

Are neoliberals more susceptible to bullshit?

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Abstract

We conducted additional analyses of Pennycook et al.'s (2015, Study 2) data to investigate the possibility that there would be ideological differences in “bullshit receptivity” that would be explained by individual differences in cognitive style and ability. As hypothesized, we observed that endorsement of neoliberal, free market ideology was significantly but modestly associated with bullshit receptivity. In addition, we observed a quadratic association, which indicated that ideological moderates were more susceptible to bullshit than ideological extremists. These relationships were explained, in part, by heuristic processing tendencies, faith in intuition, and lower verbal ability. Results are inconsistent with approaches suggesting that (a) there are no meaningful ideological differences in cognitive style or reasoning ability, (b) simplistic, certainty-oriented cognitive styles are generally associated with leftist (vs. rightist) economic preferences, or (c) simplistic, certainty-oriented cognitive styles are generally associated with extremist (vs. moderate) preferences. Theoretical and practical implications are briefly addressed.

Keywords: political ideology, neoliberalism, cognitive style, cognitive ability, bullshit receptivity

1 Introduction

The words used by neoliberalism¹ often conceal more than they elucidate. “The market” sounds like a natural system that might bear upon us equally, like gravity or atmospheric pressure. But it is fraught with power relations. What “the market wants” tends to mean what corporations and their bosses want. (Monbiot, 2016.)

The philosopher Harry Frankfurt (2005) has bestowed upon us a pointed conceptual analysis of “bullshit” — a concept that should be regarded as distinct from related concepts such as lying. “Bullshitting,” on Frankfurt’s view, is an insidious way of speaking that is entirely “unconnected with the truth,” that is, “not germane to the enterprise of describing reality” (p. 30). When someone tells a lie, he or she knows what the truth is and attempts to conceal it. When someone engages in bullshit, by contrast, Frankfurt suggests that “the truth-values of his statements are of no central interest to him” (p. 55). The connection to advertising and

politics is a natural one: “The realms of advertising and of public relations, and the nowadays closely related realm of politics, are replete with instances of bullshit so unmitigated that they can serve among the most indisputable and classic paradigms of the concept” (Frankfurt, 2005, p. 22).

In a series of studies, Pennycook, Cheyne, Barr, Koehler and Fugelsang (2015) developed an instrument for measuring receptivity to bullshit and explored individual differences in such receptivity. Following Frankfurt’s (2005) definition of bullshit as reflecting a lack of concern for the truth, the researchers presented participants with randomly generated statements that were extremely vague or meaningless and yet seemingly profound (as well as tweets sent by Deepak Chopra) and asked them to judge the profundity of each statement.² The researchers identified a number of psychological characteristics that predicted acceptance of the pseudo-profound statements (i.e., bullshit receptivity). These characteristics included intuitive (vs. analytic) thinking styles, faith in intuition, low need for cognition, and low cognitive ability. In describing one of the studies, Pennycook and colleagues mentioned that: “Participants also completed . . . political ideology measures . . . [that] were included as part of separate investigations and will not be analyzed or discussed further” (p. 554). Because of an ongoing interest in left-right (or liberal-conservative) ideological differences in cognitive and motivational styles (e.g., Jost,

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¹Neoliberal ideology is characterized by a “belief in sustained economic growth as the means to achieve human progress, its confidence in free markets as the most-efficient allocation of resources, its emphasis on minimal state intervention in economic and social affairs, and its commitment to the freedom of trade and capital” (Smith, 2016).

²Although statements of pseudo-profound bullshit may leave open the possibility that some sort of meaning can be constructed (Dalton, 2016), the fact that many of the statements were randomly generated (i.e., derived without any concern for the truth) means that they are, according to Frankfurt’s definition, “bullshit” (see Pennycook, Cheyne, Barr, Koehler & Fugelsang, 2016). Indeed, the very purpose of pseudo-profound bullshit is to elicit a sense of meaning by expressing a statement that is essentially meaningless. This is typically accomplished by using language that is vague and abstract.

Blount, Pfeffer & Hunyady, 2003a; Jost, Glaser, Kruglanski & Sulloway, 2003b; Jost & Krochik, 2014), we requested the complete data set to examine, in collaboration with the lead author of the original publication, the question of whether there are or are not ideological differences in bullshit receptivity.

There are several reasons why ideological differences in receptivity to bullshit would exist — and a few reasons why they might not. For one thing, research in political psychology demonstrates that the thinking styles of conservatives, in comparison with liberals, may be characterized as intuitive rather than analytic (Deppe et al., 2015; Jost & Krochik, 2014; Kimmelmeier, 2010; Talhelm et al., 2015); heuristic rather than systematic (Jost & Krochik, 2014; Stern, West, Jost & Rule, 2013); simple rather than complex (Jost et al., 2003a, 2003b; Tetlock, 2007); and low rather than high in “need for cognition” or “enjoyment of thinking” (Carraro, Castelli & Macchiella, 2011; Hennes, Nam, Stern & Jost, 2012; Sargent, 2004; Stern et al., 2013). These and many other ideological asymmetries in epistemic motivation have been reviewed recently by Jost, Sterling, and Stern (2016). Studies also suggest that conservatives are, on average, lower in general cognitive abilities than liberals (e.g., Deary, Batty & Gale, 2008; Heaven, Ciarrochi & Leeson, 2011; Hodson & Busseri, 2012). At the same time, some cultural observers may suspect that liberals would be more open than conservatives to “new age” ways of thinking, including the ideas of Deepak Chopra, who is a regular contributor to the liberal blog “Huffington Post”. It is also conceivable that liberals’ greater “open-mindedness” would render them especially susceptible to the type of pseudo-profound bullshit studied by Pennycook et al. (2015).

Still other scholars have taken the position that there are no meaningful, domain-general differences in reasoning abilities and that liberals and conservatives should be equally prone to simplistic, flawed, and distorted ways of thinking (e.g., Conway et al., 2016; Crawford, 2012; Haidt, 2012; Kahan, 2012; Shermer, 2011). These approaches would anticipate ideological symmetries rather than asymmetries when it comes to both strengths and weaknesses in judgment and reasoning. They would favor the null hypothesis when it comes to the association between liberalism-conservatism and receptivity to bullshit in general (as opposed to liberal vs. conservative bullshit in particular).

A number of researchers also distinguish sharply — perhaps too sharply, given how many political issues seem to blend both types of concerns — between social and economic dimensions of ideology (e.g., Feldman & Johnston, 2014). Malka and Soto (2015) have taken an especially strong position in arguing that needs for certainty (and therefore simplicity) should be associated with rightist views in social domains but *leftist* views in economic domains, including support for “strong redistributive and regulatory economic intervention” (p. 137). The idea here is that

“many left-wing economic policies aim to provide people with economic stability and security, and this might be naturally need satisfying” for those who are high in needs for certainty and security (p. 138).

Jost et al. (2003a) observed a tendency for some, especially political conservatives, to embrace “fair market ideology” and to assume — in the absence of evidence — that capitalist (i.e., market-based) procedures and outcomes are not only efficient but inherently fair and just. Endorsement of fair market ideology was also associated with self-deception and economic system justification, which is negatively correlated with personal need for cognition (Hennes et al., 2012). A system justification perspective may be useful for understanding why economic conservatives might process information superficially rather than deeply and how this might make them susceptible to certain false, system-serving beliefs about such topics as the degree of income inequality in society (Bartels, 2008) and the actual causes of the economic recession that began in 2007 (Kessler, 2010). It is also possible that the simplicity of neoliberal ideology, which tends to ignore or downplay social-structural factors that might constrain an individual’s abilities and economic opportunities, contributes to its status as a kind of cognitive default.

In this brief article, we summarize the results of additional analyses carried out on data from Pennycook et al.’s (2015) article. Specifically, we investigated the hypothesis that stronger endorsement of neoliberal, free market ideology would predict greater receptivity to bullshit and that the relationship between neoliberalism and bullshit receptivity would be partially explained by individual differences in cognitive style, such as heuristic processing tendencies, and cognitive ability. We also explored whether the hypothesized relationship would hold for two more general measures of ideological self-placement (i.e., fiscal and social conservatism), with the prediction that political conservatism (vs. liberalism) would be associated with greater bullshit receptivity, and whether there would be nonlinear, quadratic effects of ideological extremity on bullshit receptivity (see Jost, Napier, Thorisdottir, Gosling, Palfai & Ostafin, 2007).

2 Methods

Pennycook, Cheyne, Barr, Koehler, and Fugelsang (2015) shared with us their full data set from Study 2, which examined individual differences in receptivity to “pseudo-profound bullshit” and included three measures of ideology (i.e., support for free market ideology, social liberalism-conservatism, and fiscal liberalism-conservatism). We conducted a series of correlational and regression analyses to investigate the nature of the relationship, if any, between free market ideology and bullshit receptivity.

2.1 Sample and procedure

As noted in the original article, 198 U.S. residents (98 male, 100 female, $M_{\text{age}} = 36$, $SD_{\text{age}} = 11.4$) participated in the experiment through Amazon's Mechanical Turk. Previous research indicates that this platform is a surprisingly good one for estimating ideological differences in psychological characteristics (Clifford, Jewell & Waggoner, 2015). Following Pennycook et al. (2015), we omitted data from 11 participants because they answered affirmatively when asked whether they responded randomly during the study. An additional 24 participants failed to complete the political ideology measures and were therefore excluded from analysis.

In this study participants were presented with 30 seemingly profound statements curated by Pennycook and colleagues (e.g., "We are in the midst of a self-aware blossoming of being that will align us with the nexus itself," "Your movement transforms universal observations," and "Consciousness is the growth of coherence, and of us") and rated each statement on a 5-point scale, ranging from 1 (*Not at all profound*) to 5 (*Very profound*). As described by Pennycook et al., 20 of these items were derived from two websites (<http://sebpearce.com/bullshit/> and <http://wisdomofchopra.com>) that used a random generator to select buzzwords and create sentences with syntactic structure. An additional 10 items were taken from Deepak Chopra's Twitter feed. Because profundity ratings of Chopra's tweets were very highly correlated with ratings of randomly generated items ($r = .88$), Pennycook et al. combined all 30 items into a single bullshit receptivity scale. Thus, average bullshit receptivity scores were calculated by taking the mean profundity rating for the 30 statements (see supplemental materials of the original article for the full list of items: <http://journal.sjdm.org/15/15923a/supp.pdf>).

Participants next completed several tasks and measures that have been designed to assess individual differences in cognitive style and cognitive ability. Three measures of cognitive style were administered: (1) a 20-item "need for cognition" scale ($\alpha = .93$), which measures enjoyment of effortful thinking (Cacioppo & Petty, 1982), (2) a 20-item "faith in intuition" scale ($\alpha = .94$), which is a self-report measure of confidence and engagement in one's intuitive abilities (Epstein, Pacini, Denes-Raj & Heier, 1996); and (3) a "heuristics and biases" battery that is similar to the "cognitive reflection test" in that it poses a number of decision-making problems for which intuitive reasoning tends to produce erroneous outcomes (Toplak, West & Stanovich, 2011). A higher score on the "heuristics and biases" battery indicates that the respondent was successful in overcoming intuitive (incorrect) responses and providing correct answers to the questions ($\alpha = .75$). Participants also completed three cognitive ability measures: (1) a 12-item measure of verbal intelligence ($\alpha = .60$) known as the "Wordsum" (Malhotra,

Krosnick & Haertel, 2007), (2) a 9-item measure of numeracy ($\alpha = .57$; Lipkus et al., 2001), and (3) a 12-item version of Raven's Advanced Progressive Matrices, which was designed to test abstract reasoning ($\alpha = .69$; Chiesi et al., 2012).

As part of another study that was completed at the same time (see <http://www.sjdm.org/presentations/2015-Poster-Pennycook-Gordon-Wealth-distribution-USA.pdf>), participants completed three measures of political ideology: (1) a single ideological self-placement item with respect to the social dimension of ideology (i.e., "On social issues I am..."), with response options ranging from 1 [*strongly liberal*] to 5 [*strongly conservative*]; (2) a single ideological self-placement item with respect to the economic dimension of ideology ("On fiscal [economic] issues I am..."), with response options ranging from 1 [*strongly liberal*] to 5 [*strongly conservative*]; and (3) a five-item scale designed to measure endorsement of free market ideology (Heath & Gifford, 2006; $\alpha = .81$). The five items were: "An economic system based on free markets unrestrained by government interference automatically works best to meet human needs", "The preservation of the free market system is more important than localized environmental concerns", "The free market system may be efficient for resource allocation but it is limited in its capacity to promote social justice" [reverse-coded], "Free and unregulated markets pose important threats to sustainable development" [reverse-coded], "The free market system is likely to promote unsustainable consumption" [reverse-coded]. Responses were provided on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Finally, participants indicated their levels of trust in the government, a Republican-led government, and a Democratic-led government on a five-point scale.

The following is an ordered list of the tasks that participants completed in this study: Wealth distribution task,³ bullshit receptivity, heuristics and biases, verbal intelligence, numerical intelligence, Raven's Advanced Progressive Matrices, ontological confusions,⁴ religious belief,² paranormal belief,² free market ideology, trust in government, political ideology, need for cognition, and faith in intuition. (All study materials can be found at <https://osf.io/kn2wm/>.)

3 Results

Correlations among variables are listed in Table 1. Consistent with theoretical expectations, individuals who endorsed neoliberal, free market ideology performed worse on the "heuristics and biases" task, thereby demonstrating

³Not considered here, see <http://www.sjdm.org/presentations/2015-Poster-Pennycook-Gordon-Wealth-distribution-USA.pdf>, Experiment 1.

⁴Not considered here, see Pennycook et al. (2015).

Table 1: Correlations among Bullshit Receptivity, cognitive style variables, and Political Ideology.

	1	2	3	4	5	6	7	8	9	10	11	12
1. Free Market Ideology	.											
2. Fiscal Conservatism	.47**	.										
3. Social Conservatism	.34**	.67**	.									
4. Heuristics and Biases	-.26**	-.11	-.18*	.								
5. Need for Cognition	-.23**	-.19*	-.15	.21**	.							
6. Faith in intuition	.20*	.11	.17*	-.35**	-.30**	.						
7. Verbal Intelligence	-.32**	-.14	-.19*	.41**	.26**	-.34**	.					
8. Numeracy	-.11	-.04	-.11	.47**	.20**	-.28**	.29**	.				
9. Abstract Reasoning	-.16*	-.02	-.03	.47**	.21**	-.14	.36**	.46**	.			
10. Bullshit Receptivity	.16**	.13	.11	-.34**	-.12	.33**	-.28**	-.25**	-.25**	.		
11. Trust in government	-.24**	-.21**	-.08	-.11	.09	-.04	-.01	-.07	-.09	.07	.	
12. Trust in Democrats	-.20**	-.39**	-.29**	-.10	.07	-.02	.05	-.05	-.13	.10	.72**	.
13. Trust in Republicans	.25**	.43**	.47**	-.17*	-.23**	.10	-.11	.01	-.04	.17*	.31**	.07

Note: We calculated bullshit receptivity as the average profundity rating of 30 statements that were rated on a scale from 1 (*Not at all profound*) to 5 (*Very profound*). “Heuristics and biases” was measured with the use of a battery of decision-making problems; higher scores indicate *less* reliance on heuristics, biases, and incorrect intuitions (Toplak et al., 2011). Need for cognition and faith in intuition were both measured in terms of self-report scales; higher scores indicate greater need for cognition and faith in intuition, respectively. Free market ideology was measured with the use of a five-item scale; higher numbers indicate stronger endorsement of free market ideology. Fiscal and social conservatism were single-item measures of ideological self-placement on scales ranging from 1 (*Strongly liberal*) to 5 (*Strongly conservative*). Trust items were measured with single items; higher scores indicate greater trust in the government (in general), greater trust in Democratic governance, and greater trust in Republican governance. *N*’s ranged from 159 to 163.

* $p < .05$, ** $p < .01$.

a stronger reliance on intuitive or heuristic-based cognitive processing ($r = -.26, p = .001$). They also scored lower on need for cognition ($r = -.23, p = .003$), expressed more faith in intuition ($r = .20, p = .011$), and performed worse on two of three tests of cognitive ability, namely verbal intelligence ($r = -.32, p < .001$) and abstract reasoning ($r = -.16, p = .04$), assessed with the “Wordsum” task and Raven’s Advanced Progressive Matrices, respectively. Finally, the endorsement of neoliberal, free market ideology was significantly associated with receptivity to bullshit ($r = .16, p = .046$).

Correlations involving single-item measures of social and fiscal conservatism — which were themselves highly inter-correlated ($r = .67, p < .001$) — were in all cases in the same direction but generally weaker than those involving free market ideology. Interestingly, bullshit receptivity was positively associated with trust in government, but the correlation attained conventional levels of statistical significance only with respect to trust in Republican governance ($r = .17, p = .032$).

3.1 Primary analyses

To investigate the hypothesis that cognitive style and ability would partially explain the relationship between free market ideology and bullshit receptivity, we conducted three linear regression models (see Table 2). In the first model, we confirmed that there was a significant positive relationship between the endorsement of free market ideology and bullshit receptivity, $b = .006, SE = .003, t(161) = 2.01, p = .046$. In the second and third models, we explored whether the relationship between the endorsement of free market ideology and bullshit receptivity was partially explained by differences in cognitive style and ability, respectively.

In the second model, we adjusted for the three cognitive style variables: heuristic processing, faith in intuition, and need for cognition. We observed that individuals who engaged in heuristic processing were more receptive to bullshit, $b = -.895, SE = .289, t(158) = -3.095, p = .002$, and so were those who expressed more faith in intuition, $b = .009, SE = .003, t(158) = 2.940, p = .004$. However, there was no association between need for cognition and bullshit recep-

Table 2: Linear models predicting bullshit receptivity.

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
Free Market Ideology	.006 (.003)*	.002 (.003)	.002 (.003)
Need for Cognition		.001 (.003)	
Heuristics and Biases		-.895 (.289)**	
Faith in Intuition		.009 (.003)**	
Numeracy			-.345 (.211)
Verbal Intelligence			-.837 (.389)*
Abstract Reasoning			-.418 (.326)

Note. We calculated bullshit receptivity as the average profundity rating of 30 statements that were rated on a scale from 1 (*Not at all profound*) to 5 (*Very profound*). “Heuristics and biases” was measured with the use of a battery of decision-making problems; higher scores indicate *less* reliance on heuristics, biases, and incorrect intuitions (Toplak et al., 2011). Need for cognition and faith in intuition were both measured in terms of self-report scales; higher scores indicate greater need for cognition and faith in intuition, respectively. Free market ideology was measured with the use of a five-item scale; higher numbers indicate stronger endorsement of free market ideology.

† $p < .06$, * $p < .05$, ** $p < .01$.

tivity, $p = .86$. After adjusting for the three cognitive style variables, the relationship between endorsement of free market ideology and bullshit receptivity became nonsignificant, $p = .53$.

In the third model, we investigated whether the relationship between free market ideology and bullshit receptivity would be partially explained by differences in cognitive ability. Individuals who scored higher on verbal intelligence (Wordsum) were less receptive to bullshit, $b = -.837$, $SE = .389$, $t(158) = -2.154$, $p = .033$, but there were no significant associations between scores on numeracy ($p = .10$) or Raven’s measure of abstract reasoning ($p = .20$) and bullshit receptivity. After adjusting for the three cognitive ability variables, the relationship between neoliberalism and bullshit receptivity became nonsignificant, $p = .40$.

3.2 Secondary analyses

To further explore the nature of the relationship between ideology and bullshit receptivity, we conducted two additional sets of analyses. First, we probed whether the relationship between neoliberalism and bullshit receptivity could also be represented with a quadratic function. Second, we investigated linear and quadratic effects of the two ideological self-placement items (i.e., fiscal and social liberalism-conservatism) on bullshit receptivity.

3.2.1 Quadratic effects of ideological extremity

To explore the possibility that ideological extremists would be more susceptible to bullshit than moderates, we centered free market ideology scores at the mean and computed a quadratic term. In an initial model, we observed a significant quadratic relationship such that those who were moderate in terms of their support for the free market appeared to be more susceptible to bullshit than extremists in either direction, $b = -.00027$, $SE = .00012$, $t(160) = -2.25$, $p = .026$ (see Figure 1 and Table 3).

Following the same analysis procedure for the linear models, we then examined whether the quadratic relationship would be partially explained by cognitive style and ability. The main effects of cognitive style and cognitive ability in the quadratic models were nearly identical to those observed in the linear models, so we will focus our discussion on changes in quadratic coefficients. In the second model, adjusting for the three cognitive style variables reduced the quadratic relationship between neoliberalism and bullshit receptivity to non-significance, $p = .17$. The same pattern was observed with respect to cognitive ability measures in Model 3; adjusting for these also reduced the quadratic relationship between neoliberalism and bullshit receptivity to non-significance, $p = .35$.

Table 3: Quadratic models predicting bullshit receptivity.

	<i>Model 1</i>		<i>Model 2</i>		<i>Model 3</i>	
Free Market Ideology						
Linear effect	.005	(.003) [†]	.002	(.003)	.003	(.003)
Quadratic effect	-.00027	(.00012)*	-.00016	(.00011)	-.00012	(.00012)
Need for Cognition			.001	(.003)		
Heuristics and Biases			-.807	(.295)**		
Faith in Intuition			.009	(.003)**		
Numeracy					-.305	(.215)
Verbal Intelligence					-.775	(.394)*
Abstract Reasoning					-.398	(.327)

Note. We calculated bullshit receptivity as the average profundity rating of 30 statements that were rated on a scale from 1 (*Not at all profound*) to 5 (*Very profound*). “Heuristics and biases” was measured with the use of a battery of decision-making problems; higher scores indicate *less* reliance on heuristics, biases, and incorrect intuitions (Toplak et al., 2011). Need for cognition and faith in intuition were both measured in terms of self-report scales; higher scores indicate greater need for cognition and faith in intuition, respectively. Free market ideology was measured with the use of a five-item scale; higher numbers indicate stronger endorsement of free market ideology.

[†] $p < .06$, * $p < .05$, ** $p < .01$.

3.2.2 Linear and quadratic effects of ideological self-placement

We also explored whether the two ideological self-placement items would be associated with bullshit receptivity. As noted above, self-reported fiscal and social conservatism were strongly correlated ($r = .67, p < .001$), so we averaged them into a single measure. While the coefficients were in the same directions described above, the linear and quadratic effects of ideological self-placement on bullshit receptivity both failed to approach significance, $p = .13$ and $p = .41$, respectively. To discover whether the lack of a relationship was attributable to issues of poor reliability with respect to the composite measure, we computed additional models that treated each ideological self-placement item as an independent predictor of bullshit receptivity, but we observed no significant relationships, $ps \geq .10$.

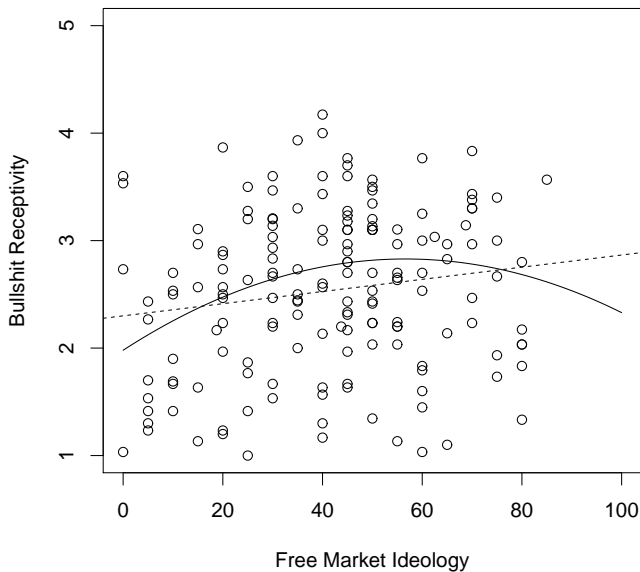
4 General discussion

In an analysis of previously unpublished data collected by Pennycook et al. (2015) we investigated the possibility that there would be ideological differences in bullshit receptivity and that such differences would be partially explained by cognitive style and ability variables (e.g., Jost et al., 2003a, 2003b; Jost & Krochik, 2014; Jost et al., 2016). We

discovered that the endorsement of neoliberal, free market ideology was significantly, albeit modestly, associated with greater bullshit receptivity. In addition to a direct association, our analyses revealed a quadratic relationship, such that moderate supporters of free market ideology appeared to be more susceptible to bullshit than ideological extremists in either direction. Both relationships were explained in part by reliance on heuristic forms of information processing, having faith in one’s intuition, and low verbal intelligence. No significant association was observed between two ideological self-placement items and bullshit receptivity.

Because Pennycook et al. (2015) administered ideological measures to only one of their four samples, our conclusions are based on a single study. However, it is important to point out that another team of researchers has reported findings that are strikingly similar to ours. Pfattheicher and Schindler (2016) administered the same measure of bullshit receptivity that we used and observed that self-identified conservatism and the holding of favorable views toward the three most competitive Republican candidates in the U.S. presidential primaries in 2016 (Donald Trump, Ted Cruz, and Marco Rubio) were positively associated with the acceptance of pseudo-profound bullshit. There was no relationship between ratings of the three most competitive Democratic candidates (Hillary Clinton, Bernie Sanders,

Figure 1: Linear and quadratic effects of Free Market Ideology predicting Bullshit Receptivity.



and Martin O'Malley) and bullshit receptivity.

Our study and that of Pfattheicher and Schindler (2016) are limited by the fact that only one type of bullshit, namely pseudo-profound bullshit, has been considered. As noted by Pennycook et al. (2015), there are many different forms of bullshit. Bullshit in politics, for example, does not necessarily rely on abstract buzzwords. Indeed, a politician might deliberately simplify language to broaden his or her appeal, stating something that is vague and platitudinous, like “I believe in America!” Presumably, this is because politicians are typically more concerned with getting elected than they are with expressing what they actually believe to be true (Frankfurt, 2005). In any case, pseudo-profound bullshit may be distinguishable from political bullshit, and it is possible to be receptive to one type but not the other. This is an area for future research.

Taken in conjunction, the current findings and those of Pfattheicher and Schindler (2016) are inconsistent with theoretical approaches suggesting that (a) there are no meaningful, domain-general differences between liberals and conservatives when it comes to cognitive style and reasoning ability (Conway et al., 2016; Crawford, 2012; Kahan, 2012, 2013), (b) individuals who exhibit thinking styles that are simplistic and certainty-oriented are generally drawn to leftist (vs. rightist) economic views (Feldman & Johnston, 2014; Malka & Soto, 2015), or (c) simplistic, certainty-oriented cognitive styles would be associated with ideologically extreme (as opposed to moderate) preferences (Greenberg & Jonas, 2003). On the contrary, we observed both linear and quadratic effects that are consistent with the theory of political ideology as motivated social cognition (Jost et al., 2003). Such effects may turn out to be consequential

for judgment and reasoning in the political sphere, but this remains to be shown.

The results of our analyses — and those of Pfattheicher and Schindler (2016) — reinforce and extend the conclusions of prior work indicating that the endorsement of conservative ideology, including economic conservatism, is associated with intuitive, heuristic, and “gut-level” forms of reasoning — as opposed to more deliberative, systematic, or logical forms of reasoning (Jost & Krochik, 2014). They are also broadly consistent with previous evidence suggesting that ideological centrists (or moderates) are more certainty-oriented than ideological extremists of the left or right (Jost et al., 2007).

Does this mean that neoliberals are more susceptible to bullshit than those who support some form of governmental regulation of the economy? Does it mean that people with centrist views about the economy are more susceptible to bullshit than economic leftists or rightists? We certainly would not draw any strong conclusions on the basis of two studies involving fairly small online convenience samples and a fairly new measure of bullshit receptivity. It seems prudent to await the results of more probative studies involving much larger, statistically representative samples and more elaborate measures of reasoning style and performance. In any case, future research is needed to address these issues, insofar as the judgment and decision-making propensities of large segments of the citizenry are of paramount importance when it comes to defining and attaining normative standards of democratic functioning. In conducting research into bullshit receptivity in democratic societies, we would do well to keep Frankfurt's (2005) admonition in mind, namely that — because of its utter contempt for the distinction between truth and falsity — “bullshit is a greater enemy of the truth than lies are” (p. 61).

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