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Review

Bullshit can be harmful to your health: Bullibility as a precursor to poor decision-making

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Abstract

Bullshitting is characterized by sharing information with little to no regard for truth, established knowledge, or genuine evidence. It involves the use of various rhetorical strategies to make one's statements sound knowledgeable, impressive, persuasive, influential, or confusing in order to aid bullshitters in explaining things in areas where their obligations to provide opinions exceed their actual knowledge in those domains. Distinct from gullibility (i.e., a propensity to accept a false premise in the presence of untrustworthiness cues), we highlight the research on *bullibility* (i.e., believing bullshit even in the face of social cues that signal something is bullshit) and its links to erroneous judgments and decisions. A deeper understanding of bullibility is critical to identifying and correcting poor decision-making.

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Corresponding author: Petrocelli, John V. (petrocjv@wfu.edu)**Current Opinion in Psychology** 2024, **55**:101769This review comes from a themed issue on **The Psychology of Misinformation 2024**Edited by **Gordon Pennycook** and **Lisa and K. Fazio**For a complete overview see the [Issue](#) and the [Editorial](#)

Available online 23 November 2023

<https://doi.org/10.1016/j.copsyc.2023.101769>

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Keywords

Bullshit, Bullshitting, Bullibility, Lying, Deception, Judgment, Decision-making.

In light of the prevailing environment of misinformation, increasing attention has been given to research investigating the factors influencing the dissemination and acceptance of misinformation. A considerable portion of this research has been aimed at identifying the cognitive variables that might predispose one to believe bullshit, revealing negative associations between susceptibility to various forms of bullshit and factors such as self-regulatory resources [1], analytic/reflective thinking, open-minded cognition, intelligence, and metacognitive insight [2,3]. However, a crucial aspect of

the efficacy of decision-making is one's to discern fact from fiction. The predisposition to believe bullshit, despite available social cues signaling claims that are not grounded in truth (i.e., bullshit), is a characteristic we define here as *bullibility*.

While a lie requires the communicator to have an intent to deceive along with regard for the truth, *bullshit* does not require an intent to deceive, but does require the communicator to have little to no regard for truth, evidence, or established knowledge [4–6]. Distinct from lying [5,6], *bullshitting* encompasses a wide range of rhetorical tactics used to create an impression of expertise or confidently convey information. These strategies are utilized for the purposes of impressing, persuading, influencing, or confusing others, as well as enhancing or elaborating on subjects whereby one's subjective obligations to express an opinion surpass their actual knowledge in the domain [5,7]. For example, the day before Georgia's runoff election, Republican Senate candidate Herschel Walker decried the use of pronouns in association with the U.S. military: "But now they're bringing pronouns into our military. I don't even know what the heck is a pronoun, I can tell you that." [8]. By his very own admission, Walker did not appear to know what he was talking about and he was not concerned with truth—and this is what makes Walker's statement bullshit. If Walker believed the notion that the people were not actually "bringing pronouns into the military" (or that he does know what pronouns are), but said they are (but said he did not know), then Walker would have been lying.

A growing body of literature supports the concept of bullibility and identifies its correlates. Here, we review these different perspectives in the literature, arguing that bullibility serves a mediating role between the conditions under which bullibility appears to emerge (i.e., individual differences, cognitive abilities, contextual variables) and the undesirable consequences of bullibility for decision-making.

Conditions of bullibility

Research [6,9] indicates that many individuals suffer from a "bullshit blind spot" or "bullibility," where they accept false information as truth without deducing from social cues that a source is either disinterested in truth

or has forgone reasonable efforts to ascertain the truth. While a gullible person may believe a false premise despite detecting signs of dishonesty [10], a bullible individual is a relatively careless thinker who disregards signals of bullshit. Being bullible means one is receptive to bullshit (i.e., bullshit receptivity) *and* lacks the ability to differentiate between bullshit and accurate information (i.e., bullshit sensitivity) *when* social cues that would otherwise signal that something is bullshit are readily available. Any factors that appear to give rise to bullible behavior also appear to be associated with poor decision-making (or decisions associated with undesirable outcomes; see Figure 1). A number of individual differences that appear to give rise to bullible behavior.

Individual differences

Demographics

With increasing age [11–13] and higher levels of education [12–14], individuals tend to exhibit reduced susceptibility to (and heightened discernment of) bullshit. However, individuals who are more susceptible to *pseudo-profound bullshit* (i.e., seemingly profound claims presented as meaningful and true but actually vacuous), and generally unable to differentiate it from genuinely profound information, often hold stronger religious beliefs [11–13,15,16]. There appears to be no connection between bullibility and sex or gender [11–13].

Collectivism

Collectivism is the aspect of human culture that sensitizes people to connect with others, valuing connection and finding ways to “fit in” with others [17]. One who possesses a strong collective tendency may be especially likely to express belief in bullshit claims as it may serve to connect with others. Similar to using bullshit to connect with others and a need to belong

[18], the more collectivistic people are the more likely they are to *report* beliefs in bullshit-based astrology, fortune-telling, palm reading, false memories of fabricated news, randomly-generated empty claims, yeasaying (i.e., agreeing regardless of content), and fake news [19].

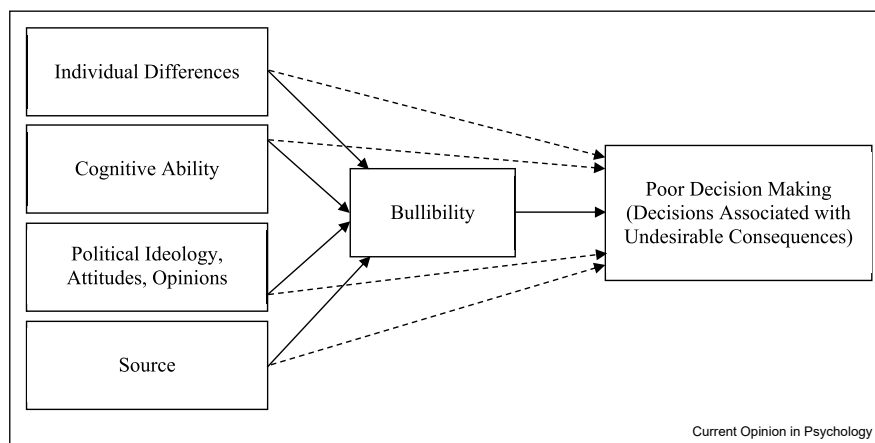
Bullshitting propensity

In their study, Littrell et al. [2] administered a set of 10 politically neutral news headlines to participants in picture form—half were factual and half were completely false. Participants evaluated the accuracy of each headline’s claim. Pseudo-profound bullshit receptivity was positively associated with self-reported persuasive and evasive bullshitting. Furthermore, people who exhibit the ability to create convincing and seemingly accurate bullshit are more likely to encounter difficulty distinguishing between meaningless pseudo-profound content and genuinely meaningful motivational quotes [20].

Political ideology

Existing data on the links between political ideology and bullibility are mixed. Some data suggest that bullibility is not uniquely linked to political extremism on either end of the political spectrum [21,22]. In two studies aimed at investigating susceptibility to partisan fake news, Pennycook and Rand [23] explored whether individuals use their reasoning abilities to convince themselves that statements aligning with their ideologies are true or if they use these abilities to effectively distinguish between fake and real news reports. Their findings suggest that susceptibility to fake news is more influenced by a lack of analytical thinking rather than by partisan biases, motivations, or political ideology. Furthermore, Sterling et al. [24] demonstrated that individuals with higher levels of bullibility (and an intuitive, non-reflective cognitive style in general) were more likely to trust a Republican-led government and express

Figure 1



Conceptual model of the relationships between personality and individual differences, cognitive ability, source, bullibility and poor decision making.

a preference for a free-market economic system (but see 25).¹

More recent studies conducted by Petrocelli [26] and Baptista et al. [14] demonstrated the link between receiver political orientation and political bullshit receptivity is moderated by speaker political orientation—political bullshit receptivity is high (low) and bullshit sensitivity is low (high) when the political orientations of the receiver and speaker match (mismatch). Furthermore, significant main effects of political orientation on bullshit receptivity tend to indicate a positive association between conservatism and receptivity to political bullshit. These findings align with earlier research that explored the connection between political orientation and variables relevant to bullshit detection, such as cognitive reflection [27,28]. Additionally, Petrocelli [26; Experiment 1] and Baptista et al. [14] replicated previous reports suggesting that conservatism is associated with higher levels of bullshit receptivity and relatively lower levels of bullshit sensitivity [13,25,29–35].

Cognitive ability

Highly bullible individuals tend to prefer an intuitive thinking style (i.e., autonomous and not requiring significant working memory capacity or self-regulatory resources) over an analytic/reflective thinking style (i.e., deliberate, effortful, relying on working memory capacity and self-regulatory resources). Numerous studies consistently show that cognitive reflection, often measured by variations of the Cognitive Reflection Test [36], negatively correlates with pseudo-profound bullshit receptivity and positively correlates with pseudo-profound bullshit sensitivity [2,3,12,13,16,28,38–41]. Consistent with these findings, bullibility is negatively associated with numeracy [12,13,16,24], general cognitive ability [2,16,20,37], intellect [37], and intelligence [16,24]. Additionally, bullibility shows negative associations with creativity on remote associates tests and fluency on alternate uses tasks [42], actively open-minded thinking [39,43], problem-solving ability on compound remote associates tests [40], and abstract reasoning [24].

Bullibility tends to be positively associated with a proclivity for utilizing heuristics and biases in judgment [16,24], ontological confusion (i.e., believing something that is true only in a metaphorical sense is true in the literal sense; 11, 16, 37, 38, 44), placing unwarranted faith in one's own intuitions [16,24,28,41,45,46], and illusory pattern perception [41]. Interestingly, no studies have reported any association between the need for cognition and bullibility [16,24,28,37,45].

Self-perceived bullshit detection skills

Recent research conducted by Littrell and Fugelsang [9] yielded the first empirical evidence of an inverse relationship between confidence in detecting bullshit and actual performance. On the one hand, those who *actually* excelled at detecting misinformation tended to be oblivious to their own superior abilities and, surprisingly, perceived themselves as slightly less competent than others (i.e., *bullshit blindsight*). On the other hand, others were not only unaware of their vulnerability to bullshit, but they harbored a belief they possessed superior skills in identifying bullshit (i.e., *bullshit blind spot*). Littrell and Fugelsang's [9] findings have significant implications, suggesting that the most receptive individuals to misinformation will not only struggle to detect falsehoods but also maintain an unfounded conviction that they are superior at it (i.e., less biased) than the average person.

Self-regulatory resources

Given the well-established connection between cognitive ability and the perception of bullshit (including both receptivity and detectability), individuals are more susceptible to accepting bullshit when their cognitive abilities are depleted. In both of Petrocelli et al.'s [1] experiments, participants demonstrated greater levels of receptivity to bullshit and less sensitivity in detecting it when they had fewer self-regulatory resources available. Consistent with these findings, Brown et al. [47] discovered conditions in which threats to an individual's subjective sense of belongingness and meaning-making led to increased receptivity to bullshit.

Source

As a source, bullshitters appear to have greater influence on attitudes than do liars [48,49]. Bullibility appears to be influenced by the origin of the bullshit being presented. Forer's [50] classic study provides one of the earliest empirical demonstrations of bullibility—participants disregarded the fact that descriptive statements were applicable to almost anyone (e.g., “You have a great deal of unused capacity which you have not turned to your advantage”), believing false information about themselves merely because it sounded plausible and came from an alleged expert. Known as the *Barnum effect*, this phenomenon can be further accentuated by the *guru effect*, where the most obscure claims can be perceived as profound as long as they are attributed to an intellectual guru and, perhaps, difficult to comprehend (e.g., “We are non-local beings that localize as a dot then inflate to become non-local again.”—Dalai Lama; 51,52). Similarly, people tend to make bullible judgments when encountering meaningless statements from individuals who appear to share their own political beliefs [14,26,53].

Bullibility and bad decision-making

If a predisposition to believe bullshit, despite available social cues signaling claims that are not grounded in

¹ Simonsohn's [25] reanalysis of Sterling et al.'s data, using a two-lines test, indicated the link between a component of bullibility (i.e., bullshit receptivity) and free-market ideology is inconclusive.

truth, influences the development and maintenance of beliefs about what is true, it is reasonable to expect bullbility to be associated with undesirable decisions. For instance, Wood et al. [54] discovered participants receptive to pseudo-profound bullshit were more susceptible to responding positively to the risks and benefits of a mass-market scam offer. Such effects persisted even after statistically controlling for age and education levels.

Given that peoples' beliefs about what is true are foundational to their judgments and decisions, it is unsurprising to find bullbility linked to a broad range of bad judgments and decisions [2,3,23,55]. People use social cues, such as the political orientation of the communicator of bullshit, to either: 1) comprehend or disambiguate the content (biased cognitive processing), or 2) perceive the content as proattitudinal—both of which lead to biased judgments about a message's profundity [14,26]. Whether individuals engage in deep cognitive elaboration or not, when presented with political statements that align with their views (even on a superficial level), they tend to respond positively and endorse such content. However, the same content may be perceived negatively and quickly dismissed as spin or misleading when communication cues suggest it goes against their preexisting attitudes [56–58]. Such politically biased processing has been found to influence rational choice and heuristic information processing [59], lead to group polarization and source-credibility effects [60,61], result in biased information search [62,63], and affect the way factual misinformation is processed [64]. These findings underscore the complexities involved in shaping political beliefs and decisions.

Pronounced bullbility is positively associated with the strength of conspiracy theory beliefs [11,15,16,28,29,46,65,66], dangerous-world beliefs (e.g., “Any day now chaos and anarchy could erupt around us.”) and hyperactive agency detection (i.e., tendency to attribute intent to otherwise ambiguous events; 15), as well as confirmation biases and a failure to consider alternative possibilities [67]. Bullbility is also positively associated with science denialism [66], endorsement of complementary and alternative medicines (e.g., homeopathy, energy healing, essential oils; 11,16,68,69), paranormal beliefs [11,16,37,38,66], pseudoscientific beliefs [66], and supernatural beliefs [28].

Perhaps the most significant repercussion of bullbility is the heightened probability of sharing and disseminating misinformation further. Unfortunately, individuals with greater levels of bullbility and lacking abilities to distinguish between fact and fiction tend to display greater willingness and intentions to share various forms of misinformation, including bullshit and fake news [11,23,70,71]. Future research efforts would do well to

not equate mere disagreement with bullshit, while striving to assess both observers' proficiency in detecting bullshit and their willingness to confront bullshitters about their deceptive behavior.

Conclusion

The past half-decade of research efforts has significantly contributed to our understanding of the conditions under which bullshitting behavior tends to emerge [5] and the traits associated with bullbility (i.e., high receptivity to bullshit while lacking the ability to detect bullshit in the face of bullshit cues). Such enhanced knowledge should equip observers with more effective vantage points to identify deceptive behavior in others. Notwithstanding, empirically-validated interventions to enhance bullshit detection are limited. There is also a substantial need to gain a deeper comprehension of the inclination to “call bullshit” and to identify the most successful approaches to doing so without causing undesirable communicative consequences (e.g., shutting down communication lines altogether). Future research efforts may do well by refraining from equating mere disagreement with bullshit, while striving to assess both observers' proficiency in detecting bullshit and their willingness to confront bullshitters about their deceptive behavior. By addressing these areas, future studies can make valuable contributions to improving the detection and handling of deceptive communications.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data was used for the research described in the article.

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