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The hidden appeal and aversion to political conspiracies as revealed in the response dynamics of partisans

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ABSTRACT

In this study, we used a mouse-tracking paradigm to capture subtle processing dynamics that may occur when people spontaneously endorse or disavow political conspiracies. Rather than exclusively focus on explicit, endpoint responses, we examined the underlying temptation to respond opposite of what is overtly reported. Our results revealed such tendencies in participants' arm movements as they provided “true” or “false” answers to political conspiracy statements relative to baseline statements. These effects were strongly modulated by whether participants identified with the Republican or Democratic parties. To interpret our findings, we argue that political conspiracies tap into hidden biases that may be at odds with each other, such that, even for nonbelievers of a particular conspiracy, there is an implicit appeal for ideologically-aligned conspiracies driven by motivated reasoning biases, and for believers, an implicit aversion to the same conspiracies driven by accuracy and self-presentation needs.

1. Introduction

Conspiracies espousing Barack Obama's Kenyan birth or George W. Bush's role in orchestrating the terrorist attacks of September 11, 2001 are no longer, if they ever were, exclusively the purview of paranoid individuals wearing tin foil hats. These conspiracies, and others like them, do not simply exist on the ideological fringe, but often find their way into mainstream thinking. By one recent estimate, nearly 50% of respondents in a national survey were found to endorse at least one political conspiracy (Oliver & Wood, 2014). Such widespread appeal suggests that conspiratorial thinking cannot be easily dismissed as a symptom of mass pathology; rather, there is good reason to suspect that conspiratorial thinking taps into normal psychological and social functions (Bost & Prunier, 2013; Sunstein, 2014). Moreover, there is nothing inherently irrational or insidious about these beliefs. What constitutes a conspiracy theory is generally defined as beliefs meant to explain events or processes in reference to powerful agents who operate with secret intent (Bale, 2007; Sunstein & Vermeule, 2009). Indeed, based on this definition, conspiracy theories can eventually be shown to be true. But it is also the case that conspiracy theories fall along a continuum of reasonable to “paranoid-style” thinking (Bale, 2007; Hofstadter, 1965), where suspicions of the powerful are more or less justifiable based on

evidence available to the general public and where truth-values can change based on updated evidence. The harm in conspiratorial thinking comes when the intentions ascribed to those in power become more sinister and resistant to counterevidence (Bost & Prunier, 2013).

Political conspiracies, opposed to other types of conspiracies, are distinguished by their focus on the role of powerful government agents in planning, controlling, and maintaining clandestine activities. They also tend to be what Sunstein and Vermeule (2009) refer to as “self-sealing,” that is, arising and finding justification within particular ideologically-motivated groups that in turn makes it difficult for outsiders to comprehend or challenge. And though not a necessary condition, many political conspiracies reinforce the political views of a group by derogating the views of a rival party (Kahan, Jenkins-Smith, & Braman, 2011; Miller, Saunders, & Farhart, 2015; Uscinski & Parent, 2014). This self-sealing characteristic helps explain why it is possible to predict which political conspiracies people might believe in based on their ideological or partisan identifications. Rather than haphazard, people tend to endorse conspiracies that are consistent with their ideological worldview (Goertzel, 1994) and hold these beliefs tenaciously, though these types of belief can change under some circumstances (Berinsky, 2017; Huang, 2017; Nyhan, Reifler, & Ubel, 2013).

Although endorsing a political conspiracy is often motivated by

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ideological or social identity factors, the appeal is far from absolute. People generally want to hold accurate beliefs (Kunda, 1990), yet political conspiracies, by their very nature, are based on unsubstantiated and often times dubious evidence (Douglas & Sutton, 2008; Kramer, 1998). Believers may understand this inconsistency at some level and experience an internal conflict. For those who eschew political conspiracies, there is also a conflict. Although nonbelievers have satisfied the desire to hold accurate opinions, they are acting against the pull of strong partisan or ideological worldview forces to do otherwise. Thus, many political conspiracies represent a struggle for believers and nonbelievers alike. Nonbelievers struggle with the partisan or ideological appeal of political conspiracies while believers struggle with accuracy and self-presentation biases.

We present an experimental method that taps into the underlying motivations involved in political conspiratorial thinking. We focus on the subtle temptations, often working at a hidden level, that might be involved in disavowing or endorsing political conspiracies. By using the dynamics of decision-making in computer-mouse trajectories, we show that when participants disavow political conspiracies, subtle properties of their decision movements reveal that the conspiracy – as a function of their party identification – may have momentarily tempted them toward endorsement. Likewise, for (the fewer) partisans who explicitly endorse political conspiracies, we also find competing motivations, such that properties of their movements reveal a momentary reluctance to endorse. In other words, our results suggest that conspiracy shapes cognitive processes to such an extent that their effects can be detected in the overt movements of participants, even if they disavow them.

1.1. The attraction and resistance to political conspiratorial thinking

There is a unique complexity to political conspiracy beliefs: at one level they hold a certain appeal as sense-making narratives for political protest, and at another level, there is a repulsion in that they are factually dubious and often associated with negative, exclusionary sentiments. As far as their appeal, there are several contributing cognitive and emotional factors that have come to light in recent years. Such beliefs appear to provide a greater sense of meaning, control, and reduced anxiety, reframing the uncertainty associated with complex and ambiguous events into more familiar and ordered narratives (Furnham, 2013; Miller, 2002; Sunstein, 2014). In the case of political conspiracies, they also provide a means for engaging in protest against perceived abuses of governmental power. This protest allows a greater sense of personal empowerment against larger political-social forces (Bost & Prunier, 2013). For these reasons, conspiratorial thinking taps into a natural protection mechanism against potential threats. However, what constitutes a threat will also vary based on ideological motivations, which tend to be reinforced by, but not necessarily beholden to, one's racial, social, or political group identification (Abalakina Paap, Stephan, Craig, & Gregory, 1999; Kramer & Gavrieli, 2005). This helps explain why people appear to be more predisposed to ideologically-aligned political conspiracies when they identify with the political party out of power (Miller et al., 2015; Uscinski & Parent, 2014; Uscinski, Parent, & Torres, 2011). The increased powerlessness exaggerates potential threats and distrust in government, and in turn, people are more likely to seek out worldview-confirming responses, ignoring or downplaying evidence that is incongruent or insufficient (Miller et al., 2015). Such behavior is consistent with motivated reasoning biases, whereby partisans critically evaluate and counter-argue uncongenial information and uncritically accept arguments that are congruent with partisan values (Lodge & Taber, 2006).

Conversely, for what makes conspiracy theories unattractive, there are equally compelling but aggravating reasons. Because conspiracy theories are not based on overt activities or natural causes for explanation (Douglas & Sutton, 2008), the accuracy of the beliefs, at least from the criteria of scientific reasoning, often cannot be determined. This can violate people's accuracy biases and need for informational

integrity (Kunda, 1990), and in doing so, reinforce a view that conspiracy theories are for those that can be easily manipulated and who are weak-minded (Kramer, 1998; Shermer, 1997). Indeed, when scientific accuracy is held in high esteem, even justifiable conspiratorial thinking is often looked upon with derision (Bale, 2007). The endorsement of a conspiracy theory can call into question a person's judgment, an invitation to not only have one's particular worldview labeled as incorrect (e.g., you're crazy for thinking that) but also one's identity (e.g., you're a kook). Accuracy biases, therefore, intersect with one's self-presentation biases to avoid being seen as paranoid and illogical by others (Leary, 1995), creating a deterrent to endorsement.

It remains an open question as to how the countervailing forces that make political conspiracies both appealing and unappealing will interact when an opportunity to endorse is encountered. No matter the choice, there is likely to be competing, covert influences from the alternative option. For example, nonbelievers of political conspiracies may be tempted by threat protection needs and motivated reasoning biases. If the political conspiracy statement cast the opposing party in a particularly bad light, the implicit appeal might be quite pronounced, even as the nonbeliever ostensibly finds the statement wildly inaccurate. Similarly, for believers of political conspiracies, they may be tempted by accuracy and self-presentation biases. Even if enthusiastically endorsed, an underlying awareness that the conspiracy is inconsistent with other knowledge and values will compete with the explicit response.

1.2. Predictions based on political identification and power differentials

We expect that the strength of the above competition effects to be modulated by party identification (Republican and Democrat). Political parties are social identities (Huddy, Mason, & Aarøe, 2015; Nicholson, 2012) that make up polarized categories (Heit & Nicholson, 2010, 2016), and as has been previously described, act to modulate the cognitive and emotional factors that contribute to the appeal of political conspiracy theories. Thus, we can make the prediction that the greatest implicit competition will be experienced by partisans encountering political conspiracies concordant with their party. This prediction also implies that conspiratorial ideation is not a general trait, but is selectively experienced (Swami, 2012; Swami, Chamorro-Premuzic, & Furnham, 2010). This selectively leads to a second prediction that there will be comparatively less competition for partisans when deciding on how to endorse other types of conspiracies, either those originating from the opposing party or those that are non-partisan in nature.

Moreover, based on previous research showing that conspiratorial ideation strongly depends on what is occurring in a larger political context (Oliver & Wood, 2014; Uscinski et al., 2011), the relative differences in political power between parties at the time responses are given must be taken into consideration. Since party identifiers are more likely to feel threatened and are more susceptible to motivated reasoning biases when their party is out of power (Hewstone, Rubin, & Willis, 2002; Miller et al., 2015), we predict greater response competition for these partisans. For the current study, data were collected during a timespan in which a Democrat, Barack Obama, held the presidency and during a time when many Democrat-aligned causes were being enacted (e.g., the passage of the Affordable Care Act, mainstreaming of marriage equality). Thus, for conspiracy nonbelievers, Republicans were predicted to show greater competition toward an endorsement response compared to Democrats; and for conspiracy believers, Republicans were predicted to show less competition toward a disavowal response compared to Democrats.

Lastly, we take a novel experimental approach to capture the time course of competition with explicit responses. Presumably, understanding the strength of underlying biases is to capture its onset, amount, and persistence over time – the temporal dynamics. These dynamics tend to be obscured when collapsed to a single item (i.e., reaction time), as is typically done with other methods. We address this

Table 1

Subset of statements where hidden biases (either based on motivated reasoning or need for accuracy/self-presentation) might be revealed, with predictions of how bias would be expressed by Republicans and Democrats in the average deviation measure, depending on whether they are nonbelievers or believers of each political conspiracy statement. Additionally, for each political conspiracy statement (direct vs. indirect), the ideological view most associated with the statement is provided in parenthesis (right- vs. left-wing), and also provided is the “correct” target response for nonbelievers and believers.

| Type of conspiracy statement | Nonbelief | | Belief | |
|--|-----------------|----------------------------|-----------------|----------------------------|
| | Target response | Hidden bias competition | Target response | Hidden bias competition |
| Direct conspiracy statements, negatively-valenced | | | | |
| Barack Obama is a Muslim. (Right-wing) | Select “false” | Republican: toward “true” | Select “true” | Republican: toward “false” |
| Barack Obama disregarded information to prevent the attack on the American consulate in Benghazi. (Right-wing) | Select “false” | Republican: toward “true” | Select “true” | Republican: toward “false” |
| George W. Bush used fraud to win the 2000 election. (Left-wing) | Select “false” | Democrat: toward “true” | Select “true” | Democrat: toward “false” |
| George W. Bush helped plot the 9/11 terrorist attacks as a means to going to war in Iraq. (Left-wing) | Select “false” | Democrat: toward “true” | Select “true” | Democrat: toward “false” |
| Indirect conspiracy statements, positively-valenced | | | | |
| Barack Obama was born in Hawaii. (Right-wing) | Select “true” | Republican: toward “false” | Select “false” | Republican: toward “true” |
| Barack Obama has never suggested that government-led medical panels should make end-of-life decisions for people. (Right-wing) | Select “true” | Republican: toward “false” | Select “false” | Republican: toward “true” |
| George W. Bush did not act as a dictator during his presidency. (Left-wing) | Select “true” | Democrat: toward “false” | Select “false” | Democrat: toward “true” |
| George W. Bush was behind a government plan to help repair the levees protecting black people after Hurricane Katrina. (Left-wing) | Select “true” | Democrat: toward “false” | Select “false” | Democrat: toward “true” |

limitation by drawing on a theoretical and methodological advancement in the cognitive sciences that allows us to examine the relevant dynamics via participants' arm motor movements as they answer a series of political statements, some involving political conspiracies. In what follows, we describe the experimental setup and provide greater detail on our method for capturing response dynamics.

2. Method

2.1. General setup

Participants responded to 38 statements, 12 involving political conspiracies about George W. Bush and Barack Obama (see Table 1 for examples). In each trial, a statement item was presented two words at a time on a computer screen, with participants controlling the rate of presentation by clicking on a small calibration circle at the center bottom of their screens. When participants reached the end of each statement, the words “False” or “True” were displayed in the screen's opposite top corners (counterbalanced across participants). Fig. 1 shows the progression of an example trial with the political conspiracy statement: “George W. Bush used fraud to win the 2000 election”. In responding to each item, participants had 6s to move their cursor to one of the response options. Because participants were receiving a small monetary payment, if they exceeded 6s, the trial was skipped and a warning was presented that payment would be withheld for excessive delays. After each response, participants also rated confidence in their response on a scale from 1 to 5 (from low to high). When all 38 statements had been answered, participants were then redirected to a standard survey to answer questions about political identity, political knowledge, and basic demographics.

2.2. Movement trajectories

The x,y coordinate positions of the movement trajectories were sampled at a rate of 60 Hz. For data analysis purposes, the trajectories were standardized to 51 time steps using interpolation. The “true” and “false” response locations, which were originally counterbalanced during participants' responding, were also transformed so the target response was always in the top-right corner of the screen (positive coordinate region) and the competitor response always in the top-left corner (negative coordinate region) (see Supplementary material for averaged “raw” angle-transformed trajectories across all conditions; Figs. S1–5).

2.3. Capturing response competition: movement measures

Of most importance to capturing implicit competition are the subtle changes in the temporal dynamics and moment-by-moment x,y coordinate positions of the moving mouse cursor. It is the co-presence of the target and non-target response options that are hypothesized to elicit systematic changes in movement. A primary theoretical assumption is that the response options displayed on the screen correspond to underlying mental states that are activated as distributed and partially overlapping neural representations (Magnuson, 2005; Spivey & Dale, 2006). When choosing between options, these representations are simultaneously activated, with resolution toward one determined by a nonlinear accumulation of information that supports each and that competes over time. Eventually one representation stabilizes while the activation of the other fades. Because this recurrent and temporally-evolving process is connected with sensory-motor neural activity, the cognitive dynamics of activation and competition are displayed in the continuous and direct updating of probabilistically guided motor actions (O’Hora, Dale, Piiroinen, & Connolly, 2013).

In previous research, signatures in these movements have been found to be useful for discerning competition effects in high-level cognitive tasks (Coco & Duran, 2016; Duran, Dale, & McNamara, 2010; Wojnowicz, Ferguson, Dale, & Spivey, 2009). This includes related work where contextual cues were used to elicit hidden stereotypical beliefs (Freeman, Penner, Saperstein, Scheutz, & Ambady, 2011). We focus on two complementary indices: *latency time* to commit to a response and *average deviation* (see Fig. 1). *Latency time* is based on the time to it takes participants to move 100 pixels from the point of origin (i.e., calibration circle) toward a response location within each trial, also known as the “escape region”. Increased latency time within the escape region suggests hesitation to commit to the target response at the earliest moments of processing, presumably because the alternative response is a viable option. As this competition persists into later phases of the decision, it can be seen as spatiotemporal attraction to the location of the alternative response on the screen. For the direct political conspiracy in Fig. 1: “George W. Bush used fraud to win the 2000 election”, an implicit motivated reasoning bias is shown for a “nonbeliever” participant. This is expressed as movement toward the unselected “true” (endorse) option en route to the selected “false” (disavowal) target. Conversely, if the direct conspiracy was instead explicitly endorsed by a “believer,” potential implicit accuracy/self-presentation biases would be evidenced by movement toward the unselected “false” (rejection) option en route

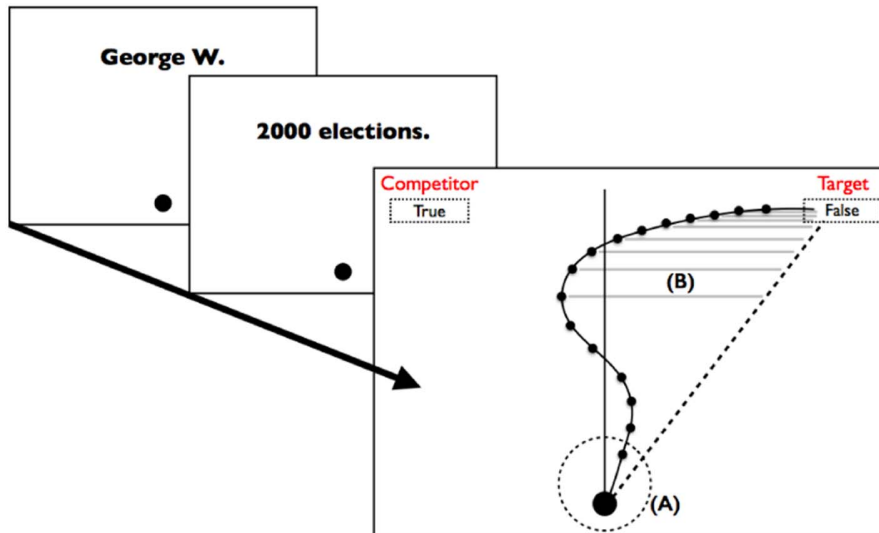


Fig. 1. At the start of each trial, the first two words of each statement (“George W. Bush used fraud to win the 2000 election;” direct political conspiracy statement) are presented and participants click on the circle at the bottom of the screen to proceed two words at a time. When the last words of the sentence are presented (“2000 elections”), the next screen reveals the two response options at the top. Participants must quickly move their mouse cursor (within 6 s) from the bottom of the screen to a target response. An example movement is visualized here as a trajectory across xy points (small black circles) as a “false” response is selected. From the xy trajectory, the following critical measures are generated: at (A), latency of response initiation, based on the time taken for the trajectory to travel an initial short distance toward a response option, with the distance threshold marked by the dashed circle for explanatory purposes, and at (B) deviation toward competitor, the grey lines correspond to the deviations of each sampled time point from an ideal straight line to target (black dashed line).

to the selected “true” (endorse) target. This type of spatiotemporal competition is captured by the *average deviation* measure, generated by computing the deviation of the trajectory at each coordinate position from a hypothetical straight line drawn from the edge of the escape region to the target response. The degree of deviation is taken as an index of implicit competition strength.

2.4. Statement types

2.4.1. Political conspiracy theories

We identified political conspiracies associated with Presidents Barack Obama and George W. Bush that have been used in national polls (e.g., AEI, 2013; Pew Research Center, 2014), and in previously published research (e.g., Miller et al., 2015; Oliver & Wood, 2014). This helped ensure that each political conspiracy had the potential to be in the public consciousness and had been previously validated. Each political conspiracy also adhered to the basic definition introduced earlier: the assignment of ulterior motivations to powerful government agents in their planning, controlling, and maintaining of critical events or activities.

For each president, there were two versions of six core political conspiracies (thus 12 possible political conspiracy statements for each). The first version asserts each conspiracy in direct, explicit, and negatively-valenced terms, such as “Barack Obama wants to take away Americans’ right to own guns”. The second version states the same conspiracy in opposite and indirect terms, where the conspiracy is veiled by a positive/neutral framing, such as “Barack Obama respects Americans’ right to own guns”. The purpose of the two versions was based on an assumption that participants would have to process the content of the statements in greater depth in making bi-directional evaluative judgments. It also provides an opportunity to examine implicit appeal or aversion in statement types where the conspiracy was present but negated. It is also important to note that while the truth claims of individual political conspiracies might be open to dispute, for purposes of analysis, our interest is simply in the competition effects experienced when people choose to disavow (treat as false) or endorse (treat as true) based on their subjective evaluations.

For each participant, six Obama political conspiracies and six Bush political conspiracies were randomly selected, ensuring that for each group, three were in the direct form and three in the indirect form. Table 1 provides example items and our predictions for how hidden bias might be expressed for “nonbelievers” and “believers” across direct and indirect political conspiracies (full list of statement types in Supplementary material, Table S1).

2.4.2. Control

Additional items were included where the presence of a hidden bias was expected to be negligible and could be compared against the political conspiracy statements as a baseline. These include: a) true and false non-conspiracy statements about Barack Obama and George W. Bush, such as “George W. Bush has twin boys” or “Barack Obama is of African and European descent”, and b) true and false political knowledge statements, such as “Medicare is a program run by the U.S. federal government to pay for old people’s health care” or “The current Chief Justice of the U.S. Supreme Court is Sonia Sotomayor”. These statements are similar in length as the political conspiracies and contain political content that require an evaluative judgment. Also, similar to the political conspiracies, a larger pool of six true statements was created for Barack Obama, George W. Bush, and general political knowledge items (for a total of 18 items), with an equal number of false counterparts generated (also 18 items). From each pool of six, three statements were randomly selected for each participant.

Finally, a third category of control statements was generated that included six non-partisan directly-stated conspiracy statements such as “The Apollo moon landings never happened and were staged in a Hollywood film studio” (derived from Lewandowsky, Oberauer, & Gignac, 2013). These were used to determine whether participants exhibit hidden biases to all types of conspiracies, or only those that are partisan.

2.5. Participants

Participants were recruited through Amazon Mechanical Turk (AMT), an online crowdsourcing platform, and paid \$1.50 for their time. A total of 852 participants were collected over the course of 10 months, from January 2014 to October 2014. Data was collected ensuring that: a) participants’ IP addresses were based in the United States, b) that they were 18 years of age or older, and c) that they only completed the study once.

Party identification was obtained following the trajectory response phase of the study. Borrowing the standard question from the American National Election Study, we asked: “Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or what?” If participants selected “Independent” or “Other/No Preference” they were then asked: “Do you think of yourself as closer to the Republican or Democratic party?” Following standard practices, participants who selected “Neither” to this question were classified as an “Independent,” otherwise they were coded as “Republican” or “Democrat” (Keith, Magleby, Nelson, Orr, & Westlye, 1992). A total of 193 (22.68%) participants identified as Republicans and 504 (59.22%)

as Democrats. The mean age for Republicans was 36.63 years (range: 18 to 68 years; 25% quantile: 27 years; 75% quantile: 44 years) with 98 females. The mean age for Democrats was 33.76 years old (range: 18 to 73; 25% quantile: 26 years; 75% quantile: 39 years) with 237 females.

The above sample size was based on a projection that at least 150 participants would be needed for each group to run the current analyses and future studies. This target is comparable to previous mouse-tracking studies on related high-level cognition for ensuring adequate power (see [McKinstry, Dale, & Spivey, 2008](#)). The target was also set to approximate political science research that prioritizes large, representative samples ([Weisberg, Krosnick, & Bowen, 1996](#)). Because participants self-selected to groups, and the Amazon Mechanical Turk sample is skewed toward Democrats, Democrats accumulated at a faster rate before Independents reached 150 participants (the last to do so).

3. Conspiracy response trends

In examining political conspiracies, Republicans responded to 2301 political conspiracy items, with 1583 (68.80%) disavowed as a non-belief and the remaining (31.20%) endorsed as a belief. Democrats responded to 6010 political conspiracy items, with 4606 (76.64%) disavowed as a nonbelief and the remaining (23.36%) endorsed as a belief. Within each of these nonbelief and belief subsets, there were further critical variations depending on whether items were concordant or discordant with political party. As shown for nonbeliefs ([Table 2](#)), both Republicans and Democrats disavowed more discordant conspiracies compared to the more ideologically-aligned concordant conspiracies. For beliefs, the opposite was true, with greater endorsement of concordant conspiracies compared to the more ideologically-divergent discordant conspiracies ([Table 3](#)). Moreover, for Republicans, of all the discordant conspiracies involving Bush, only 13.88% were endorsed as beliefs (160 out of 1153 items), and for Democrats, of all the discordant conspiracies involving Obama, only 15.76% were endorsed as beliefs (474 out of 3007).

Other relevant trends appear when examining response rates at the level of subject rather than items. For example, despite only 12 (6.22%) Republicans and 44 (8.78%) Democrats disavowing all conspiracies, the vast majority of Republicans and Democrats still disavowed at least one political conspiracy of either concordant or discordant forms (concordant: 100% of Republicans and 99.80% of Democrats; discordant: 89.64% of Republicans and 98.81% of Democrat; see [Table 4](#)). At the same time, these participants cannot be labeled “nonbelievers” given a sizable percentage also endorsed at least one political conspiracy (concordant: 88.08% of Republicans and 79.76% of Democrats; discordant: 46.63% of Republicans and 55.35% of Democrats; see [Table 4](#)). For further insight into the most frequent concordant and discordant political conspiracies answered by Republicans and Democrats, please see Supplementary materials.

The last major response trend is that of the directly-stated general conspiracies. For Republicans, of the 1074 general conspiracy items encountered, 839 (78.12%) were disavowed and the remaining (21.88%) were endorsed. Also, 60.01% of Republicans endorsed at least one general conspiracy. For Democrats, of the 2763 general conspiracy items encountered, 2149 (77.78%) were disavowed and the remaining (22.22%) were endorsed, with 53.77% of Democrats endorsing at least one general conspiracy.

4. Statistical analysis

All analyses are based on linear mixed-effects models with the movement indices of *latency* and *average deviation* entered separately as dependent variables. To test key research questions, analyses are grouped into distinct sets based on whether conspiracy responses were answered as nonbeliefs or beliefs (for justification, see section “[Note on separating belief and nonbelief responses](#)”), and whether comparisons are being made *between* partisan groups or *within* partisan groups. The major difference between the two comparisons is that the *between* partisan groups statistical model includes a deviation-coded fixed effect for political party (Republican vs. Democrat), whereas the *within* partisan group statistical model uses a dummy-coded fixed effect for political party that allows Republicans and Democrats to be examined separately.

For both types of comparisons, the focus is on how Republicans and Democrats answer political conspiracy statements (controlling for baseline responses), and whether variation depends on statement directness. All models thus contain deviation-coded fixed effects for statement directness (direct vs. indirect) and planned contrast variables for statement type (Bush conspiracies, Obama conspiracies, general conspiracies, and general political knowledge), of which there are five possible contrasts: 1) Obama conspiracies vs. Bush conspiracies, 2) Obama conspiracies vs. general political knowledge items, 3) Obama conspiracies vs. general conspiracy items, 4) Bush conspiracies vs. general political knowledge items, and 5) Bush conspiracies vs. general conspiracy items. For the *between* partisan groups analysis, given how party identity is entered into the statistical model, this corresponds to research questions that can be expressed along the lines of, for example: “Do Republicans, relative to Democrats, show greater latency times in how they respond to Obama conspiracies as compared to how they respond to general political knowledge items?” For the *within* partisan groups analysis, the resulting research questions are along the lines of, for example: “Do Republicans, irrespective of Democrats, show greater latency times in how they respond to Obama conspiracies as compared to how they respond to general political knowledge items?”

All models also control for subject and item variability, as well as for the age of participants. Specifically, age was entered as a covariate, and subject and item were used as random effects that included random slopes for statement directness and planned contrast variables. For models that did not converge, a backward-fitting approach was used in which the random effect that captured the least variance was removed for each consecutive model until convergence was achieved.

We report an overall measure of captured variance, coefficients of the predictors, their standard error, and derive *p*-values for each of the predictors. All analyses were carried out in R version 3.3.1 and the lme4 package (version 1.1–7) ([Bates, Maechler, & Bolker, 2011](#)). We also employed the R multcomp package (version 1.4.6) ([Bretz, Hothorn, & Westfall, 2010](#)) to test the statistical significance of relevant contrasts and interactions. The *p*-value here is approximated from the *t*-values for each of the factors in the model. Captured variance of overall models is reported as Conditional R² (R²) - variance explained by fixed and random factors together - and computed using the MuMin R statistical package (version 1.15.6) ([Johnson, 2014](#)). The code for preparing data, specification of planned contrasts, and testing of statistical models is provided as R Markdown tutorials at <https://github.com/nickduran/politicalConspiracies>.

Table 2

Item-level, nonbelief. Number of political conspiracy and general conspiracy trials that were disavowed as a nonbelief. Political conspiracy trials could either be concordant or discordant with political party depending on whether participants self-identified as a Republican or Democrat, with the conspiracy stated in direct or indirect terms.

| | Political conspiracy concordant | | | Political conspiracy discordant | | | General conspiracy |
|-------------|---------------------------------|----------|-------|---------------------------------|----------|-------|--------------------|
| | Direct | Indirect | Total | Direct | Indirect | Total | Direct |
| Republicans | 275 | 315 | 590 | 519 | 474 | 993 | 839 |
| Democrats | 1106 | 967 | 2073 | 1250 | 1283 | 2533 | 2149 |

Table 3

Item-level, Belief. Number of political conspiracy and general conspiracy trials that were endorsed as a belief. Political conspiracy trials could either be concordant or discordant with political party depending on whether participants self-identified as Republican or Democrat, with the conspiracy stated in direct or indirect terms.

| | Political conspiracy concordant | | | Political conspiracy discordant | | | General conspiracy |
|-------------|---------------------------------|----------|-------|---------------------------------|----------|-------|--------------------|
| | Direct | Indirect | Total | Direct | Indirect | Total | Direct |
| Republicans | 298 | 260 | 558 | 58 | 102 | 160 | 235 |
| Democrats | 398 | 532 | 930 | 254 | 220 | 474 | 614 |

Table 4

Subject-level, nonbelief. Number of Republicans and Democrats who provided a nonbelief response to at least one of each type of conspiracy. For political conspiracies, these could either be concordant or discordant with political party depending on whether participants self-identified as Republican or Democrat. Number in parentheses is percentage based on total number of Republicans and Democrats.

| | Political conspiracy concordant | Political conspiracy discordant | General conspiracy |
|-------------|---------------------------------|---------------------------------|--------------------|
| Republicans | 173 (89.64%) | 193 (100%) | 180 (93.26%) |
| Democrats | 498 (98.81%) | 503 (99.80%) | 457 (90.67%) |

4.1. Note on separating belief and nonbelief responses

The division of belief versus nonbelief response types was done for both sampling limitations and theoretical reasons. For sampling limitations, critical interactions involving belief versus nonbelief could not be computed within a single omnibus model because belief responses were severely unbalanced across participants and items. That is, some participants never provided a belief response (as shown in Table 5) and when such beliefs were given a large subset of participants only did so for one of the political conspiracy types (Obama or Bush item-types). Even without the sampling limitations, separate analyses for belief and nonbelief responses were pursued because of an assumption that unique processing demands underlie each response type (motivated reasoning for nonbelief; accuracy biases for belief), and these demands would be expressed relative to baseline control statements, not necessarily when compared to each other. In other words, there was no strong a priori reason for why belief responses should necessarily show greater processing demands when compared to nonbeliefs.

5. Results: “nonbelief” responses

5.1. Comparison between partisan groups

For this analysis, an omnibus statistical model was built to explore the three-way interaction between political party (Republican = 0.5, Democrat = -0.5), statement directness (Direct = 0.5, Indirect = -0.5), and statement types, with the latter coded as planned contrasts that compare how disavowed political conspiracy statements (“Obama” or “Bush”) were answered relative to: a) each other (Obama = 0.5, Bush = -0.5), b) general political knowledge (“GK”) as control baseline (Obama or Bush = 0.5, GK = -0.5), and c) disavowed general conspiracies (“GC”) as

Table 5

Subject-level, Belief. Number of Republicans and Democrats who provided a belief response to at least one of each type of conspiracy. For political conspiracies, these could either be concordant or discordant with political party ideology depending on whether participants self-identified as Republican or Democrat. Number in parentheses is percentage based on total number of Republicans and Democrats.

| | Political conspiracy concordant | Political conspiracy discordant | General conspiracy |
|-------------|---------------------------------|---------------------------------|--------------------|
| Republicans | 170 (88.08%) | 90 (46.63%) | 116 (60.01%) |
| Democrats | 402 (79.76%) | 279 (55.35%) | 271 (53.77%) |

control baseline (Obama or Bush = 0.5, GC = -0.5). The descriptive data (means and standard errors) for all relevant variables is shown in Table 6, and Table 7 provides a summary of model output for latency and average deviation, separating out the results for each of the planned contrasts and their interactions with political party and statement directness. And lastly, for purposes of visualization, Fig. 2 shows the spatiotemporal displacement (the basis for the average deviation measure) of each of the conspiracy responses relative to the general political knowledge baseline, where the difference between Republicans and Democrats can be visually inspected.

Before interpreting the statistical significance of the individual-level contrasts as shown in Table 7, we first ensured that the overall two-way interaction (involving political party and contrasts) and the overall three-way interaction (with statement directness) was statistically significant. To do so, a likelihood ratio test was performed between the omnibus model and models without the critical two- or three-way interactions. For the latency model, the overall two-way interaction was statistically significant ($\chi^2(2) = 17.585, p = 0.0001$) as was the three-way interaction ($\chi^2(1) = 4.486, p = 0.034$). For the average deviation model, only the overall two-way interaction was statistically significant ($\chi^2(2) = 16.342, p = 0.0002$).

Based on the contrast coding scheme, the two-way interaction coefficients in Table 7 should be interpreted as the difference between political conspiracies and various baselines, with the direction of the value indicating whether Republicans’ values were more pronounced (positive direction) or less pronounced (negative direction) than Democrats. As such, beginning with the latency results, Republicans, as compared to Democrats, took longer to initially disavow Obama political conspiracies relative to disavowing Bush political conspiracies (“ObamaBush:Party”; see Table 7) and relative to answering general political knowledge items (“ObamaGK:Party”). Conversely, Republicans were faster, as compared to the Democrats, to disavow Bush political conspiracies relative to answering general political knowledge items (“BushGK:Party”) and relative to disavowing general conspiracies (“BushGC:Party”). These results are further qualified by the overall statistically significant three-way interaction, with the differences between Obama relative to Bush political conspiracies, and Obama political conspiracies relative to general political knowledge, depending on statement directness (“ObamaBush:Party:Direct” and “ObamaGK:Party:Direct,” respectively). In the follow-up tests of these interactions, separating out each level of statement directness, only responses to the indirect statements were statistically significant, such that for the Obama versus Bush comparison, Republicans took longer than Democrats to initially disavow Obama political conspiracies, $B = 183.81, SE = 40.84, t(4.50), p < .001$, and for the Obama versus general political knowledge comparison, Republicans also took longer than Democrats to initially disavow, $B = 101.08, SE = 22.78, t(4.44), p < .001$.

Next, for the average deviation results, Republicans, as compared to Democrats, showed greater attraction to an “endorsement” option while disavowing Obama political conspiracies relative to all baseline statement types (“ObamaBush:Party,” “ObamaGK:Party,” and “ObamaBushGC”). Conversely, Republicans showed less attraction to an “endorsement” option, as compared to Democrats, when disavowing Bush political conspiracies relative to answering general political knowledge items (“BushGK:Party”). Given the overall three-way interaction was not statistically significant, there are no additional qualifications for average deviation in terms of statement directness.

Table 6

Nonbelief. Means and standard errors of latency and average deviation trajectory variables for all relevant response types across Republicans and Democrats, separated by levels of statement directness. For latency, measured in milliseconds, higher values correspond to increased time to initially respond. For average deviation, greater values correspond to greater deviation toward the competitor target (to endorse) while ultimately disavowing. “GK” refers to general political knowledge, “GC” refers to general conspiracies.

| | | Republicans | | | | Democrats | | | |
|----------|-------------------|----------------|----------------|---------------|---------------|---------------|----------------|---------------|---------------|
| | | Obama | Bush | GK | GC | Obama | Bush | GK | GC |
| Direct | Latency | 467.17 (13.12) | 427.70 (10.98) | 464.28 (6.70) | 465.62 (8.91) | 478.03 (8.88) | 445.11 (8.69) | 472.71 (4.77) | 447.22 (4.81) |
| | Average deviation | 61.77 (3.61) | 45.16 (2.08) | 51.80 (1.34) | 44.30 (1.55) | 53.91 (1.66) | 48.24 (1.54) | 51.31 (0.82) | 44.73 (1.02) |
| Indirect | Latency | 512.72 (20.78) | 468.09 (13.28) | 434.19 (7.36) | – | 471.99 (7.56) | 504.89 (10.52) | 435.26 (4.50) | – |
| | Average deviation | 55.09 (3.09) | 51.41 (2.63) | 49.97 (1.31) | – | 52.39 (1.52) | 59.87 (2.09) | 49.83 (0.80) | – |

5.1.1. Interim discussion

The goal of this analysis was to directly compare Republicans and Democrats to determine if there were differences in how each group responded to Obama and Bush conspiracy statements. When Obama political conspiracy statements were encountered, Republicans showed greater initial hesitancy to disavow these conspiracies (specifically when expressed indirectly), and while in the process of disavowing, showed greater attraction to an endorsement option. Given these results should be interpreted relative to how Democrats responded, it is unclear whether Republicans' behavior was due to an implicit endorsement of Obama political conspiracies, or whether Democrats were faster and more direct in explicitly disavowing what would have been party discordant conspiracies. Likewise, this also applies to Bush political conspiracy statements, where Democrats were slower and more deviated in disavowing. Does this support greater implicit endorsement for party concordant conspiracies with Democrats, or were Republicans simply more certain in their disavowal of their own party discordant conspiracies? It is necessary to examine responses within each political party to help address this issue. If Republicans are expressing a greater implicit endorsement for party concordant conspiracies, we should expect higher latency and average deviation scores for Obama political conspiracies relative to the other statement types. And if Democrats are expressing a greater implicit endorsement for party concordant conspiracies, we should expect higher scores for Bush political conspiracies relative to the other statement types.

5.2. Comparison within partisan groups

We continue to examine nonbelief responses using the same omnibus model as above, but rather than comparing relative differences between Republicans and Democrats, the goal here is to evaluate how partisans answer political conspiracies (relative to baseline statements) as a group. Accordingly, the interaction term with political party is removed and replaced with a dummy-coded variable that allows Republicans and Democrats to be evaluated separately, with a focus on the main effect of statement types as a series of planned contrasts, and their interaction with statement directness.

Table 7

Coefficients of mixed effects linear models, reporting the B with associated standard error (SE), *p*-value, and the *t*-value from which it was derived. The overall captured variance for each omnibus model is also reported as Conditional R² (R²). Each dependent measure is organized across columns, with critical effects from model output organized along rows. These effects correspond to a planned contrast (e.g., “ObamaGK” should be interpreted as Obama political conspiracies as compared to general political knowledge items) and the interaction of the contrast with political party (“Party”); with Democrats as baseline) and statement directness (“Direct”; with indirect statements as baseline). It should be noted that interactions involving statement directness and general conspiracies were not possible as general conspiracies were only presented as direct statements.

| | Latency (R ² = 0.339) | | | | Average deviation (R ² = 0.120) | | | | |
|------------------------|----------------------------------|-------|--------|------|--|-------|--------|------|---|
| | B | SE | t | p | B | SE | t | p | p |
| ObamaBush:Party | 122.23 | 29.14 | 4.19 | 0.00 | 24.39 | 6.14 | 3.97 | 0.00 | |
| ObamaGK:Party | 51.86 | 18.55 | – 2.80 | 0.00 | 13.01 | 3.91 | 3.33 | 0.00 | |
| BushGK:Party | – 70.37 | 16.17 | – 4.35 | 0.00 | – 11.38 | 3.41 | – 3.34 | 0.00 | |
| ObamaGC:Party | 14.48 | 31.78 | 0.46 | 0.65 | 16.12 | 6.70 | 2.41 | 0.02 | |
| BushGC:Party | – 107.75 | 28.80 | – 3.74 | 0.00 | – 8.27 | 6.07 | – 1.36 | 0.17 | |
| ObamaBush:Party:Direct | – 122.75 | 57.95 | – 2.12 | 0.03 | 0.35 | 12.23 | 0.03 | 0.98 | |
| ObamaGK:Party:Direct | – 73.13 | 32.73 | – 2.23 | 0.03 | 1.74 | 6.91 | 0.25 | 0.80 | |
| BushGK:Party:Direct | 49.62 | 29.66 | 1.67 | 0.09 | 1.39 | 6.26 | 0.22 | 0.82 | |

5.2.1. Republicans

Likelihood ratio tests revealed overall statistically significant results for the main effects in both the latency and average deviation models (latency: $\chi^2(2) = 7.724, p = 0.021$; average deviation: $\chi^2(2) = 10.370, p = 0.006$), but not for the interaction with statement directness. Thus, for interpretation, the focus is on the planned contrasts collapsed across statement directness (Table 8).

5.2.2. Democrats

For both latency and average deviation, the overall effect of statement type and the two-way interaction with statement directness was not statistically significant. Thus, for Democrats, latency and average deviation in political conspiracy responses did not vary statistically from baselines.

5.2.3. Additional analyses: post-response confidence scores

As a follow-up analysis, we also examined whether an explicit sense of conflict was experienced from partisans after disavowing party concordant political conspiracies. These assessments are based on participants' confidence in the correctness of their given response, as reported on a Likert scale of 1 to 5 (1 = low confidence, 5 = high confidence). Specifically, we were interested in whether partisans reported lower confidence immediately following their disavowal of party concordant political conspiracies (relative to other statement types), and/or higher confidence immediately following their disavowal of party discordant political conspiracies (relative to other statement types). To evaluate these confidence scores, and the ways in which they might align with mouse-tracking' latency and average deviation results, we built linear mixed-effects models identical to those used in the previous within partisan groups analysis, but now with the Likert scale confidence score entered as dependent variable.

5.2.4. Republicans

The likelihood ratio test revealed an overall statistically significant main effect (confidence: $\chi^2(2) = 29.839, p < 0.001$), but not for the interaction with statement directness. Based on the individual-level

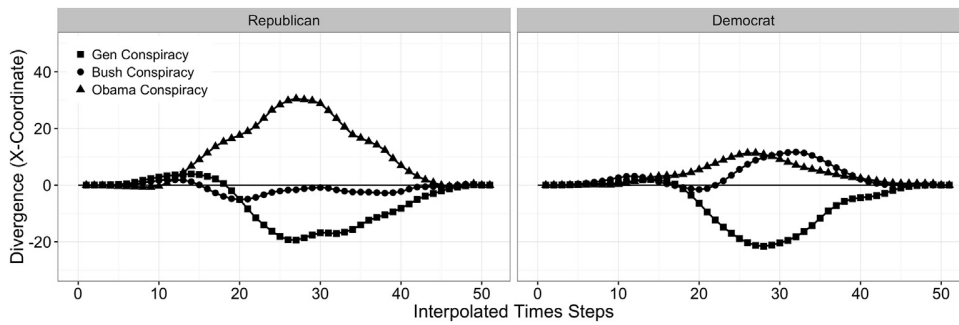


Fig. 2. Nonbelief responses separated by Republican and Democratic participants, with direct and indirect conspiracy statements collapsed. Each line shows average trajectory deviation of each conspiracy type relative to baseline general political knowledge items (e.g., Obama conspiracy x-coordinate - general political knowledge x-coordinate) over time.

Table 8

Republicans: Results of mixed-effects models comparing Obama political conspiracies (party concordant for Republicans) to within-group baseline statement types (e.g., responses to Bush political conspiracies, general political knowledge, and general conspiracies). Responses to Bush political conspiracies (party discordant for Republicans) are also compared to general political knowledge items as baseline. For each variable, cells include coefficients, standard errors, *t*-value in which the *p*-values are based, and the *p*-values.

| | Latency | | | | Average deviation | | | |
|-----------|---------|-------|----------|----------|-------------------|------|----------|----------|
| | B | SE | <i>t</i> | <i>p</i> | B | SE | <i>t</i> | <i>p</i> |
| ObamaBush | 111.82 | 53.04 | 2.11 | 0.04 | 23.64 | 8.06 | 2.93 | 0.00 |
| ObamaGK | 69.67 | 33.56 | 2.08 | 0.04 | 18.65 | 5.14 | 3.63 | 0.00 |
| BushGK | -42.54 | 32.16 | -1.31 | 0.19 | -4.98 | 4.73 | -1.05 | 0.29 |
| ObamaGC | 43.54 | 65.37 | 0.67 | 0.51 | 30.55 | 9.65 | 3.17 | 0.00 |
| BushGC | -68.28 | 63.87 | -1.07 | 0.29 | 6.91 | 9.20 | 0.75 | 0.45 |

planned contrasts collapsed across statement, with these results shown in Table 9, Republicans reported having less confidence in the correctness of their responses when they disavowed party discordant Obama political conspiracies ($M = 3.778$, $SE = 0.048$) relative to their confidence expressed when disavowing: a) Bush political conspiracies (“ObamaBush;” $M = 4.453$, $SE = 0.029$), b) general political knowledge items (“ObamaGK;” $M = 4.429$, $SE = 0.018$), and c) general conspiracies (“ObamaGC;” $M = 4.231$, $SE = 0.036$). Moreover, Republicans reported greater confidence in the correctness of their responses when disavowing party concordant Bush political conspiracies relative to their confidence expressed when disavowing general political knowledge items (“BushGK”).

5.2.5. Democrats

The likelihood ratio test revealed an overall statistically significant main effect (confidence: $\chi^2(2) = 14.964$, $p < 0.001$), but not for the interaction with statement directness. However, based on the individual-level planned contrasts collapsed across statement, with these results shown in Table 9, none of the contrasts were at the $p = 0.05$ threshold used to determine statistical significance. However, it is worth noting there was a marginally significant effect for the confidence expressed when disavowing party discordant Bush political conspiracies, where there was less confidence when party discordant conspiracies ($M = 4.042$, $SE = 0.024$) relative to disavowing general political knowledge items ($M = 4.384$, $SE = 0.012$).

6. Results: conspiracy “belief” responses

Although the majority of political conspiracy responses, as a whole, were nonbeliefs, a large number of party concordant political conspiracies were nevertheless endorsed. Proportionally, for Republicans, 48.61% of all such responses were endorsed, with 88.08% of all Republicans endorsing at least one; for Democrats, 30.97% of all party concordant political conspiracies were endorsed, with 79.76% of all Democrats endorsing at least one (see section “Conspiracy response

Table 9

Results of mixed-effects models for post response confidence scores separated by Republican and Democratic responders. For each variable, cells include coefficients, standard errors, *t*-value in which the *p*-values are based, and the *p*-values. The overall captured variance for the omnibus model is also reported as Conditional R^2 (R^2) at the bottom of the table.

| | Republicans | | | | Democrats | | | |
|-----------------|-------------|------|----------|----------|------------|------|----------|----------|
| | Confidence | | | | Confidence | | | |
| | B | SE | <i>t</i> | <i>p</i> | B | SE | <i>t</i> | <i>p</i> |
| ObamaBush | -1.40 | 0.32 | -4.40 | 0.00 | 0.35 | 0.31 | 1.15 | 0.25 |
| ObamaGK | -0.97 | 0.20 | -4.88 | 0.00 | 0.00 | 0.19 | 0.00 | 0.99 |
| BushGK | 0.42 | 0.20 | 2.15 | 0.03 | -0.35 | 0.19 | -1.84 | 0.07 |
| ObamaGC | -0.93 | 0.40 | -2.35 | 0.02 | 0.25 | 0.39 | 0.65 | 0.51 |
| BushGC | 0.46 | 0.39 | 1.17 | 0.24 | -0.10 | 0.39 | -0.26 | 0.79 |
| $(R^2 = 0.315)$ | | | | | | | | |

trends”). Although the reasons for outright endorsement are varied, our main concern is with the hidden biases that might compete with such endorsement. Unlike expressing a nonbelief, which is thought to be marked by a motivated reasoning bias, we predict “need for accuracy” and “self-presentation” biases to instead be at play - assuming participants are aware at some level that their political conspiracy beliefs are based on unverifiable claims and are socially undesirable. Accuracy/self-presentation biases should undermine certainty in political conspiracy beliefs, such that the competitor response to disavow the conspiracy will have a pronounced influence on the trajectory response dynamics. Moreover, the strength of this influence should be greatest for Democrats, who may be less invested in maintaining the truth-value of their political conspiracy beliefs given that the Republican president had been out of power for over five years at the time of data collection.

6.1. Comparison within partisan groups

For this final analysis, we now examine belief responses for Republicans and Democrats as separate groups (within group analysis). The main research question is concerned with whether participants show accuracy/self-presentation biases when endorsing party concordant political conspiracies; for Republicans, these are unique to Obama political conspiracies, for Democrats, these are unique to Bush political conspiracies. Changes in initial latency and average deviation for these items were assessed relative to how participants responded to general political knowledge items as a baseline.

Unlike previous analyses, party discordant political conspiracies were not evaluated. Although underlying accuracy/self-presentation biases could also be present, it was relatively rare for a Republican to endorse a party discordant conspiracy that disparaged George W. Bush, and likewise, for a Democrat to endorse a party discordant conspiracy that disparaged Barack Obama. Such occurrences can be attributed to simple noise in the data, as well as people simply viewing these statements as accurate. But even if party discordant conspiracies were of interest, given their low base rate, as well as being poorly distributed

across participants, with only about half making at least one endorsement, statistical models would prove to be unreliable. And given the same data distribution issues also occurred with general conspiracy statements, these too were omitted as a comparative baseline.

Table 10 shows the means and standard errors for *latency* and *average deviation*, separated by Republicans and Democrats, as well as direct and indirect political conspiracy statements. An omnibus statistical model was constructed to explore the main effect of statement type, entered as a single contrast (party congruent political conspiracies vs. general political knowledge), and its interaction with statement directness. As done with other *within* groups analyses, a dummy-coded variable for partisan identification was used. The overall R^2 for the latency omnibus model was 0.330, and the overall R^2 for the average deviation omnibus model was 0.112.

6.2. Republicans

For both the latency and average deviation results, the main effect for statement type (comparing Obama political conspiracies to general political knowledge items) was not statistically significant, nor was the interaction with statement directness.

6.3. Democrats

For latency, the main effect for statement type (comparing Bush political conspiracies to general political knowledge items) was statistically significant, $B = 50.413$, $SE = 22.597$, $t(2.231)$, $p = 0.026$, indicating a longer time to initially endorse party concordant Bush political conspiracies. There was no statistically significant interaction with statement directness. For average deviation, the main effect was also statistically significant, $B = 5.851$, $SE = 3.019$, $t(1.938)$, $p = 0.05$, with greater attraction to a “disavowal” option while endorsing party concordant Bush political conspiracies. There was no statistically significant interaction with statement directness.

7. Discussion

A growing body of research suggests that beneath explicit expressions of opinion are other attitudes that might be at odds with what is ultimately expressed (Bargh & Chartrand, 1999; Burdein, Lodge, & Taber, 2006; Intawan & Nicholson, 2017). Based on an “action dynamics” framework, these competing attitudes are characterized by multiple sources of information that are briefly and partially co-activated, thus making it possible for biases supporting one attitude to exert an early and sustained influence even as another attitude gains in activation strength. It is also assumed that these processes can be tracked in real-time through continuous motor output. The motor commands that execute a response do not wait for a final

and stable attitude to be formed, but are instead updated in parallel with the underlying cognitive processes.

We extended this framework to self-reported nonbelief and beliefs in political conspiracies, as modulated by participants' party identification. We tracked the computer-mouse movements of party identifiers as they chose between one of two response options that would indicate either an endorsement or disavowal of the political conspiracy. We predicted that when participants disavowed or endorsed political conspiracies that were concordant with their political party, there would be greater processing costs and response competition to respond in an opposite way. These hypothesized effects were examined relative to participants' responses to at least one of the three baseline statement types: 1) political conspiracies that originated with the opposing political party (party discordant), 2) general non-political conspiracies, and 3) general (and neutral) political knowledge items. In what follows, we explore these distinctions and their implications in greater detail.

7.1. Explicit disavowal of political conspiracies

For the explicit disavowal of political conspiracies, Republicans showed pronounced implicit endorsement toward party concordant political conspiracies (i.e., those directed against Barack Obama) compared to most baseline statement types. This competition was evident from the earliest moments of processing, captured in initial latency to respond, and throughout the response, captured in the greater movement toward the opposing, unselected option. This was true both when responses were compared to how Democrats responded to the same items, and across statement types when examined internally to Republicans. We attribute this correspondence between party identity and an implicit, albeit temporary, appeal of party concordant (Obama) political conspiracies to the multifaceted nature of such beliefs as being simultaneously appealing and unappealing. On the one hand, they provide a certain sense of meaning and control, expression of dissent toward political powers, and provide a response to potential threats represented by those in power (Bost & Prunier, 2013; Miller, 2002; Sunstein, 2014). On the other hand, they are not based on readily verifiable activities, and their acceptance can carry negative connotations about the believer (Shermer, 1997).

Given no single political party is privileged to hidden biases, we expected that Democrats would also be susceptible to similar influences when disavowing their own set of party concordant political conspiracies (i.e., those directed against George W. Bush). Indeed, this initially appeared to be the case: relative to general political knowledge items, greater response latency and average deviation were found for Democrats when compared to how Republicans responded to the same items. But caution is necessary with this interpretation as there were no differences in how Democrats internally responded to party concordant (Bush) or party discordant (Obama) political conspiracies. This finding leads to the possibility that rather than Democrats showing an implicit endorsement, it was Republicans, relative to Democrats, who were faster and less attracted to the endorsement option when disavowing political conspiracies that cast George W. Bush in a bad light.

The asymmetries between political parties in the implicit appeal of political conspiracies implicate Republicans more so than Democrats. One conclusion that might be drawn is that there are inherent trait differences between Republicans and Democrats that make Republicans more susceptible to conspiratorial thinking (Jost, Glaser, Kruglanski, & Sulloway, 2003). Although plausible, it is also important to consider the political environment and conditions that alter the appeal and aversiveness of political conspiracies (Bost & Prunier, 2013; Sunstein, 2014). This view is consistent with a number of other researchers who argue key differences are likely to be elicited by which party is in power, the political “conspiracies are for losers” argument (e.g., Uscinski & Parent, 2014). As it relates to our study, given that the sitting president at the time of data collection was a Democrat, policies and actions from the executive branch were likely to be a more present and salient threat to Republicans (for a similar argument, see Miller

Table 10
Belief. Means and standard errors of latency and average deviation trajectory variables for all relevant response types across Republicans and Democrats, separated by levels of statement directness. Note that for Republicans, “Obama” political conspiracies correspond to the critical party concordant political conspiracies, and for Democrats, “Bush” political conspiracies correspond to the critical party concordant political conspiracies. “GK” refers to general political knowledge.

| | | Republicans | | Democrats | |
|----------|-------------------|-------------------|------------------|-------------------|------------------|
| | | Obama | GK | Bush | GK |
| Direct | Latency | 469.59 (14.99) | 434.19 (7.36) | 477.49 (14.22) | 435.26 (4.50) |
| | Average deviation | 52.45 (3.25) | 49.97 (1.31) | 53.08 (2.69) | 49.83 (0.80) |
| Indirect | Latency | 500.75 (17.40) | 464.28 (6.70) | 546.18 (15.96) | 472.71 (4.77) |
| | Average deviation | 55.88 (3.44) | 51.80 (1.34) | 58.68 (2.51) | 51.30 (0.82) |

et al., 2015). As a result, political conspiracy theories involving Barack Obama may have tapped into greater threat protection needs and motivated reasoning biases, even for Republicans who ostensibly denied believing in these conspiracy theories.

The previous rationale also implies that had the situation been reversed, with a Republican president in power, we would have expected greater hidden biases to be expressed when Democrats disavowed party concordant political conspiracies. Instead, in the current dataset, Democrats' party concordant (Bush) political conspiracies were against a former president who had been out of power for five years, a much less threatening environment. Furthermore, these conspiracies refer to events that occurred later in time (threat was less present) and may not be recalled with the same ease. Moreover, the Democratic responders in our study tended to skew younger than Republicans, with an average age of 33.76 years (SD: 11.02) compared to Republicans 36.63 years (SD: 11.82). Although participants' age was entered into statistical models as a covariate to help address potential influences, it is still the case that Democratic responders were younger than Republicans at the time their party concordant political conspiracies were first introduced. Future research will need to further consider the impact of age of exposure to political conspiracy theories, as well as the recency of the conspiracy in political discourse. Today, with the Republican Party in control of the presidency, we would anticipate Democrats to be more susceptible to conspiracies about President Trump. There are also other individual differences, including trait and motivational differences, that have been shown to modulate conspiratorial ideation and should be considered. Prime among these include levels of distrust in government (Goertzel, 1994; Miller et al., 2015; Swami et al., 2010), political knowledge (Miller et al., 2015), and self-esteem (Abalakina Paap et al., 1999).

The correspondence between Republicans' mouse movements and competition in disavowing party concordant (Obama) political conspiracies also raises the issue of whether a sense of competition was also experienced at a more overt level. Based on follow-up questions that asked about participants' confidence in the correctness of each given response, Republicans reported lower confidence on their disavowal of party concordant (Obama) political conspiracies compared to other statement types. Thus, the competition experienced in the more immediate and ongoing decision process, as captured by mouse movements, is also indirectly revealed at later moments of reflection. However, this correspondence is not merely redundant information, as the mouse movements provide the clearest evidence that partisan biases are operating at the initial moments of processing. The confidence scores also only indicate a generalized sense of uncertainty, whereas the mouse movements provide direct evidence of the increased attraction of the unselected, endorsement option at the time of decision-making.

It should also be noted that Democrats reported lower confidence after disavowing their own party concordant (Bush) conspiracies compared to general political knowledge items (a statistically marginal effect). This lower confidence suggests that Democrats too experience an explicit sense of uncertainty about whether party concordant (Bush) conspiracies are incorrect, but unlike Republicans, this uncertainty does not appear to be encoded in such a way as to be immediately elicited or in a way where the endorsement option is a strong challenger.

7.2. Explicit endorsement of political conspiracies

We hypothesized that for those who explicitly endorsed political conspiracy statements, there are still underlying motivations that might undermine one's confidence during endorsement. These motivations include accuracy biases rooted in a view of oneself as being rational and holding sound beliefs and self-presentation biases to avoid being seen as paranoid. Political conspiracies may challenge this view implicitly, particularly if the convergence of one's partisan views and the transitory socio-political context makes political conspiracies less enticing. Based on previous arguments, we argued that Democrats compared to

Republicans would find political conspiracies less enticing. And indeed, this was evident in their movement trajectories when endorsing conspiracies: there were greater initial latencies to respond and greater movement toward a “disavowal” response option, as compared to general political knowledge items. For Republicans who endorsed political conspiracy items, they did not show any statistically significant hesitation in doing so.

8. Concluding remarks

The pattern of results in our study suggests that subtle processing dynamics are involved in partisans' belief expressions about political conspiracies. It is not merely a “one conspiratorial size fits all” matter, in which partisan position always leads to temptation or resistance to particular political conspiracies. Rather, a number of factors are at play, such as the larger political context and recency of political conspiracies and potentially even trait differences between Democrats and Republicans. These appear to draw out certain underlying motivations that momentarily contradict explicit responses for both endorsements and non-endorsements in a consistent way. Moreover, the mouse-tracking paradigm used here uniquely unveiled these tendencies in a manner that less sensitive measures (such as reaction time) may not. Future work may fruitfully apply methods of this kind to more fully explore the time course of the activation and competition of implicit and deliberative attitudes, perhaps under political conditions that are less favorable to Democrats.

Author contributions

All authors contributed to the study concept and study design. Testing and data collection were performed by N. D. Duran, with funding assistance from S. P. Nicholson and R. Dale. N. D. Duran performed the data analysis and interpretation with critical feedback from S. P. Nicholson and R. Dale. N. D. Duran drafted the manuscript, and S. P. Nicholson and R. Dale provided critical feedback. All authors approved the final version of the manuscript for submission.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <http://dx.doi.org/10.1016/j.jesp.2017.07.008>.

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