

DEBIASING AND THE ABORTION DEBATE: AN ANALYSIS OF INTEGRATIVE
COMPLEXITY

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By

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ABSTRACT

Research has indicated that partisan polarization is growing, and while partisanship itself is not inherently destructive, unchecked polarization may debilitate the healthy functioning of the American democracy. Additional research indicates that citizens and politicians are subject to motivated reasoning, which may serve to spur further polarization. In response, the current study represents an attempt to mitigate the cognitive biases related to motivated reasoning. A between-groups, online survey experiment was performed in order to test the debiasing technique of accountability by measuring the integrative complexity of participants' expressed opinions on abortion. The hypothesis that the intervention would cause greater integrative complexity in the treatment group in comparison to the control was found to be null. However, the difference in the mean scores of integrative complexity was significantly moderated by political knowledge. Implications of the results for future debiasing in the online context attempts are discussed.

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INTRODUCTION

Research by scholars such as Lilliana Mason and Sean Westwood has demonstrated how the American public is increasingly antagonistic and polarized along partisan and ideological lines. One consequence is that partisans are becoming increasingly invested in their side winning over finding any mutually satisfying compromise. The long-term consequences of this sort of us vs. them mentality could be dire for the well-being of American democracy. One hallmark of representative democracy is citizen participation in political decisions. However, research on motivated reasoning and cognitive biases has shown how individuals often have directional rather than accuracy goals; that is to say, they are motivated to seek out and believe evidence that confirms their beliefs and discredit counter-evidence.¹

An important question then remains: can we reduce or mitigate motivated reasoning? Is it possible for individuals to be “debiased”? One element to consider is whether or not we can encourage complex thinking, or decisions that integrate "arguments of different sides" and "can be well justified by substantive reasons" as per Colombo.² In practice, this might manifest as a willingness to appreciate but not necessarily agree with counter arguments. The current study investigated into one widely supported debiasing intervention, accountability, and whether it has an impact on the complexity of individuals' thinking as measured through integrative complexity. To do so, a between-groups, online survey experiment was performed to measure the complexity of the American public's thoughts on the politically divisive topic of abortion. The hypothesis is as follows: *accountability will result in greater integrative complexity than a control condition.*

¹ Kunda, “The Case for Motivated Reasoning.”

² Colombo, “Hearing the Other Side,” 25.

BACKGROUND

Theories of Democracy

Fundamental to democracy is the idea that power resides with the people, as evidenced by the Greek roots *dēmos* (people) and *krátos* (rule or power). Originating 2,500 years ago in the city-state of Athens as a form of direct participation, democracy enabled a relatively small population of eligible voters with the power to reach decisions on policy. Inevitably, democracy has transmuted over time into a variety of contemporary iterations. Within large democracies such as that of the United States, scale-up issues associated with massive populations have resulted in the adoption of representative democracy, a system wherein voters elect representatives to make decisions on their behalf.³ Altogether, the ideal form of democracy is the “inclusion of all affected by collective decisions.”⁴

In contrast to a direct democracy, citizens within a representative democracy have limited access to the decision-making that directly produces legislation and policy. It may be necessary to deliberate on the appropriate role of the citizen in the representative model. Several nuances in the interpretation of this role exist across the literature. For example, proponents of elite theories of democracy contend that citizens are primarily involved through and necessarily limited to regular participation in elections; otherwise they become spectators to the actions of the political elite.⁵ Alternatively, pluralist theorists focus on how citizens can, and must, participate in

³ Moghaddam, *The Psychology of Democracy*.

⁴ Urbinati and Warren, “The Concept of Representation,” 407.

⁵ Biegelbauer and Hansen, “Democratic Theory and Citizen Participation.”

organizations that represent their political interests as a way to maximize their influence. This sentiment is echoed by Urbinati and Warren, who state that “participation and representation are complementary forms of citizenship” and argue that to be more inclusive, representation should move beyond elections and encompass more of the informal and discursive elements of the public sphere.⁶ Differences aside, however, the idea that citizens are expected to express their preferences in some capacity is relatively axiomatic across theories of democracy.

The other foundational element of a representative democracy is the responsiveness of the state to its citizens’ expressed preferences. Implicit within the aforementioned elite theories of democracy is the assumption that political elites are largely un beholden to citizens’ various preferences. While that argument may have validity, elected officials nonetheless have incentives to be responsive to their constituents. As per the Mayhewian model, re-election is the highest priority of the congressperson.⁷ Despite the caveat that this model gives a somewhat unidimensional ascription of motivation, it follows that holding office is an exceptionally compelling goal as it enables the realization of a politician’s policy goals. Thus, it is in their best interest to be responsive to citizens, as voters have salient influence on election results. Doubtlessly politicians’ responsiveness can be complicated by term limits, which can act as a cross-pressure incentivizing them to take whatever actions necessary to further their policy goals in the limited time they have. While the specific strategy a politician employs (e.g. whether they prioritize re-election) may have an influence on their degree of responsiveness, in essence citizen

⁶ Urbinati and Warren, “The Concept of Representation,” 387.

⁷ Mayhew, *Congress: The Electoral Connection*.

preferences ultimately are a necessary and influential component of the representative democratic system.

Actualized and Deliberative Democracy

As referenced previously, several theories of democracy have elaborated in detail over the relationship between citizens and the government, and what it is, can, and ought to be. One such deliberation is offered by Moghaddam on what is termed actualized democracy.⁸ While it is perhaps tempting to view democracy as an all-or-nothing phenomenon, Moghaddam presents a spectrum with pure dictatorship and pure democracy on opposite ends. In particular, democracy is specified as a model of government that incorporates the following components: leaders who are removable through popular will and responsive to wishes of citizens, rule of law, freedom of expression, minority rights, independent judiciary, universal suffrage, meritocracy, and distributive justice. An actualized democracy, therefore, is the state in which all of these components are sufficiently met. While many modern governments are classified as democracies, Moghaddam points out how contemporary democracies—including the United States—have substantial room for improvement in some or all of these areas.

More explicitly, actualized democracy is described as “the full, informed, equal participation in wide aspects of political, economic, and cultural decision making independent of financial investment and resources.”⁹ While the world has yet to produce a full-fledged, actualized democracy, Moghaddam argues that a democracy must nonetheless purposefully work

⁸ Moghaddam, *The Psychology of Democracy*.

⁹ Moghaddam, 4.

towards becoming actualized to be healthy. Additionally, he notes that progress is not inevitable: “we must continually be reminded that societal movement has not always been, and will not always be, in a forward direction. All societies are in a state of flux, and there is no inevitability about the direction of future change.”¹⁰ In other words, movement towards actualization is not guaranteed and instead requires intentional cultivation.

The concept of actualized democracy is compatible with deliberative democracy, or the idea that citizens and their representatives must justify their decisions.¹¹ Deliberative democracy can more comprehensively be defined as “a form of government in which free and equal citizens (and their representatives) justify decisions in a process in which they give one another reasons that are mutually acceptable and generally accessible, with the aim of reaching conclusions that are binding in the present on all citizens but open to challenge in the future.”¹² Four important elements of deliberative democracy are thus the requirement to give a reason, the accessibility of said reasoning for all, a decision that is binding for some period of time, and the reiterative nature of the overarching process. Alternatively, a simpler definition is the state in which citizens are effectively motivated to really think about issues.¹³ This echoes a tenet of actualized

¹⁰ Moghaddam, 9.

¹¹ Gutmann and Thompson, *Why Deliberative Democracy*.

¹² Gutmann and Thompson, 7.

¹³ Fishkin, *When the People Speak*.

democracy: “central to an actualized democracy is an education system that develops critical thinking skills in the general population and not just a select elite.”¹⁴

Within the deliberative model of democracy, it is at least implicitly expected that citizens will put significant consideration into their opinions. A succinct summary of what one such “considered opinion” might look like in a political context is offered by Colombo: “[an opinion] which integrates arguments of different sides and one which can be well justified by substantive reasons.”¹⁵ On a similar vein, Moghaddam has delineated statements characteristic of citizens within an actualized democracy, such as: “I could be wrong,” “I must critically question everything—including the sacred beliefs of my society,” “I must revise my opinions as the evidence requires,” “I must seek to understand those who are different from me,” “I can learn from those who are different from me,” and “I must seek information and opinions from different sources.”¹⁶ While this is not a comprehensive list of Moghaddam’s statements, it demonstrates how actualized democracy aligns well with the idea of considered opinions and deliberative democracy.

Citizen “Incompetence,” Motivated Reasoning, and Psychological Basis

Citizen “Incompetence” and Motivated Reasoning

The discussion of citizen capacity has been a recurring topic across the political science literature. According to Converse, citizens have “non-attitudes” in that they do not have true

¹⁴ Moghaddam, *The Psychology of Democracy*, 4.

¹⁵ Colombo, “Hearing the Other Side,” 25.

¹⁶ Moghaddam, *The Psychology of Democracy*, 25.

opinions; instead their opinions are easily moved and manipulated.¹⁷ Zaller takes a compatible stance and argues that the context in the moment plays a huge role, or that citizens use readily accessible, “top of the head” information when making decisions.¹⁸ Additionally, it appears that it is difficult to effectively motivate citizens to become informed, largely due to “rational ignorance”: having only one opinion in millions means spending the time and energy to become informed is pointless.¹⁹ If time is viewed as a limited resource, this may be largely due to the substantial amount of time required to gain sufficient knowledge and make informed decisions.²⁰ It follows, then, that citizens would follow cues from parties and political elites or otherwise take mental shortcuts to maximize use of a limited resource. Nonetheless, as Colombo has pointed out, citizen competence tends to be measured through an individual’s degree of political sophistication (or the level of interest in, attention to, and knowledge of politics).²¹

One criticism of democracy is that citizens should not have access to any form of decision-making power given their so-called “incompetence,” or lack of knowledge and expertise. A prevalent normative ideal of democracy is for citizens to approach issues from a rational standpoint, weighing all information evenly and subsequently basing their voting decisions on an unbiased evaluation of the best option. Complicating this ideal, several

¹⁷ Converse, “The Nature of Belief Systems.”

¹⁸ Zaller, *The Nature and Origin of Mass Opinions*.

¹⁹ Fishkin, *When the People Speak*.

²⁰ Brady, Verba, and Schlozman, “Beyond SES.”

²¹ Colombo, “Hearing the Other Side.”

researchers have demonstrated how voters can be manipulated in a multitude of ways. Chong and Druckman report how framing effects—the ways in which issues are described and presented—can have an impact on voting behavior, depending on the presence of competing frames and the individual’s base level of knowledge on the issue.²² Furthermore, Druckman, Fein, and Leeper have shown that when researchers move away from “captive audiences” and individuals are given the ability to choose their own sources of information, the first frame encountered persists across time.²³ Yet again others display the determinative effect partisanship has on voter behavior, wherein subjects are more likely to be influenced by frames endorsed by their party and often change their attitudes to fit with their party;²⁴ this is in contrast to the revisionist ideal that voters update party ties in response to new information.²⁵

Arguably, concerns based on citizen “incompetence” may warrant some attention, but it would be disingenuous to imply that citizens are the only population subject to sources of bias. For example, motivated reasoning is a demonstratively pervasive phenomenon across groups. Motivated reasoning is based around the idea of directionality, or that individuals tend to prioritize directional goals over accuracy goals. In other words, individuals are more likely to reach a conclusion they want to arrive at, though this is constrained by their ability to generate

²² Chong and Druckman, “Framing Public Opinion.”

²³ Druckman, Fein, and Leeper, “A Source of Bias.”

²⁴ Slothuus and deVreese, “Political Parties.”

²⁵ Carsey and Layman, “Changing Sides or Changing Minds.”

seemingly reasonable justifications.²⁶ In contrast to the normative implications of politicians' greater expertise, recent research suggests that politicians are even more prone to motivated reasoning than citizens; that is, they are more likely to maintain their preexisting beliefs in response to counter-evidence due to the powerful incentives to please their constituents.²⁷ As such, this may justify Schudson's idea of the monitorial citizen: the average politician is not trustworthy and consequently citizens must monitor politicians' activity.²⁸ However, it is reasonable to emphasize the necessity of paying close attention to the decisions of both citizens and politicians, as neither are immune to motivated reasoning.

Psychological Basis

It may be enlightening to delve into the psychological underpinnings of motivated reasoning, which can be envisioned as belonging to a wider set of phenomena termed cognitive biases. Stemming from the literature on human reasoning and decision-making, cognitive biases can be summarized as systematic deviations from rationality. As stated by Haselton, Nettle, and Andrews, "where biases exist, individuals draw inferences or adopt beliefs where the evidence for doing so in a logically sound manner is either insufficient or absent."²⁹ Contextually, the model of rational choice has historically been a dominant theory concerning human judgment. Aristotelian in origin and prevalent within fields such as economics, this model contends that the

²⁶ Kunda, "The Case for Motivated Reasoning."

²⁷ Christensen and Moynihan, "Motivated Reasoning."

²⁸ Schudson, *The Good Citizen*.

²⁹ Haselton, Nettle, and Andrews, "The Evolution of Cognitive Biases," 725.

average individual is a rational actor who makes choices between options by balancing the probability of any given outcome with its derived utility. However, rational choice was criticized for failing to adequately acknowledge human limitations. One such criticism resulted in what is termed bounded rationality: people make rational choices when possible but are constrained by limited search and computational capacities.³⁰ While a “great rationality debate” has been ongoing between supporters of different rationality models as to whether humans are fundamentally rational or prone to error, one particular perspective spearheaded by researchers Daniel Kahneman and Amos Tversky has been particularly groundbreaking.³¹

Through a series of papers written in the late 1960s and early 1970s, Kahneman and Tversky expanded upon the idea bounded rationality into a delineation of heuristics and biases that individuals employ when making judgments in the presence of uncertainty: “people rely on a limited number of heuristic principles which reduce the complex tasks of assessing probabilities and predicting values to simpler judgmental operations.”³² It is this perspective that grew into the notion of cognitive biases, or systematic deviations from rationality that can occur when humans use mental shortcuts. Of the critics of the heuristics and biases approach, one of the most noteworthy voices has been Gerd Gigerenzer, who has pointed out that mental shortcuts are utilized to streamline information and allow for better inferences, and altogether have been

³⁰ Gilovich, Griffin, and Kahneman, *Heuristics and Biases*.

³¹ Stanovich, *Rationality and the Reflective Mind*.

³² Tversky and Kahneman, “Judgement under Uncertainty,” 1124.

advantageous across human evolutionary history.³³ As summarized by Gilovich, Griffin, and Kahneman however, evolutionary utility derived from optimally performing survival-critical tasks is not incompatible with the heuristics and biases approach: “evolutionary pressures lead to adaptations that are as good or better than a rival’s; they do not lead to adaptations that are optimal.”³⁴ Even when accounting for an assessment of evolutionary pressures, human decision-making still falls short of the rationalist ideal.

Another product of the cognitive biases literature that can speak to motivated reasoning is known as the dual-processing theory. In sum, the dual-processing theory transforms the alternative approaches of rationality from being contradictory models of human behavior into a model of simultaneous and complementary, yet distinct modes of information processing. These two modes have been described as track 1 and track 2 thinking. Track 1 is associative, rendering quick holistic judgments and is always in operation, not only when motivation is low and judgments are mentally inexpensive. Alternately, track 2 is deliberative and rule-based, often supplementing and sometimes overriding track 1. Errors in judgement can arise when track 1 is used to process complex information or stimuli that would be more appropriately and effectively processed with track 2. While heuristics do not necessarily have inherent valence and arguably function effectively a majority of the time, as stated by Tversky and Kahneman they can result in poor decision-making: “in general, these heuristics are quite useful, but sometimes they lead to

³³ Gigerenzer and Todd, *Simple Heuristics That Make Us Smart*.

³⁴ Gilovich, Griffin, and Kahneman, *Heuristics and Biases*, 9.

severe and systematic errors.”³⁵ This is especially crucial to recognize within high risk contexts, wherein errors in judgement can have dire consequences.

One cognitive bias that neatly complements motivated reasoning is known as confirmation bias. Confirmation bias is the tendency for individuals to both seek out and believe information that confirms prior beliefs, and otherwise ignore and discredit contradictory information.³⁶ As identified by Ditto and Lopez, this often manifests as a sort of motivated skepticism, wherein information consistent with a preferred conclusion is examined less critically than inconsistent information.³⁷ Altogether, confirmation bias can be regarded as the brain’s preference for familiar information. As it reduces cognitive strain by requiring less mental effort to analyze stimuli, it follows that familiar information would be preferable in the constant attempt to minimize expenditure of a limited resource.

All in all, as seen through the prevalence of cognitive biases across human reasoning, it follows that motivated reasoning and/or confirmation bias can be indiscriminately witnessed across the electorate and political elite. While cognitive biases often result in errors in judgement, they are in many ways an inevitable output of an otherwise functioning system. Thus rather than criticizing the entire theory of democracy and pushing to remove decision-making power from “incompetent” civilians, it may be worthwhile to consider whether cognitive biases

³⁵ Tversky and Kahneman, “Judgment under Uncertainty,” 1124.

³⁶ Nickerson, “Confirmation Bias.”

³⁷ Ditto and Lopez, “Motivated Skepticism.”

can be mitigated. This is especially pertinent, given that confirmation bias in particular has been described as “the bias most pivotal to ideological extremism and inter- and intragroup conflict.”³⁸

Affective Polarization

One prominent matter cognitive biases can potentially speak to is polarization, or the increasing amount of distance between partisans along the left-right political spectrum. It is a common view that polarization is on the rise in the United States. However, the literature would seem to disagree on whether this is true. Some scholars have referred to relative stability of partisan issue-positions to demonstrate a distinct lack of polarization within the past 50 years. Others point out, however, how congressional agreement on legislation across the political aisle has markedly decreased.³⁹ This discrepancy has, perhaps in part, been explained by the partisan realignment of the south during the Civil Rights Era, and by the policies adopted by Newt Gingrich in 1995. These resulted in a reduction of cross-party friendships within the House of Representatives.⁴⁰ However, this does not paint a clear picture on the presence of polarization.

In response to this discrepancy, some scholars have sought to reconceptualize polarization. Mason argues that different perspectives on polarization can be simultaneously correct as they measure different concepts.⁴¹ Specifically, she differentiates between issue position polarization, or the increase in issue position extremity, and behavioral polarization,

³⁸ Lilienfeld, Ammirati, and Landfield, “Giving Debiasing Away,” 391.

³⁹ Layman, Carsey, and Horowitz, “Party Polarization in American Politics.”

⁴⁰ Haidt, *The Righteous Mind*.

⁴¹ Mason, “The Rise of Uncivil Agreement.”

which is characterized by an increase in partisan affiliation strength, partisan bias (e.g. viewing one's preferred party's actions as more praiseworthy even when the parties behave similarly), activism, and anger towards the opposing party. Furthermore, she finds evidence that issue position extremity has not been growing, as the majority of Americans have similar or moderate opinions that have not increasingly drifted apart. Despite this, behavioral polarization and simple dislike of the other party appears to be on the rise, resulting in an American electorate that increasingly views the opposing party as an out-group. Overall, by dividing polarization into separate concepts, the paradoxical increase and lack thereof in polarization can be understood.

Mason's behavioral polarization is closely related to the concept of affective polarization, the "phenomenon of animosity between the parties," which operates within the mass public and is conceptually separated from the disagreements political elites have over policy issues.⁴²

Iyengar and Westwood find that partisanship evokes greater discrimination against the out-group than discrimination elicited by race, the most salient social divide in America, which supports the idea that party identification is more affective than instrumental or ideological.⁴³ This is reflected by recent research from the Pew Research Center in which 86% of Americans said that partisan conflicts were either strong or very strong in comparison to 65% who said the same for conflicts between blacks and whites; furthermore, those saying partisan conflicts were *very* strong (64%) were more than twice the number of those who felt there were *very* strong conflicts between

⁴² Iyengar et al., "The Origins and Consequences," 1.

⁴³ Iyengar and Westwood, "Fear and Loathing."

blacks and whites (27%).⁴⁴ Overall, whether specified as social, behavioral, or affective polarization, the increase in partisan dislike as distinct from issue-position extremity is a demonstratively growing phenomenon among the American public.

It may be important to acknowledge that partisanship is not inherently negative. As pointed out by Layman, Carsey, and Horowitz, in recent years American parties have become more internally consistent, ideologically distinct, and altogether easier for the public to recognize.⁴⁵ Within a functioning democracy, a clear difference between party platforms is a prerequisite for the adequate representation of a diverse population. In other words, political parties are meant to help streamline citizen decision-making by having unambiguous policy stances and resultantly enable citizens to elect officials who represent their interests and implement specific policy. This echoes back to Urbinati and Warren who bear witness to a shift towards more inclusive representation.⁴⁶ Otherwise, partisanship and its associated polarity encourages extensive deliberation over legislation that helps to prevent harmful outcomes from short-sighted policy. Within reason, a mild polarization may thus have utility.

Nonetheless, given the pervasive influence of party identification as a group identity and psychological research on intergroup dynamics such as the minimal group paradigm and social identity theory, unchecked polarization has the potential to be harmful.⁴⁷ For instance, Kalmoe

⁴⁴ Pew Research Center, “86% of Americans.”

⁴⁵ Layman, Carsey, and Horowitz, “Party Polarization in American Politics.”

⁴⁶ Urbinati and Warren, “The Concept of Representation.”

⁴⁷ Tajfel and Turner, “An Integrative Theory.”

and Mason have recently extrapolated upon the potentially violent ramifications of partisanship.⁴⁸ While they found that only 5-15% of survey respondents reported “schadenfreude” (defined in the study as less sympathy over partisan opponents’ death) or endorsed partisan violence, these respondents displayed an extreme hostility that has been otherwise unaccounted for across the scholarly literature. Furthermore, they point out how violence spurred by political division is not beyond the realm of possibility and has already been witnessed in American history: principally, the American Civil War. Even if the circumstances of that conflict do not greatly resemble contemporary polarization, ideological extremism can trigger violence in any context. While partisanship and ideological extremism are not inherently concomitant, the biased, belief-reinforcing mechanisms outlined by psychology in combination with the violence often condoned by ideological extremism means the growth of affective polarization may be a legitimate cause of concern.

Altogether, the current political situation has often devolved into a contest in which partisans are more focused on winning than reaching a mutually beneficial solution. For instance, in research on political bargaining, Groseclose and McCarty found that even when presented with an outcome mutually preferable the status quo, members of both parties remained unamenable to the outcome, instead prioritizing defeating the opponent.⁴⁹ Congressionally this can lead to unproductive consequences such as gridlock. Furthermore, given the influence the

⁴⁸ Kalmoe and Mason, “Lethal Mass Partisanship.”

⁴⁹ Groseclose and McCarty, “The Politics of Blame.”

masses can have on politicians' decisions, affective polarization may be worthy of closer attention.

Though not necessarily the sole instigator, motivated reasoning and confirmation bias inevitability play a role in polarization. If both sides of the political aisle tend to ignore contradictory information, particularly that regarding the electorate's perceptions of the opposite party, this only serves to further entrench their respective positions, prevent compromise, and allow for ideological extremism and subsequently even violence. Ultimately, without compromise democracy cannot adequately function.

Debiasing

If one holds that 1) citizens and governments within representative democracies are in a mutual relationship, 2) individuals are inevitably subject to motivated reasoning, 3) healthy democracies should aim to foster considered opinions, and 4) affective polarization is a potentially harmful phenomenon, what should or can be done in response? If it is true that "the consideration of different viewpoints and alternative arguments, as well as the ability to justify one's position, [is] a desirable standard for citizens' participation in democratic decisions," how can we encourage a willingness to at least hear alternative perspectives without derision?⁵⁰ One potential answer is debiasing, the attempt to stem cognitive biases. In comparison to the amount of research focused on identifying various cognitive biases, relatively little has concentrated on how to stop or prevent them.⁵¹ The question posed by Lilienfeld, Ammirati, and Landfield is thus

⁵⁰ Colombo, "Hearing the Other Side."

⁵¹ Lilienfeld, Ammirati, and Landfield, "Giving Debiasing Away."

exceptionally pertinent: “Can scientific psychology promote human welfare by debiasing the general public?”⁵² Given the pervasive and enduring reach of cognitive biases, it may not be possible to explicitly remove cognitive biases; therefore, it is likely more efficacious to focus on mitigating them. Altogether, “the goal of debiasing techniques should be to help people grasp and appreciate alternative points of view, not necessarily to accept them as equally valid or moral.”⁵³

Research on the viability of debiasing is somewhat mixed as its success has been dependent on the intersection of various factors, including the type of bias and type of technique utilized.⁵⁴ Overall, many debiasing techniques focus on shifting cognitive processing from the automatic track 1 to the rule-governed track 2 thinking.⁵⁵ One method has focused on teaching reasoning and formal logic to encourage the shift to track 2 processing. On one hand, Willingham argues critical thinking is difficult to teach because it is not a context-free skill that can be utilized at any moment, and its success depends on domain knowledge and practice.⁵⁶ Conversely Nisbett et al. find some promise in successfully teaching reasoning skills that are generalizable beyond specific domains.⁵⁷ In subsequent studies however, teaching rules of

⁵² Lilienfeld, Ammirati, and Landfield, 393.

⁵³ Lilienfeld, Ammirati, and Landfield.

⁵⁴ Arkes, “Costs and Benefits of Judgment Errors.”

⁵⁵ Arkes.

⁵⁶ Willingham, “Critical Thinking.”

⁵⁷ Nisbett et al., “Teaching Reasoning.”

formal logic was found to have a non-significant impact on confirmation bias.⁵⁸ It would appear that education on reasoning alone is insufficient to significantly reduce biases. Another approach has been to provide basic education on cognitive biases, but this is complicated by the bias blind spot, individuals' tendency to recognize cognitive and motivational biases in others more readily than within themselves.⁵⁹ Thus successful debiasing interventions likely need to move beyond basic education.

Nonetheless, some debiasing techniques have gained traction. Within clinical medicine, checklists have been met with a degree of success in reducing diagnostic error by compelling doctors into paying closer attention (i.e. using track 2 processing).⁶⁰ Checklists are obviously not viable within all contexts, but their success demonstrates the potential utility of debiasing techniques. One such technique is known as the consider-the-opposite strategy in which individuals are induced to consider alternative perspectives in order to decrease the cognitive strain of encountering information that is unfamiliar and contradictory to their own perspective. While some have found this technique to be viable, others such as Colombo have reported insignificant effects of consider-the-opposite on reducing biases.⁶¹ Another technique that has shown promise is known as accountability, "a mechanism relating an account-giver to an account

⁵⁸ Lilienfeld, Ammirati, and Landfield, "Giving Debiasing Away."

⁵⁹ Pronin, Lin, and Ross, "The Bias Blind Spot."

⁶⁰ Prakash, Sladek, and Schuwirth, "Interventions to Improve Diagnostic Decision Making."

⁶¹ Colombo, "Hearing the Other Side."

holder, which should have an impact on the decisions and behaviors of the account-giver.”⁶² In other words, participants are made aware that they will be held accountable for their opinions, which in turn serves as the mechanism to induce greater deliberation over one’s opinions. Ultimately, despite the burgeoning success of debiasing techniques, research on the specific conditions under which it is optimally viable is still relatively underdeveloped.

⁶² Aleksovska, Schillemans, and Grimmelikhuijsen, “Lessons From Five Decades.”

METHODOLOGY

Accountability and Integrative Complexity

The current study was largely modeled after the research performed by Colombo within the context of the Scottish independence referendum, wherein two debiasing techniques were used to induce greater complexity of thinking regarding a controversial political topic. Regarding the debiasing technique of accountability, Colombo reported:

Accountability – that is, the pressure to justify one’s opinion to others – was found to ‘motivate complex (effort-demanding) information processing by increasing the importance of avoiding “bad” judgements (embarrassment, loss of self-esteem) and of making “good” judgements (praise, status)’ (Tetlock, 1983: 74). Subjects expecting accountability were found to be more likely to consider various options, more receptive to new evidence, more tolerant for inconsistency and to focus more on the content of a message than on its source.⁶³

As mentioned earlier, Colombo found that the second debiasing technique of consider-the-opposite had insignificant effects. Given the relative success of accountability mechanisms across the research literature and Colombo’s success in inducing greater thought complexity within a political context, the current study used accountability in order to encourage the development of considered opinions within the American political context.

In order to induce thought complexity, the presence of considered opinions was gauged through a measure known as integrative complexity. As described by Suedfeld, Tetlock, and

⁶³ Colombo, “Hearing the Other Side,” 23.

Streufert, integrative complexity is a measure of information processing and decision making complexity that focuses on structure over content.⁶⁴ The measure looks for the presence of two elements: 1) differentiation, the perception of different characteristics or dimensions that belong to an issue and/or the taking of different perspectives when approaching an issue, and 2) integration, the development of complex connections among the differentiated dimensions, characteristics, and/or perspectives. Therefore, differentiation is a prerequisite for integration. Integrative complexity is scored on a scale of 1-7 where scores 4 and above indicate the presence of integration; the larger the number, the greater the complexity. Altogether, the type of information processing that is measured through integrative complexity aligns well with the ideal of the deliberative citizen.

Experimental Design

The hypothesis of the study is *accountability will result in greater integrative complexity than a control condition*. In order to test this hypothesis, a between-groups survey experiment was conducted. All participants answered demographic questions, a political knowledge test, and were prompted to write a paragraph expressing their opinions on abortion. Abortion is a controversial topic that often provokes divisive discourse within the American public. Furthermore, abortion has been shown to be tied to partisan polarization.⁶⁵ Thus abortion was chosen to study thought complexity relevant to the polarization within the American political sphere. The demographic questions asked for the participants' age, gender, race, and partisan

⁶⁴ Suedfeld, Tetlock, and Streufert, "Conceptual/Integrative Complexity."

⁶⁵ Stimson, *Tides of Consent*.

alignment. Research performed by Taber, Cann, and Kucsova suggests that political sophisticates may be more prone to biases than the average individual.⁶⁶ As political knowledge is often used to measure an individual's degree of sophistication, it was included in the study and measured through a five question index developed by Delli Carpini and Keeter.⁶⁷ The question order was randomized, except for the abortion paragraph prompt which was last.

Participants were randomized into either the treatment or control condition. Regardless of condition, all participants were given identical instructions to describe their position on the abortion debate in 4 to 5 sentences; they were likewise given the same summary of the abortion debate. This was adapted from the paragraph completion test, in which subjects either write brief responses based on a sentence or complete an essay on a particular topic.⁶⁸ The script for the prompt was influenced primarily by Tetlock, and the specific length of 4 to 5 sentences was modeled after Colombo.⁶⁹ The intervention was an induced expectation of accountability: those in the treatment group were given additional instructions that they would be participating in an online forum immediately after the survey. They were also explicitly informed they would be required to explain and justify their opinion to other participants. Tetlock found that participant responses were more genuine when the positions of the other discussants were unknown, as

⁶⁶ Taber, Cann, and Kucsova, "The Motivated Processing of Political Arguments."

⁶⁷ Delli Carpini and Keeter, "Measuring Political Knowledge."

⁶⁸ Suedfeld, Tetlock, and Streufert, "Conceptual/Integrative Complexity."

⁶⁹ Tetlock, "Accountability and Complexity of Thought"; Colombo, "Hearing the Other Side."

individuals have the tendency to shift their explanations to match that of others.⁷⁰ Thus, in the current study's prompt, the position of the other participants in the forum was purposefully left unstated. However, the online forum was in truth a deception and no discussion took place. In contrast, those in the control condition only received the instructions to describe their position and had no reason to believe their opinions would be seen by anyone else. In order to ensure informed consent, all participants were given the option to withdraw from the study before the survey and post the debrief. For the full survey script, please see the Appendix.

Coding and Content Analysis

Participants' answers to the demographic questions, political knowledge test, and abortion paragraph prompt comprise the data. The demographic questions were coded in the dataset as integers: 1-8 for race, 1-7 for age, 1-4 for gender, and 1-7 for partisanship (please see the coding key in the Appendix for labels). The answers to the political knowledge test were coded as 1 for the correct answer and otherwise as 0.⁷¹ As per the integrative complexity scoring manual, integrative complexity was coded on a scale of 1-7.⁷² More specifically, a score of 1 indicates the absence of differentiation or integration, a score of 3 indicates moderate to high differentiation but no integration, a score of 5 indicates moderate to high differentiation and moderate integration, and finally a score of 7 indicates high differentiation and high integration. The scores of 2, 4, and 6 represent the transitional levels. The manual also stressed that when

⁷⁰ Tetlock.

⁷¹ Price and Zaller, "Who Gets the News."

⁷² Baker-Brown et al., "The Conceptual/Integrative Complexity Scoring Manual."

coding it was important to be neutral, not interpreting a particular score or end of the scale as better than the other. Again, as per the scoring manual, unscorables were removed from the dataset. Coding was performed in as few sittings as possible over the course of three days, but scoring sessions were spread out so as to avoid mistakes from boredom and fatigue. The integrative complexity manual was continuously referenced during coding to avoid scorer drift. Scores were recorded on a scoring sheet.

Following the self-training guidelines outlined within the *Motivation and Personality: Handbook of Thematic Content Analysis*, over 15 hours were spent coding 180 practice samples to learn to how to code integrative complexity.⁷³ Training occurred slowly over a few weeks in multiple sittings to thoroughly learn the new technique and to avoid mistakes from fatigue. To adequately match the ratings of an expert scorer, category agreement was analyzed regarding the presence of each score. For the ratings of unscorable, 1, 2, 3, and 4, category agreement reached at least 80%. The one exception was the score of 6, as across all 180 samples, only one sample received the score. The expert scorers did not assign any scores of 5 or 7.

Due to the immense amount of time and effort required to learn this coding technique, only one rater analyzed the current study's data. Future revisions of the study will include a second rater so as to obtain greater interrater reliability.

Sourcing Participants

Participants were sourced from Amazon Mechanical Turk (AMT), a crowdsourcing platform where “workers” in AMT lingo can find and choose to respond to a human intelligence

⁷³ Smith and Franz, “Appendix I.”

task (HIT) created by a “requester.” For inclusion in the study, individuals had to be adults within the United States, which was ensured through AMT’s option to limit workers by country. Individuals must also be over 18 to use AMT. The actual survey was hosted on SurveyMonkey (SM) and accessed through a link provided on the AMT task page. Within AMT the number of workers was capped at 250; SM was not capped because the platform tracks all respondents who at least begin the survey, not just those who finish. While the task was expected to take no more than 10 minutes, participants were given 30 minutes to finish so as to prevent time-related stress. To avoid making the goal of the research salient, the task was advertised in AMT as an “abortion survey.” The survey was password protected, and after finishing the SM survey, participants were randomly given one of twenty codes to signify completion that was then used to fulfill the AMT portion and receive a monetary award (twenty is the maximum number of randomized paths that SM allows). For finishing the task in AMT, each participant was given a monetary award of \$0.50.

There have been some concerns that AMT can be exploitative of vulnerable populations such as minimum wage workers. Keeping this in mind, the reward amount was chosen to make it worth participants’ time but not be so attractive that it disproportionately incentivized workers. In other words, researchers have experienced difficulties in collecting data when promising high value rewards, as it often attracts workers who rush through the task to receive the reward and often purposefully provide low quality, irrelevant, or unviable answers. Though AMT provides the option to limit a task to “masters”—workers who have demonstrated a certain quality of answers—there have been issues with these workers being more familiar with common research theories and goals, which likewise can skew data.

Informed Consent

In line with the requirements outlined by the Institutional Review Board (IRB), subjects were provided with informed consent documentation prior to answering the survey and were debriefed at the end of the survey to explain the deception. They indicated their consent by answering a yes-or-no question and did so at the beginning and end of the study. Participants were informed that participation was voluntary and that they were able to leave the study at any time. Even if they withdrew their consent after reading the debrief, they were compensated for their time and effort. However, participants were warned that if they left the study prior to completion for any reason, they could not be compensated. Additionally, they were warned that compensation could not be guaranteed if they finished but deliberately ignored the prompt, did not answer at least half of the demographic and political questions, and/or did not answer the final question on abortion.

In truth, all participants who finished through AMT with the SM code were compensated to ensure that the participants who adequately answered the prompt received the reward; it was not possible to match the adequate answers to the worker as no mechanism exists to align the AMT worker number with the SM respondent number. Since participants often finished within seconds of one another, matching them through time of completion was likewise not possible. After worker task completions were approved, participants received the compensation to their AMT account. Ultimately, the study was classified as exempt by the IRB for posing minimal risk to participants.

RESULTS

After coding the data, removing unscorable, and deleting the responses of participants who removed their consent post debrief, 181 of the 250 observations were used for analysis. The dependent variable was integrative complexity; the observed scores ranged from 1-4 (i.e. none of the paragraphs received a complexity score of 5 or higher). Initial descriptive statistics of integrative complexity followed an expected pattern in that the bulk of the responses were neither differentiated nor integrated, and the frequency of each score decreased as complexity increased (see figure 1).

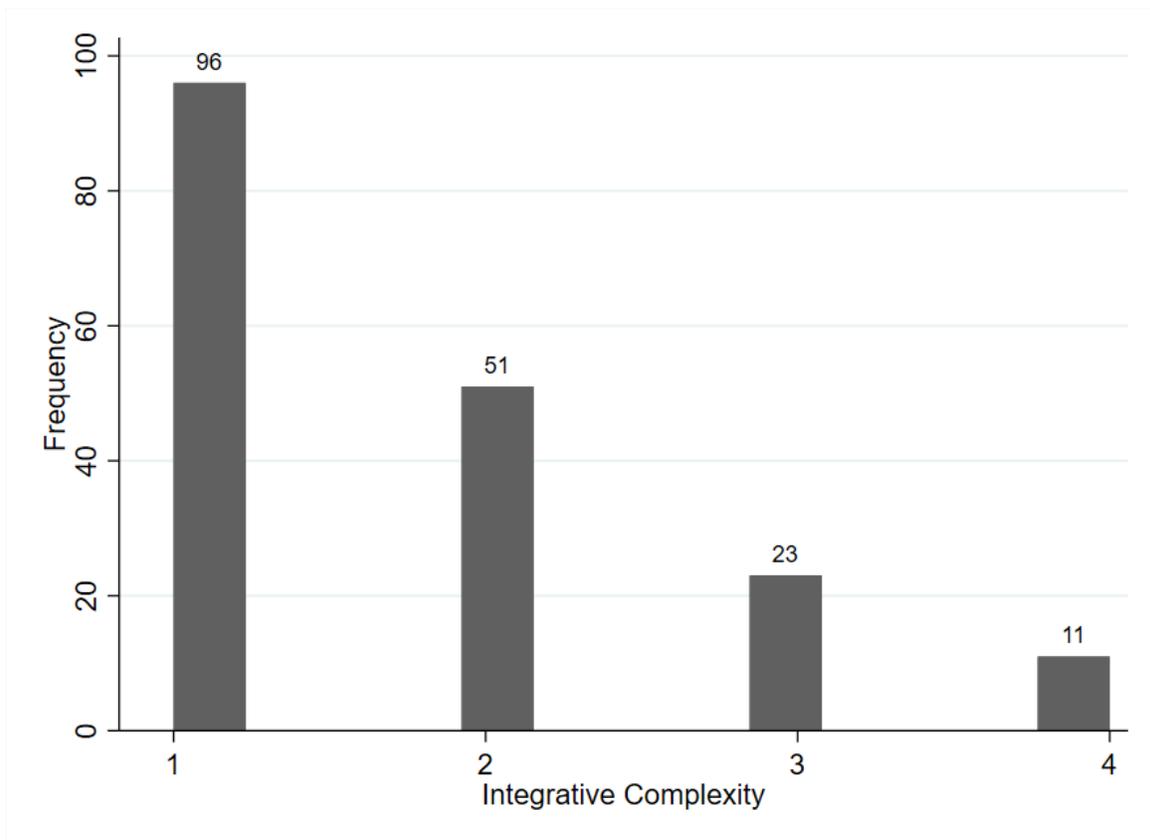


Figure 1. Histogram of integrative complexity scores

Note: 1=no differentiation and no integration; 2=transition between undifferentiated score of 1 and differentiated score of 3; 3=moderate to high differentiation but no integration; 4=implicit integration, transition between the lack of integration from the score of 3 and the explicit integration from the score of 5; zero observations had a score of 5, 6, or 7.

Table 3. T-test of integrative complexity by degree of partisanship

. ttest ic, by(part)

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
0	79	1.696203	.0992579	.8822237	1.498595	1.89381
1	102	1.735294	.0923458	.9326474	1.552105	1.918483
combined	181	1.718232	.0675426	.9086921	1.584955	1.851509
diff		-.0390916	.1365377		-.3085223	.2303391

diff = mean(0) - mean(1)

t = -0.2863

Ho: diff = 0

degrees of freedom = 179

Ha: diff < 0

Ha: diff != 0

Ha: diff > 0

Pr(T < t) = 0.3875

Pr(|T| > |t|) = 0.7750

Pr(T > t) = 0.6125

Note: 0=non-partisans; 1=democrats and republicans

Table 4. T-test of integration by degree of partisanship

. ttest integration, by(part)

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
0	79	.0506329	.0248248	.2206479	.0012105	.1000553
1	102	.0686275	.0251565	.254068	.0187238	.1185312
combined	181	.0607735	.0178076	.2395771	.0256349	.095912
diff		-.0179945	.0359814		-.0889967	.0530077

diff = mean(0) - mean(1)

t = -0.5001

Ho: diff = 0

degrees of freedom = 179

Ha: diff < 0

Ha: diff != 0

Ha: diff > 0

Pr(T < t) = 0.3088

Pr(|T| > |t|) = 0.6176

Pr(T > t) = 0.6912

Note: 0=non-partisans; 1=democrats and republicans

Table 6. T-test of integration by political knowledge

. ttest integration, by(pkqtotaldummy)

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
0	108	.1018519	.0292393	.3038634	.0438884	.1598153
1	73	0	0	0	0	0
combined	181	.0607735	.0178076	.2395771	.0256349	.095912
diff		.1018519	.0355967		.0316087	.172095

diff = mean(0) - mean(1) t = 2.8613
 Ho: diff = 0 degrees of freedom = 179

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0
 Pr(T < t) = 0.9976 Pr(|T| > |t|) = 0.0047 Pr(T > t) = 0.0024

Note: Groups indicate the total number of correct answers to political knowledge test; 0=scores 0-4; 1=score of 5

In sum, the results of the study indicate a null hypothesis as there was no statistically significant difference in the mean score of integrative complexity between the treatment and control groups. This finding was maintained when measuring specifically for integration. Likewise, no statistically significant difference in means was found when testing the influence of partisanship. However, a significant impact of political knowledge was observed. Participants with the highest political knowledge scores had statistically significant lower mean scores in integrative complexity; this effect was even more pronounced when analyzing the mean scores in integration.

DISCUSSION

Interpreting the Results

The finding of a null hypothesis could mean a number of things. One way to approach the null result would be to say that it does not contribute evidence to the successful impact of accountability mechanisms. Though this may seem to be awkward phrasing, it is important whenever performing research to stay away from definitive statements or claims of proof. Therefore, is more apt to talk in terms of evidence for or against a research conclusion. Even if the current study admittedly does not provide evidence in support of the hypothesis, it also does not carry enough weight to discredit the entire intervention strategy of accountability. However, it does perhaps speak to its success or lack-thereof within certain contexts.

The particular context currently in question is, quite simply, the internet. The null result may in part be a result of the lack of the pressure caused by the physical presence of researchers and/or fellow participants. As benign as this pressure may end up being, it still makes sense that physical presence has an impact, whether intended or not. Furthermore, the internet has a degree of anonymity that in-person interaction cannot match; even if personal information is kept private, for better or for worse visual recognition is an unavoidable factor in face-to-face research. One other possibility is that having a more representative sample means the results of this study represent a more accurate portrayal of accountability's success than research with smaller sample sizes. Admittedly 181 is not a large number, but in comparison to numbers closer to 40 or so, perhaps there is a meaningful difference. Of course, to confirm such a claim would require more research in the online context, but it is necessary to at least consider this possibility.

This research was performed online largely to access a wider and more representative swath of the American population than the liberal arts undergraduate students typical of most psychological research. However, by reaching out to participants online, this research may very well have ended up being particularly topical. If so, it was completely unintentional, as the formal research process began in the fall of 2019 and the initial brainstorm began even earlier. Given the new socially-isolated normal of the coronavirus pandemic—however long the isolation lasts—an increasing number of future studies may explicitly prioritize the online context. Thus, the current study may be even more timely than originally intended.

For the moment, if we treat these results as completely valid, there are several implications. These will be delved into with more detail below, particularly on how they are relevant to each of the theoretical assumptions and research theories outlined in the background section. After that, a discussion on the study's limitations will moderate the results and hopefully provide some candid conversation on the generalizability of the results.

Implications

Debiasing

The fundamental question is whether or not debiasing can successfully counter the cognitive biases that can lead to ideological extremism, and in turn, to destructive conflict. Even when considering the null results of the current study, it would be preemptive to generalize that debiasing is an ineffective method. Instead, this study perhaps helps speak to the overall debiasing conversation by specifying a context wherein certain debiasing interventions do not work optimally, or at least need to be altered beyond the stipulations of the current experimental

design. The results may also provide some evidence that saliently controversial issues such as abortion are particularly resistant to debiasing interventions.

There are additional barriers to debiasing that are important to recognize when evaluating the null results. Lilienfeld, Ammirati, and Landfield have identified factors that influence the success of debiasing; those most relevant to the current study are that individuals may be unreceptive to debiasing efforts because they do not perceive them as relevant to their personal welfare, as well as that individual differences in personality, cognitive styles, and developmental levels may play a role in the observed variance of debiasing's efficacy.⁷⁴ Their other identified factors of the bias blind spot, difficulty in teaching critical reasoning, hindsight bias, and backfire effect contributed to the formation of the current study's experimental design but have less of a direct relevance as confirmation bias was not directly being measured.

Focusing specifically on personality, cognitive styles, and developmental levels, it is important to acknowledge that individual differences can play an effect. While research typically accounts for variances across individuals by having large enough sample sizes to comfortably ascertain generalizability, it helps maintain integrity within research to at least acknowledge the potentially salient effect individual differences may have on debiasing efforts. Nisbett and colleagues found that formal reasoning is not developmentally prescribed, but others have found that debiasing interventions may not be effective for individuals incapable of abstract thinking.⁷⁵ Other personality variables such as need for closure, dogmatism, and openness to experience

⁷⁴ Lilienfeld, Ammirati, and Landfield, "Giving Debiasing Away."

⁷⁵ Lilienfeld, Ammirati, and Landfield.

may play a role. This is echoed by Moghaddam, who approaches open-mindedness as involving “the ability and willingness to seriously reconsider the merits and shortcomings of a current cognitive standpoint.”⁷⁶ Moghaddam also discusses tolerance for ambiguity, the research-supported idea that some are better at coping with ambiguity than others. This relates back to Lilienfeld, Ammirati, and Landfield’s discussion of cultural differences, particularly research that found Asian (e.g. Chinese) cultures were more open to holding seemingly contradictory views simultaneously.⁷⁷

Additional elements to consider are the situational factors that may influence an individual beyond arguably static features such as personality. According to Suedfeld, Tetlock, and Streufert, the integrative complexity viewpoint focuses less on the question of whether complexity is an inherent trait and more on the level of differentiation and integration demonstrated within a particular context, and the relationship between integrative complexity and environmental, interpersonal, and internal influences. They explicitly mention that “complexity is seen as changing in response to fatigue, stress, intrapsychic conflict, social factors (such as accountability and self-presentation), audience characteristics, and so on.”⁷⁸ Thus an online study that cannot control for situational context and only captures the complexity of an individual’s thought process within a particular moment may not be particularly reflective of debiasing’s overall success.

⁷⁶ Moghaddam, *The Psychology of Democracy*.

⁷⁷ Lilienfeld, Ammirati, and Landfield, “Giving Debiasing Away.”

⁷⁸ Suedfeld, Tetlock, and Streufert, “Conceptual/Integrative Complexity,” 394.

In the case of abortion specifically, the null results may also be in response to what is known as attitude inoculation: "...research on attitude inoculation (McGuire, 1962) suggests that exposure to weak versions of arguments may actually immunize people against these arguments, exposing people to alternative positions may be effective only to the extent that these arguments are presented persuasively."⁷⁹ While study participants were not actually exposed to alternative positions, it is plausible that the lack of integrative complexity was connected to the participants' perception of alternative positions as invalid and/or their inability to gestate persuasive alternative arguments. In fact, all-or-none thinking and the denial that reasonable others could hold different perspectives is characteristic of integrative complexity's score of 1. As the majority of the participants received this score and several even outright stated that specific perspectives within the abortion debate were completely invalid, it is possible that attitude inoculation from experiences prior to the current study (i.e. within the public sphere) had an effect. However, any potential significance is tempered by the null findings.

It is also important to explicitly recognize that being complex in thinking is not necessarily preferable in every context. As per Baker-Brown et al., "being complex in one's thinking is no guarantee of being correct."⁸⁰ When specifically approaching integrative complexity as a measure of bias, it may be difficult to ascertain whether thought complexity is actually reflective of a reduction in cognitive biases. While integrative complexity has been

⁷⁹ Lilienfeld, Ammirati, and Landfield, "Giving Debiasing Away," 394.

⁸⁰ Baker-Brown et al., "Scoring for Conceptual/Integrative Complexity," 402.

found to statistically interact with debiasing interventions, how perfectly this correlates to a reduction in specific biases requires more attention.⁸¹

Affective Polarization

The relevance of integrative complexity and cognitive biases to affective polarization is an additional topic that is important to consider. For instance, even if the ideals of deliberative democracy and considered opinions are reached, this does not necessarily mean there will be less observed affective polarization. Given the null results of the study, there is perhaps even less that can be reasonably claimed with certainty regarding this relationship. Nonetheless, perhaps the results give evidence to the idea that combating affective polarization requires more than cognitive strategies alone. The key word “affective” would seem to imply that the issue is emotionally charged. Thus a successful intervention may need to more explicitly integrate considerations of moods, feelings, and attitudes. Altogether additional strategies that have less of a focus on cognition alone are worth mentioning.

For example, Iyengar and Westwood theorize that the discrimination based on partisanship is due to the lack of egalitarian norms that would otherwise constrain the evaluation of partisan groups, whereas such norms apply to race-related behavior.⁸² One strategy to address issue is by creating norms against partisan discrimination. This is similar to a point mentioned by Abramowitz and Saunders that politicians’ behavior reflects the desires of their constituents.⁸³ In

⁸¹ Lilienfeld, Ammirati, and Landfield, “Giving Debiasing Away.”

⁸² Iyengar and Westwood, “Fear and Loathing.”

⁸³ Abramowitz and Saunders, “Ideological Realignment.”

order to combat affective polarization, then, the implication is that citizens need to protest the norms that reinforce uncivil politics. In a subsequent study, Iyengar et al. give a couple of recommendations for decreasing affective polarization: correcting misconceptions and shifting the salience of partisan identities, which both operate at the level of the mass public.⁸⁴ Even so, they conclude that these methods are not fool-proof and greater research on affective polarization is needed. The current study attempted to approach the issue in a similar manner to their first recommendation of correcting misconceptions, but has perhaps demonstrated that this sort of method alone is insufficient.

The moral psychologist Jonathan Haidt has described additional research that speaks to affective polarization and methods to combat it. He first presented the idea of a social intuitionist model wherein intuitions come first and strategic reasoning comes second. In other words, individuals tend to come up with post-hoc arguments to justify their quickly made, gut responses (or in terms of the dual-process theory, those made through track 1 processing). Additionally, he argued that over evolutionary history, morality served to not only bind human groups together, but also differentiate them from other groups. In his argument, humans are inherently groupish and make use of shared morals to create cohesion, but often to the point of perceived righteousness:

Morality binds and blinds. This is not just something that happens to people on the other side. We all get sucked into tribal moral communities. We circle around sacred values and then share post hoc arguments about why we are so right and they are so wrong. We

⁸⁴ Iyengar et al., “The Origins and Consequences,” 201.

think the other side is blind to truth, reason, science, and common sense, but in fact everyone goes blind when talking about their sacred objects.⁸⁵

Thus, when approaching political groups as those that have shared morals, it is understandable why a phenomenon such as affective polarization exists.

Haidt goes on to more explicitly describe the underpinnings of political polarization by referencing the predominance of Manichaeism. Originating with the Persian prophet Mani in the third century, the main crux behind Manichaeism is the idea that life is battle between absolute goodness and absolute evil. As per Haidt, “if you think about politics in a Manichaean way, then compromise is a sin. God and the devil don’t issue many bipartisan proclamations, and neither should you.”⁸⁶ In addition to the decrease in cross-party friendships among politicians and the technology that allows us to operate within information silos, or “isolate ourselves within cocoons of like-minded individuals,” Manichaeism has further propagated the sort of us-versus-them thinking that has contributed to affective polarization.⁸⁷

How should scientists then respond? In order to combat this Manichaeism, Haidt has proposed opening one’s heart: “If you can have at least one friendly interaction with a member of the ‘other’ group, you’ll find it far easier to listen to what they’re saying [...] You may not agree, but you’ll probably shift from Manichaean disagreement to a more respectful and constructive

⁸⁵ Haidt, *The Righteous Mind*, 364.

⁸⁶ Haidt, 362.

⁸⁷ Haidt, 363.

yin-yang disagreement.”⁸⁸ One caveat to this idea is described by the ultimate attribution error, which identifies four types of exceptions people make for individuals who don’t fit within the expectation of an out-group.⁸⁹ As a result of these exceptions, the positive characteristics of that out-group individual do not extend to the larger group. However, in order to counteract affective polarization, perhaps the point stands that we need to more directly appeal to emotion, and not just focus on cognition when generating strategies. The null results of the current study, which solely measured the effect of accountability mechanisms on cognitive processes, may give further support to this idea. Then perhaps accountability and other debiasing techniques should be used to pursue the generation of cross-party friendships.

Motivated Reasoning & Cognitive Biases

The present study does not search to demonstrate the existence of motivated reasoning, confirmation bias, or any other type of bias. The experiment design, independent variable, and dependent variables are not formatted to study these phenomena, but rather act upon the assumption that they already exist. As mentioned earlier, a large number of studies have delved into the influence of unconscious mental processes and motivation on human behavior and decision-making, whereas a relative paucity of research has focused on how to productively respond to the challenges often associated with them. Hence the current study has focused on the latter, while leaving the wealth of research on cognitive biases to speak for itself. One acknowledged limitation is that no explicit relationship between integrative complexity scores

⁸⁸ Haidt, 364.

⁸⁹ Pettigrew, “The Ultimate Attribution Error.”

and cognitive biases can presently be extrapolated upon. Regardless, there are some implications to discuss.

One such implication revolves around political knowledge. While it is measured, political knowledge is not part of the hypothesis, so it is important to be careful of fishing for effects. With this acknowledgement in mind, no inferences of causality will be made. However, the results related to political knowledge interestingly parallel research on political sophisticates being more prone to bias than other citizens.⁹⁰ Once again the current study does not explicitly measure bias, but Suedfeld, Tetlock, and Streufert may have found statistical correlations between integrative complexity and debiasing mechanisms.⁹¹ Thus, while only modest inferences can be comfortably made, the potential relationship between political sophisticates' degree of integrative complexity and motivated reasoning is worth discussion. One other caveat that should be acknowledged before delving into this discussion is that the measure of political knowledge, while closely related to sophistication, does not entirely measure the concept. A full measure of political sophistication also commonly includes elements like attention to and interest in politics, and, as the present research did not measure or control for those elements, any implications have limited scope.

That said, the results of the t-test by political knowledge indicate that those who are most politically knowledgeable (n=73) have on average significantly lower integrative complexity scores. Interestingly, when looking closely at the mean score of integration for those most

⁹⁰ Taber, Cann, and Kucsova, "The Motivated Processing of Political Arguments."

⁹¹ Lilienfeld, Ammirati, and Landfield, "Giving Debiasing Away."

politically knowledgeable, the actual mean is 0 (see table 6). As a reminder, integration refers to the creation of complex connections between differentiated dimensions and/or perspectives and is indicated by a score of 4 or higher. In essence, the mean value of zero indicates that none of the participants in the highest political knowledge category received the score of 4. Beyond political sophistication, these results may be reminiscent of the general finding that individuals who are more intelligent may be more prone to bias, as they are better able to brainstorm plausible or “reasonable” rationalizations and justifications.⁹² In other words, it would make sense that high political knowledge would correlate with low integrative complexity, particularly if low integrative complexity in turn is correlated with confirmation bias.

Another implication of the null result on motivated reasoning is related to what is known as “hot” cognition. Underpinning this concept is the idea that “all social processing is affectively charged and prone to biases.”⁹³ Lodge and Taber describe the act of information processing as a sequence that begins with a stimulus, moves through affective and then cognitive mediators, and ultimately can, but not necessarily will, lead to evaluations of political objects and conscious deliberation.⁹⁴ The word “hot” specifically refers to the affective charge that is initially attached to the information processing before it sequences through to the cognitive mediators. In turn, the main idea that derives from the hot cognition hypothesis is thus, “all political objects that have

⁹² West, Meserve, and Stanovich, “Cognitive Sophistication.”

⁹³ Redlawsk, “Hot Cognition or Cool Consideration.”

⁹⁴ Lodge and Taber, *The Rationalizing Voter*.

been thought about in the past are tagged to positive and/or negative feelings.”⁹⁵ The implications for the present study thus are that issues that are especially politically salient—like abortion—cannot bypass the impact of affect, or in more colloquial terms, the impact of how something subjectively feels. This obviously contrasts with the “cool” consideration endorsed by rationality, but more importantly implies that the biases associated with affect cannot be avoided without explicit acknowledgment of those biases in the attempt to correct for them.⁹⁶

Taken as a whole, it would appear several unconscious processes underlie the evaluation of political issues. This is further cemented by the following:

Because [...] biases favoring the retrieval of affectively congruent thoughts and feelings operate below awareness, the conscious, systematic construction of beliefs, attitudes, and intentions is necessarily dependent on those considerations and feelings that have been made available through unconscious processes. When called on to make an evaluation, state a preference, recount or justify an opinion, conscious introspection will not have access to the operative unconscious casual processes or many of the considerations that entered the decision stream unconsciously.⁹⁷

This indicates that any attempt to correct for biases in information processing and decision making, particularly those related to motivated reasoning and confirmation bias within political contexts, cannot ignore affect in order to be successful. As the current study did not control for

⁹⁵ Lodge and Taber, 60.

⁹⁶ Redlawsk, “Hot Cognition or Cool Consideration.”

⁹⁷ Lodge and Taber, *The Rationalizing Voter*, 24.

elements related to affect, the null hypothesis may provide support for the idea that motivated reasoning cannot be mitigated without a more holistic approach of the individual.

Theories of Democracy

An incongruence between ideals of human behavior and decision-making and the demonstrated lack of thought complexity is immediately apparent. This is particularly true for the ideals of behavior pertaining to American democracy, political science, and conflict resolution. The null results perhaps serve to temper any foregone conclusions. Even so, the various implications are necessary to reflect upon when considering the theories of deliberative and actualized democracy and their respective assumptions.

Returning to a discussion of actualized democracy, Moghaddam posits that in order to reify democratic actualization, individual-level processes must occur in which democratic citizens develop particular social skills. These were the statements outlined previously, including but not limited to “I could be wrong” and “I must seek to understand those who are different from me.”⁹⁸ Given the tenacity of preexisting beliefs and often blinding role of group membership, how can these skills be learned? The results of this study seem to corroborate the idea that teaching these skills is exceptionally difficult. Thankfully, Moghaddam does provide some insight to this issue. When discussing open-mindedness—a feature that is particularly fundamental to actualization—Moghaddam references an alternative interpretation that defines it as subject to motivation instead of a static personality trait. If thinking is goal-oriented, it follows that open-mindedness can vary across situations as goals themselves can be “turned on or off by

⁹⁸ Moghaddam, *The Psychology of Democracy*, 51.

situational and other factors.”⁹⁹ For better or for worse, open-mindedness can theoretically be encouraged—or discouraged—, which provides a potential entry point for teaching these skills. That said, null results of this study imply that open-mindedness is not a simple phenomenon to foster.

Regarding deliberative democracy, Fishkin may have had a point when contending that “we seem to face a forced choice between politically equal but relatively incompetent masses and politically unequal but relatively more competent elites.”¹⁰⁰ In other words, with the rise of mass political primaries, the process of deliberation seems to have weakened, but the equally unappealing alternative is to return to a process of candidate selection in which the average citizen has no sway. While Fishkin presents this dilemma as an introduction to the idea of a deliberative opinion poll, it also speaks to the greater concern of how to encourage deliberation among citizens and simultaneously maintain political equality. As Fishkin states later, “our subject is how to achieve deliberative democracy; how to include everyone under conditions where they are effectively motivated to really think about the issues.”¹⁰¹ Similar to the situation with actualized democracy, the null hypothesis of the current study indicates that achieving deliberative democracy is not a simple task. Furthermore, even if researchers are able to demonstrate an increase in the presence of considered opinions, it is difficult to confirm whether deliberation has been internalized or is merely a short-lived reaction to the research context.

⁹⁹ Moghaddam, 50.

¹⁰⁰ Fishkin, *Democracy and Deliberation*, 1–2.

¹⁰¹ Fishkin, *When the People Speak*, 1.

Thus, the promotion of considered opinions and, subsequently, deliberative democracy will require more effort than a one-off research study.

Limitations

While the present study has potentially noteworthy implications for the American political sphere and conflict resolution, there are several limitations that should be acknowledged. To begin, the study did not control for education, occupation, or ideology (such as the pro-choice/pro-life distinction). These variables were not explicitly related to the hypothesis and thus were left out of the experimental design, but nonetheless may have had an effect on the data that is retroactively impossible to measure. Additionally, since the study did not explicitly account for, nor measure, bias, no definite relationship between integrative complexity, motivated reasoning, and affective polarization be delineated.

Another limitation was related to the translation of the accountability method into an online context. In previous studies, the physical presence of study participants meant that it was feasible to facilitate discussions between them. In the present study, accountability was induced by falsely telling participants they would have to participate in online discussion. In order to avoid making the fact that this was a deception less salient, the AMT study description, initial informed consent, and survey script were all worded very carefully. Nonetheless, participants may not have been convinced, meaning there would not have been sufficient pressure to justify one's opinion, at least not in a way that would result in statistically significant differences in integrative complexity due to the intervention.

Other limitations are related to how the participants were sourced. Even though the AMT task was not exceptionally descriptive, the fact that it specifically mentioned abortion may have

resulted in a self-selection bias, wherein individuals who already had strong opinions were more likely to respond. There are likewise caveats due to self-reporting, as researchers need to rely on the presumption that participants are responding honestly. Of SurveyMonkey's 329 respondents, the average time spent on the survey was 4 minutes and 37 seconds, with a 72% completion rate. This short time frame throws doubt onto the amount of thought and concentration participants actually spent on their answers. For context, this statistic is an average that includes all respondents, even those who skipped the abortion paragraph prompt (and thus did not have their answers collected). For those who did finish the survey, it can reasonably be assumed that the unscorable, one-worded answers took much less time to complete than the paragraphs with multiple sentences, which may account for the four minute average time of completion. All in all, while more rigorous crowdsourcing platforms specifically geared toward research do exist, the current study was limited to Amazon Mechanical Turk and SurveyMonkey.

Recommendations

Based on these factors, future scientific studies should take a few items into account when further testing debiasing strategies in the online context. For integrative complexity specifically, some sort of mechanism external to the participant that provides more explicit pressure to perform adequately would serve well in generating more thought-out answers. Of course, there is a danger of exerting too much pressure and creating a contrived environment, so researchers should simultaneously be careful to not coerce or unduly stress participants. Regarding accountability, an experiment design that truly involves a group discussion portion may provide more legitimate pressure and expectations of justification requirements.

Another option is to repeat the study exactly as is to test for replicability, with the caveat that at least one additional coder is a mandatory revision in order to generate higher interrater reliability; after all, the more studies that report the same null finding, the better researchers can ascertain optimal conditions for successful debiasing. Alternatively, a third option is to repeat the study but with more rigor and dependent variables. Researchers could perform something similar to Colombo, who looked into the additional measure of argument strength.¹⁰² On the same vein, researchers could explicitly measure biases as well and look into whether low integrative complexity scores and biases are correlated.

An ideal experiment would address both the generalizability of debiasing interventions beyond specific domains as well as their ultimate longevity. To do so, participants would have to agree to return and participate in further tests months, even years, later. Another interesting dimension to consider may be the difference between children and adults, and whether children are more receptive to debiasing strategies. After all, debiasing will most effectively generate positive outcomes when its effects are manifested outside of the immediate laboratory and/or research context.

¹⁰² Colombo, "Hearing the Other Side."

CONCLUSION

In sum, these results do not explicitly speak to what works well in reducing cognitive biases observed within the American political context. It does, however, give us an idea of what does *not* work, and additionally helps confirm that the encouragement of considered opinions is complex and likely necessitates a holistic, multi-pronged approach. Based on the null results of the study, one suggested approach is to move beyond cognitive strategies alone and explicitly account for situational factors and affect.

APPENDIX: Survey, Informed Consent, and Debrief Scripts

SurveyMonkey Survey Script

[Title:] Abortion Survey

[Informed consent goes here]

*I have read the description of the study and I agree to participate.

- Yes
- No

[Note: If participants click no, they will be directed to separate page that says:

“You are seeing this page because you have chosen not to participate. Thank you for your time spent considering this survey. Please return to Amazon Mechanical Turk and enter "Do not consent" in the box asking for the code. Please note that this is *not* the code for finishing the survey, but instead indicates to the research team that you chose not to participate.”]

NOTE: If you clicked yes, the survey questions will begin after this page. You will be unable to go back to edit previous pages after you click "Next" at the bottom of each page. You may exit at any time (see the top right of the page), though note you will not receive a code if you do so before the end of the questionnaire.

[Note: Questions 1 – 9 will be randomized; another note, the survey is formatted to show one question per page, and there will be no question numbers on the actual survey; all questions are required (indicated with an asterisk) though participants have a “prefer not to say” option for the multiple choice and otherwise can write anything in response to the other questions, e.g. “I don’t want to answer”]

[1)] *Please indicate your race.

- Asian
- Black/African American
- Hispanic/Latinx
- Native American/American Indian
- Pacific Islander
- White/Caucasian
- Prefer not to say
- Other (Please specify)

[Note: answer order will be randomized, except last two options]

[2)] *Please indicate your age.

- Under 18
- 18-24
- 25-34
- 35-44
- 45-54

- 55-64
- 65 or older
- Prefer not to say

[Note: answer order will be flipped for every respondent, except last option]

[3)] *Please indicate your gender.

- Male
- Female
- Prefer not to say
- Other (fill in the blank)

[Note: answer order will be flipped for every respondent, except last two options]

[4)] *Please indicate your partisanship.

- Democrat
- Leaning Democrat
- Independent
- Leaning Republican
- Republican
- Prefer not to say
- Other (fill in the blank)

[Note: answer order will be flipped for every respondent, except last two options]

[5)] *Do you happen to know what job or political office is now held by Mike Pence?

[6)] *Whose responsibility is it to determine if a law is constitutional or not...is it the president, the Congress, or the Supreme Court?

[7)]* How much of a majority is required for the *U.S.* Senate and House to override a presidential veto?

[8)]* Do you happen to know which party had the most members in the House of Representatives in Washington *before* the last election?

[9)]* Would you say that one of the parties is more conservative than the other at the national level? Which party is more conservative?

[Treatment condition:]

The abortion debate is the ongoing controversy surrounding the moral, legal, and religious status of induced abortion, a medical or surgical procedure that deliberately ends a pregnancy before an embryo or fetus is born. The sides involved in the debate are the self-described "pro-choice" and "pro-life" movements. "Pro-choice" emphasizes the right of women to decide whether to terminate a pregnancy and argues that access to safe, legal abortions is a human right. "Pro-life"

typically objects to the practice for religious or ethical reasons and emphasizes the right of the embryo or fetus to gestate to term and be born.

[10)]* We are investigating how people think about controversial social issues. In a paragraph of 4-5 sentences, please share your thoughts, feelings, and/or opinions on abortion. At the end of this questionnaire, you will be provided a link to an online forum where you will explain and justify your position to another study participant.

[Control condition:]

The abortion debate is the ongoing controversy surrounding the moral, legal, and religious status of induced abortion, a medical or surgical procedure that deliberately ends a pregnancy before an embryo or fetus is born. The sides involved in the debate are the self-described "pro-choice" and "pro-life" movements. "Pro-choice" emphasizes the right of women to decide whether to terminate a pregnancy and argues that access to safe, legal abortions is a human right. "Pro-life" typically objects to the practice for religious or ethical reasons and emphasizes the right of the embryo or fetus to gestate to term and be born.

[10)]* We are investigating how people think about controversial social issues. In a paragraph of 4-5 sentences, please share your thoughts, feelings, and/or opinions on abortion.

NOTE: This is the last survey question. Once you move forward you will be unable to return to this page.

[Debrief]

*I have been debriefed about the purpose of the study and I still agree to participate.

- Yes
- No

NOTE: This is the end of the survey. Please go to the next page to receive a code. If you clicked no, your responses will be removed from the study, though you will still receive a code for answering the questions.

Thank you for your participation! Here is the code for finishing the survey:

[Code -see 20 options below; will be randomly provided to participant]

Please enter this code into Amazon Mechanical Turk to receive credit.

[Randomly generated codes:

Drv5RZFHx6, DqH9NSpytI, fn2kKQOB1I, A9HyYHWTIB, nFX2PjDGw2, HV8BWNNKeW, euPW88qXny, AQ5lgu2IUD, YAQn1hXmlQ, Xa8IJnMFAJ, DIyWWKHxK6, F9FfWevDBY, ScOkAE4qFa, kxDccBLMeg, ECltbALKvA, iWJ2MGCg9X, BsaLbuTrJb, xTijXh1UMy, gS7C8Svyi4, qJqXvK7AKZ]

Coding Key

Please indicate your race.

1. Asian
2. Black/African American
3. Hispanic/Latinx
4. Native American/American Indian
5. Pacific Islander
6. White/Caucasian
7. Prefer not to say
8. Other (Please specify)

Please indicate your age.

1. 18-24
2. 25-34
3. 35-44
4. 45-54
5. 55-64
6. 65 or older
7. Prefer not to say

Please indicate your gender.

1. Male
2. Female
3. Prefer not to say
4. Other (fill in the blank)

Please indicate your partisanship.

1. Democrat
2. Leaning Democrat
3. Independent
4. Leaning Republican
5. Republican
6. Prefer not to say
7. Other (fill in the blank)

Political knowledge questions: 1 for correct, 0 otherwise

Do you happen to know what job or political office is now held by Mike Pence?
Vice President

Whose responsibility is it to determine if a law is constitutional or not...is it the president, the Congress, or the Supreme Court?
Supreme Court

How much of a majority is required for the *U.S.* Senate and House to override a presidential veto?

2/3

Do you happen to know which party had the most members in the House of Representatives in Washington *before* the last election?

Republican

Would you say that one of the parties is more conservative than the other at the national level?
Which party is more conservative?

Republican

Amazon Mechanical Turk Survey Script

Title: Answer Questions About Abortion

Description: We are testing survey questions about abortion. In order to see if they work, please answer honestly.

Keywords: survey, questionnaire, demographics, short answer, abortion

Reward per response: \$0.50

Number of respondents: 250

Time allotted per Worker: 30 minutes

Survey expires in: 60 days

Auto-approve and pay Workers in: 3 days

Select the link below to complete the task. When prompted by SurveyMonkey, enter the following password to access the task:

8909185067

At the end, you will receive a different code to paste into the box below to receive credit. More details regarding informed consent will be available after following the link, prior to beginning the task.

Make sure to leave this window open as you complete the task. When you are finished, you will return to this page to paste the code into the box.

Survey link <https://www.surveymonkey.com/r/D78XCMB>

Provide the survey code here:

Informed Consent Script

Permission to Take Part in a Human Research Study ~ Georgetown University

Location: Online

Key Information: The following is a short summary of this study to help you decide whether or not to be a part of this study. More detailed information is listed later on in this form.

Why am I being invited to take part in a research study?

We invite you to take part in a research study because you are an adult in the United States of America.

What should I know about a research study?

- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.

Why is this research being done?

This research is being performed in order to understand more about individuals' opinions on controversial social issues. Previous studies show that Americans are becoming increasingly divided along political party lines through a sort of "us versus them" way of thinking. This research has the potential to benefit society by helping us better understand how to best respond to this increasing division.

How long will the research last and what will I need to do?

We expect that you will be in this research study for approximately 10 minutes, though you will have up to 30 minutes to finish. You will be asked to answer some basic demographic questions, some politically-natured questions, and share your opinions regarding abortion.

More detailed information about the study procedures can be found under "What happens if I say yes, I want to be in this research?"

Is there any way being in this study could be bad for me?

As abortion is often a sensitive topic, expressing your opinions could cause emotional distress.

More detailed information about the risks of this study can be found under "Is there any way being in this study could be bad for me? (Detailed Risks)"

Will being in this study help me in any way?

There are no benefits to you from your taking part in this research. We cannot promise any benefits to others from your taking part in this research.

What happens if I do not want to be in this research?

Participation in research is completely voluntary. You can decide to participate or not to participate. Your alternative to participating in this research study is to not participate.

Detailed Information: The following is more detailed information about this study in addition to the information listed above.

Who can I talk to?

If you have questions, concerns, or complaints, or think the research has hurt you, talk to the research team at rb1623@georgetown.edu.

This research has been reviewed and approved by an Institutional Review Board ("IRB"). You may talk to them at (202) 687-1506 or irboard@georgetown.edu if:

- Your questions, concerns, or complaints are not being answered by the research team.

- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research subject.
- You want to get information or provide input about this research.

How many people will be studied?

We expect about 250 people will be in this research study total.

What happens if I say yes, I want to be in this research?

You will be asked to complete a questionnaire that asks about your race, gender, age, and partisanship. You will also be asked to answer five questions about political information. You will then be prompted to write a paragraph about your thoughts, feelings, and/or opinions on abortion. This survey will take approximately 10 minutes. You will only have to complete the survey once. You will not be contacted in the future.

What happens if I say yes, but I change my mind later?

You can leave the research at any time and it will not be held against you. If you do decide to leave, any data collected will be immediately deleted. You will not be contacted any time the future.

Is there any way being in this study could be bad for me? (Detailed Risks)

The risks to this study are minor. However, you may experience psychological discomfort such as stress due to the sensitive nature of abortion. While this study has the potential to be a distressing experience, the likelihood of this is minimal.

What happens to the information collected for the research?

No personal/identifying information will be collected or associated with your answers. Efforts will be made to protect your personal information (that is, your answers to the questions) to the extent allowed by law. However, we cannot guarantee absolute confidentiality. Records of research study participants' responses are stored and kept in a secure, online system hosted by Georgetown University. At the end of the study, this information will be kept in the secure, online system mentioned above. The data will only be accessed by the research team. However, it may be retained indefinitely for use in future studies. You will not be identified in any reports or publications resulting from this study. Please note that Amazon Mechanical Turk personnel involved in processing your payment for participation may be aware of your identity.

Can I be removed from the research without my OK?

The person in charge of the research study can remove you from the research study without your approval. Possible reasons for removal include blatantly disregarding the prompt in your answers, purposefully not answering a substantial number of the questions, or not being eligible for the study (that is, you must be an adult in the United States to be eligible). Please note that the reward cannot not be guaranteed for participants who are removed.

What else do I need to know?

Though the researchers would like to know the answers to all the questions, you are not required to answer any question if it makes you uncomfortable. If you agree to take part in this research study, we will pay you \$0.50 for your time and effort. However, please note again that the reward cannot be guaranteed if a substantial number of questions are left unanswered.

Debrief Script

This study was in truth performed to measure the impact of “accountability” on the complexity of thinking. “Accountability” is an intervention technique intended to encourage complex thinking by informing individuals that they will need to justify their opinions to others.

You were randomly placed into one of two conditions. In the control condition, you were given a brief description of the abortion debate and instructed to write 4 to 5 sentences on your opinion.

In the treatment condition, you were given all the same information and instructions as the control, but additionally told that you were going to be participating in a discussion on an online forum immediately after finishing the questionnaire. This was intended to induce “accountability”. This discussion is fictitious and will not take place.

For all study subjects, your responses will remain confidential and will only be viewed by the research team. There are no negative consequences resulting from the content of your opinions. The researchers are interested in how you explain yourself, not in the specific content of what you say.

After this debrief you will be given the chance to indicate whether you are willing to have your information collected and participate in this study. Should you choose to withdraw your information, there is no monetary penalty.

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