor-roiled-lawsuit-against-greitens-donor-alleging-sexual-abuse#stream/0 (cites NPR) https://www.bloomberg.com/news/articles/2019-09-19/venture-capitalist-defeats-sex-abuse-suit-after-three-year-fight https://www.washingtonpost.com/news/the-switch/wp/2016/03/14/prominent-silicon-valley-investor-denies-he-kept-a-sex-slave-for-13-years/ https://themissouritimes.com/27745/hanaway-questions-ties-greitens-embattled-venture-capitalist/</p> <p>Fact check and video: https://www.politifact.com/illinois/statements/2016/oct/03/bruce-rauner/bruce-rauner-pits-father-against-daughter-illinois/</p> <p>Fact-check: https://www.wral.com/fact-check-does-hagan-vote-with-obama-95-percent-of-the-time-/13930106/ https://www.wral.com/us-senate-debate-produces-some-questionable-claims/13948543/ (NBC affiliated television station in North Carolina) Video: https://www.c-span.org/video/?321893-1/north-carolina-senate-debate&start=1321 (22:22–22:32)</p> <p>Cross check: https://www.charlotteobserver.com/news/politics-government/article9095351.html https://www.theatlantic.com/politics/archive/2014/02/the-most-polarized-congress-ever-2013-congressional-vote-ratings/283635/ https://www.nationaljournal.com/s/65685/most-divided-congress-ever-least-until-next-year?mref=mos_1 https://ballotpedia.org/National_Journal_vote_ratings</p>
	Bruce Rauner	
	Kay Hagan	
	Andrew Cuomo	<p>Fact check: https://www.politifact.com/new-york/statements/2017/mar/06/andrew-cuomo/cuomo-budget-includes-more-money-private-schools- Video: https://www.youtube.com/watch?v=7VMUdOq0W2E (14:45–14:57)</p>

Table 3 (continued)

	Politician	Fact-check
Lies	Jerry Brown	Fact check: https://www.politifact.com/california/statements/2017/mar/29/jerry-brown/fact-checking-jerry-browns-claim-california-has-cr/ Video: https://www.nbcnews.com/meet-the-press/video/full-brown-interview-you-don-t-want-to-mess-with-california-90502355599_01-16-01:36
	Dianne Feinstein	Fact check and video: https://www.politifact.com/california/statements/2016/may/31/dianne-feinstein/does-california-have-same-water-infrastructure-it/
	Todd Young	Fact check and video: https://www.wthr.com/article/believe-it-or-not-fact-checking-the-debate-for-us-senate-evan-bayh-todd-young (NBC affiliated television station in Indiana) Archived version: http://web.archive.org/web/20161101035504if_/http://www.wthr.com/article/believe-it-or-not-fact-checking-the-debate-for-us-senate-evan-bayh-todd-young
		Cross check: https://www.wthr.com/article/believe-it-or-not-young-ad-accuses-bayh-of-failing-to-protect-seniors https://www.senate.gov/legislative/LIS/roll_call_lists/roll_call_vote_cfm?congress=110&session=1&vote=00263
	Shelley Adler	Fact check and video: https://www.politifact.com/new-jersey/statements/2012/oct/18/shelley-adler/shelley-adler-claims-jon-runyan-voted-redefine-rap/
	Doug Jones	Fact check and video: https://www.politifact.com/truth-o-meter/statements/2017/oct/26/doug-jones/does-roy-moore-want-end-medicare-and-medicare-his/
	Kolin Van Ostern	Fact check and video: https://www.politifact.com/new-hampshire/statements/2016/sep/08/colin-van-ostern/was-colin-van-ostern-deciding-vote-medicare-expans/
	Loretta Sanchez	Fact check and video: https://www.politifact.com/california/statements/2016/oct/07/loretta-sanchez/loretta-sanchez-misleads-prop-57-claim/
	Carly Fiorina	Fact check: https://www.washingtonpost.com/news/fact-checker/wp/2015/09/21/carly-fiorinas-claim-that-307000-veterans-died-waiting-for-health-care/ https://www.factcheck.org/2015/09/fiorinas-unreported-claim-about-va-deaths/ Video: https://www.c-span.org/video/?328087-1/carly-fiorina-remarks-chichester-hampshire (23:45–24:02)

References

- Adorno, T.W. (2005). *Minima Moralia: Reflections on a Damaged Life*, tran. E. F. N. Jephcott. London: Verso.
- Armstrong-Taylor, P. (2012). When do politicians lie? *The Berkeley Electronic Journal of Economic Analysis & Policy*, 13(3), 1–28.
- Austen-Smith, D. (1992). Strategic models of talk in political decision making. *International Political Science Review*, 13(1), 45–58.
- Battigalli, P., Charness, G., & Dufwenberg, M. (2013). Deception: The role of guilt. *Journal of Economic Behavior & Organization*, 93, 227–232.
- Berinsky, A. J. (2017). Rumors and health care reform: Experiments in political misinformation. *British Journal of Political Science*, 47(2), 241–262.
- Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk. *Political Analysis*, 20, 351–368.
- Bond, C. F., Jr., & DePaulo, B. (2006). Accuracy of deception judgments. *Personality and Social Psychology Review*, 10, 214–234.
- Buccioli, A., & Zarri, L. (2013) Lying in Politics: Evidence from the US. *University of Verona Department of Economics Working Paper Series*. Retrieved from <http://leonardo3.dse.univr.it/home/workpapers/wp2013n22.pdf>.
- Callander, S., & Willkie, S. (2007). Lies, damned lies, and political campaigns. *Games and Economic Behavior*, 60(2), 262–286.
- Cappella, J. N., & Jamieson, K. (1997). *Spiral of Cynicism: The Press and the Public Good*. Oxford University Press.
- Carpini, M. X. D., & Keeter, S. (1996). *What Americans know about Politics and Why it Matters*. Yale University Press.
- Carroll, S. J. (1994). *Women as Candidates in American Politics* (2nd ed.). Indiana University Press.
- Caselli, F., & Morelli, M. (2004). Bad politicians. *Journal of Public Economics*, 88(3), 759–782.
- Charness, G., & Dufwenberg, M. (2006). Promises and partnership. *Econometrica*, 74(6), 1579–1601.
- Converse, P. E. (1964). The nature of belief systems in mass publics. In D. E. Apter (Ed.), *Ideology and discontent*. New York: Free Press.
- Cooper, M. (2012). *Campaigns play loose with truth in a fact-check age*. The New York Times.
- Corazzini, L., Kube, S., Maréchal, M. A., & Nicolo, A. (2014). Elections and deceptions: an experimental study on the behavioral effects of democracy. *American Journal of Political Science*, 58(3), 579–592.
- Cowen, T. (2005). Self-deception as the root of political failure. *Public Choice*, 124, 437–451.
- Davis, M. L., & Ferrantino, M. (1996). Towards a positive theory of political rhetoric: Why do politicians lie? *Public Choice*, 88(1–2), 1–13.
- DePaulo, B. M., Lindsay, J., Malone, B. E., Muhlenbruck, L., Charlton, K., & Cooper, H. (2003). Cues to deception. *Psychological Bulletin*, 129, 74–118.
- Fridkin, K., Kenney, P., & Wintersieck, A. (2015). Liar, liar, pants on fire: How fact-checking influences citizens' reactions to negative advertising. *Political Communication*, 32(1), 127–151.
- Galeotti, A. E. (2015). Liars or self-deceived? *Reflections on Political Deception*. *Political Studies*, 63, 887–902.
- Geer, J. G. (2006). *In defense of negativity: Attack ads in presidential campaigns*. University of Chicago Press.
- Glazer, A. (1990). The strategy of candidate ambiguity. *American Political Science Review*, 84(01), 237–241.
- Global Deception Research Team. (2006). A world of lies. *Journal of Cross-Cultural Psychology*, 37, 60–74.
- Gneezy, U., Rockenbach, B., & Serra-Garcia, M. (2013). Measuring lying aversion. *Journal of Economic Behavior & Organization*, 93, 293–300.
- Gneezy, U. (2005). Deception: The role of consequences. *The American Economic Review*, 95(1), 384–394.
- Guess, A., Nyhan, B., & Reifler, J. (2017). Selective exposure to misinformation: Evidence from the consumption of fake news during the 2016 US presidential campaign. *European Research Council*. Retrieved from <http://www.dartmouth.edu/~nyhan/fake-news-2016.pdf>

- Hartwig, M., & Bond, C. F., Jr. (2011). Why do lie-catchers fail? A lens model meta-analysis of human lie judgments. *Psychological Bulletin*, 137(4), 643–659. <https://doi.org/10.1037/a0023589>
- Hartwig, M., & Granhag, P. A. (2015). Exploring the nature and origin of beliefs about deception: Implicit and explicit knowledge among lay people and resumed experts. In P. A. Granhag, A. Vrij, & B. Verschuere (Eds.), *Detecting Deception: current challenges and cognitive approaches*. Wiley.
- Houser, D., Ludwig, S., & Stratmann, T. (2016). Deception and political participation: Theory and laboratory evidence. *Economic Inquiry*, 54(1), 464–484.
- Janezic, K. A., & Gallego, A. (2020). Eliciting preferences for truth-telling in a survey of politicians. *Proceedings of the National Academy of Sciences*. <https://doi.org/10.1073/pnas.2008144117>
- Jordan, S., Laure Brimbal, D., Wallace, B., Kassin, S. M., Hartwig, M., & Street, C. N. H. (2019). A test of the micro-expressions training tool: Does it improve lie detection? *Journal of Investigative Psychology and Offender Profiling*, 16(3), 222–235.
- Kartik, N. (2009). Strategic communication with lying costs. *The Review of Economic Studies*, 76(4), 1359–1395.
- Kartik, N., & Van Weelden, R. (2019). Informative cheap talk in elections. *The Review of Economic Studies*, 86(2), 755–784. <https://doi.org/10.1093/restud/rdy009>.
- Lawless, J. L. (2009). Sexism and gender bias in election 2008: A more complex path for women in politics. *Politics & Gender*, 5(1), 70–80.
- Luke, T. (2019). Lessons from Pinocchio: Cues to deception may be highly exaggerated. *Perspectives on Psychological Science*, 14, 646–671.
- Mattes, K., & Redlawsk, D. P. (2014). *The positive case for negative campaigning*. The University of Chicago Press.
- Mattes, K., & Redlawsk, D. P. (2020). Voluntary exposure to political fact-checks. *Journalism and Mass Communication Quarterly*, 97(4), 919–935.
- Meissner, C. A., & Kassin, S. M. (2002). “He’s guilty!”: Investigator bias in judgments of truth and deception. *Law and Human Behavior*, 26(5), 469–480.
- Milyo, J., & Schosberg, S. (2000). Gender bias and selection bias in House elections. *Public Choice*, 105(1–2), 41–59.
- Minozzi, W. (2011). A Jamming Theory of Politics. *The Journal of Politics*, 73(2), 301–315.
- Minozzi, W., & Woon, J. (2016). Competition, preference uncertainty, and jamming: A strategic communication experiment. *Games and Economic Behavior*, 96, 97–114.
- Pfiffner, J. P. (1999). The contemporary presidency: presidential lies. *Presidential Studies Quarterly*, 29(4), 903–917.
- Plato. (1901). *The Republic tran. Benjamin Jowett*. New York: Wiley.
- Reinhard, M. A., Scharmach, M., & Sporer, S. L. (2012). Situational familiarity, efficacy expectations, and the process of credibility attribution. *Basic and Applied Social Psychology*, 34(2), 107–127.
- Reinhard, M. A., Sporer, S. L., Scharmach, M., & Marksteiner, T. (2011). Listening, Not Watching: Situational Familiarity and the Ability to Detect Deception. *Journal of Personality and Social Psychology*, 101(3), 467–484.
- Rossini, N., et al. (2011). Deception cues in political speeches verbal and non-verbal traits of prevarication. In A. Esposito (Ed.), *Communication and Enactment 2010, LNCS 6800* (pp. 406–418). Berlin: Springer.
- Schaffner, B. F., MacWilliams, M., & Nteta, T. (2018). Understanding White Polarization in the 2016 vote for president: The sobering role of racism and sexism. *Political Science Quarterly*, 133(1), 9–34.
- Schnakenberg, K. E. (2016). Directional cheap talk in electoral campaigns. *The Journal of Politics*, 78(2), 527–541.
- Semmler, C., Brewer, N., & Douglass, A. B. (2012). Jurors believe eyewitnesses. In B. L. Cutler (Ed.), *Conviction of the innocent: Lessons from psychological research; conviction of the innocent: Lessons from psychological research* (pp. 185–209). Washington: American Psychological Association. <https://doi.org/10.1037/13085-009> Chapter xiv, p. 370.
- Stiff, J. B., Miller, G. R., Sleight, C., Mongeau, P., Garlick, R., & Rogan, R. (1989). Explanations for visual cue primacy in judgments of honesty and deceit. *Journal of Personality and Social Psychology*, 56, 555–564.
- Tenney, E. R., Small, J. E., Kondrad, R. L., Jaswal, V. K., & Spellman, B. A. (2011). Accuracy, confidence, and calibration: How young children and adults assess credibility. *Developmental Psychology*, 47(4), 1065–1077.

- Tomz, M., & Van Houweling, R. P. (2009). The electoral implications of candidate ambiguity. *American Political Science Review*, 103(1), 83–98.
- Vrij, A. (2008). *Detecting lies and deceit: Pitfalls and opportunities* (2nd ed.). New York: Wiley.
- Vrij, A. (2019). Deception and truth detection when analyzing nonverbal and verbal cues. *Applied Cognitive Psychology*, 33, 160–167.
- Vrij, A., Edward, K., & Bull, R. (2001). Police officers' ability to detect deceit: The benefit of indirect deception detection measures. *Legal and Criminological Psychology*, 6(2), 185–196.
- Vrij, A., Fisher, R. P., & Blank, H. (2017). A cognitive approach to lie detection: A meta-analysis. *Legal and Criminological Psychology*, 22(1), 1–21.
- Woon, J. (2017) Political Lie Detection. *Paper prepared for the 2017 Toronto Political Behavior Workshop*. Retrieved from https://sites.pitt.edu/~woon/papers/woon_liedetecion.pdf.
- Woon, J., & Kanthak, K. (2019). Elections, Ability, and Candidate Honesty. *Journal of Economic Behavior and Organization*, 157, 735–753.
- Zaller, J. (1992). *The nature and origins of mass opinion*. Cambridge University Press.

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