Bullshitting and Bullibility – Conditions and Consequences

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Abstract: Bullshitting involves communicating with little to no regard for truth, established knowledge, or genuine evidence in a way that helps people impress, persuade, influence, or confuse others, or to embellish or explain things in an area in which their obligations to provide opinions exceed their actual knowledge in those domains. Put another way, bullshitting encompasses a set of rhetorical strategies employed to help a person sound like they know what they are talking about when they really do not. Although bullshit can be useful to individual bullshitters as a persuasive tool, it can have considerable negative consequences for learning, memory, attitudes, opinions, and beliefs about what is believed to be true. Deeper understanding of the conditions under which bullshitting and general bullibility (i.e., consistent failure to discern bullshit from nonbullshit despite social cues signaling something is bullshit) are likely to emerge should position observers with a more successful vantage point to detect this deceptive behavior in others.

Keywords: bullshit, bullshitting, bullibility, deception, persuasion, misinformation, disinformation

From urban legends to fortune telling, homespun theories to medicine, and beyond the technology of business investing, people exhibit a pervasive tendency to communicate about things they really know little to nothing about. *Bullshit* is what results from communicating something with little to no regard for truth, established knowledge, or genuine evidence (e.g., "Look, I really don't care what Neil deGrasse Tyson or any other astrophysicists have to say about it—Pluto is, and always will be, a planet in our solar system!" Frankfurt, 1986; Petrocelli, 2018, 2021a). *Bullshitting* encompasses a wide range of rhetorical tactics employed by individuals to create an impression of expertise and confidently convey information. These strategies may be utilized for the purposes of impressing, persuading, influencing, or confusing others, as well as enhancing or elaborating on subjects whereby their perceived obligations and/or social pressure to express their opinions surpasses their actual knowledge in those specific areas (e.g., "Look, Jimmy Connors has got to be the greatest tennis player ever. Jimmy invented the two-handed backhand, won like over 50 Grand Slam singles titles, and maintained the world No. 1 ranking for like over 15 years or something. Jimmy is clearly the greatest." Littrell et al., 2021a; Petrocelli, 2018).

Harry Frankfurt's (1986) philosophical treatise, *On Bullshit*, achieved remarkable commercial success within the field of philosophy when it was republished as a book in 2005. However, despite the widespread reception of Frankfurt's work, empirical research on the etiology and potential ramifications of bullshitting remains in its nascent stages. Moreover, a comprehensive review of the existing literature is yet to be published. The current review presents a systematic synthesis of the current empirical research, examining the antecedents of bullshitting, the things that make people especially receptive to bullshit, and their consequent effects.

Frankfurt's (1986) primary focus was to distinguish bullshit/bullshitting from lies/lying. While the liar intentionally attempts to deceive their interlocutor – which demands a regard for the truth – the bullshitter is one who simply tries to appear to their interlocutor as if they are interested in the truth, often with impressive, colorful exaggerations and embellishments. As such, the bullshitter is free to operate with a minimal concern for truth, evidence, or established knowledge. This is a key distinction between lying and bullshitting; the liar's goal is to instill within their audience a false belief whereas the bullshitter's goal is to instill their audience with a misleading, or otherwise exaggerated, impression (Frankfurt, 1986; Littrell et al., 2021a; Petrocelli, 2018, 2021a). Hence, although the substance of a statement does establish its truth or falsity, it does not determine whether it constitutes a lie or bullshit. The liar has great care for the truth, as they attempt to deceive others knowingly and intentionally

(DePaulo et al., 1996; Ekman, 1985; Frankfurt, 1986; Williams, 2002). The individual who bullshits disregards the truth of their assertions and shows no concern for evidence either supporting or contradicting their statements. Their underlying motivation is not primarily aimed at deception. In fact, it is possible that, by happenstance or coincidence, a bullshitter may convey something that is factually accurate. However, even if this occurs, the bullshitter remains unaware because they simply do not care about the actual truth. For example, the day before Georgia's runoff election against Democratic Senator Raphael Warnock Republican Senate candidate Herschel Walker decried the use of pronouns in association with the US 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. I'm sick and tired of this pronoun stuff. What I want our military men and women to do is to be at war fighting." (Mordowanec, 2022). 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 an example of bullshitting. 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.

Within the realm of bullshitting, the intent behind a misleading or false statement determines whether it falls into the category of misinformation (i.e., information that is *false*, mistaken, and can be misleading) or disinformation (i.e., information that is *deliberately false*, formed with the intention of misleading, deceiving, or confusing someone so as to influence the decisions or opinions of those who receive it; Fetzer, 2004a, 2004b; Jackson & Jamieson, 2007; Lewandowsky et al., 2013; Uscinski et al., 2024). This differentiation becomes crucial because while the bullshitter lacks concern for truth, the content they disseminate is not necessarily false. Therefore, if the bullshit happens to be false, it qualifies as misinformation if there is no intention to deceive or disinformation if such intent exists. Moreover, making a clear distinction between misinformation and disinformation poses a formidable challenge in practice because it hinges not only on content but also on intent and consideration for truth. Such complexity underscores the necessity for additional contextual information or insights into the communicator's motives to draw a more definitive line between the two forms of deception.

The distinctions between bullshitting and lying are also relevant to the distinction between misinformation and disinformation. False information, as in the cases of misinformation and bullshit, can mislead people (i.e., cause people to hold false beliefs) whether it results from an honest mistake, negligence, unconscious bias, or just overly subtle sarcasm. Deliberately false information, as in the cases of disinformation and lies, is formed with the intention of deceiving others in some way. Lies can only be disinformation or attempted disinformation (i.e., providing true information despite an intention to deceive), while bullshit can be misinformation, disinformation, or true information (see Figure 1).

Bullshitting Characteristics

Important to the empirical study of bullshitting is its distinct difference from lying (Frankfurt, 1986; Littrell et al., 2021a; Pennycook et al., 2015; Petrocelli, 2018; Stokke, 2018, 2019). Although there is some debate about its components, there is agreement that saying something believed to be false is a necessary component to lying (e.g., Mahon, 2008; Rutschmann & Wiegmann, 2017). However, it is also recognized that this cannot be all there is to lying; otherwise, irony, acting, and sarcasm (e.g., "That's great—just what I needed right now.") would be considered lying. For this reason, most (but not all) scholars in both psychology and philosophy adhere to the traditional definition of lying that includes the speaker's motivation. A lie is an assertion that the communicator believes to be false and communicates with the intention to deceive (e.g., Arico & Fallis, 2013; Augustine, 395/1887; Frankfurt, 1986; Turri & Turri, 2015; Williams, 2002). Thus, a lie is not rooted in the truth-value of the assertion but primarily in intentions of the communicator. The liar intends to deceive and believes the assertion is false.

Lying and bullshitting are similar in that both the liar and bullshitter behave as though their interest is in communicating the truth. However, as the liar's intention is to deceive others into a false belief, he/she has great concern for the truth because it is something that must be avoided at all costs (DePaulo et al., 1996; Ekman, 1985; Frankfurt, 1986; Williams, 2002). Conversely, the bullshitter's intention is merely to mislead and manipulate others into believing he/she knows what he/she is talking about, rather than instill a false belief. As such, avoiding the truth is not necessarily required for achieving the bullshitter's goals; thus, he/she is free to carry on unburdened by any concern for the truth-value of his/her assertions or even whether there exists evidence to support them. In fact, either by accident or chance, a bullshitter may communicate something that is actually true/correct—but even the bullshitter would not know it because the bullshitter does not really care what the truth actually is. As noted by Mears (2002), the liar is narrowly
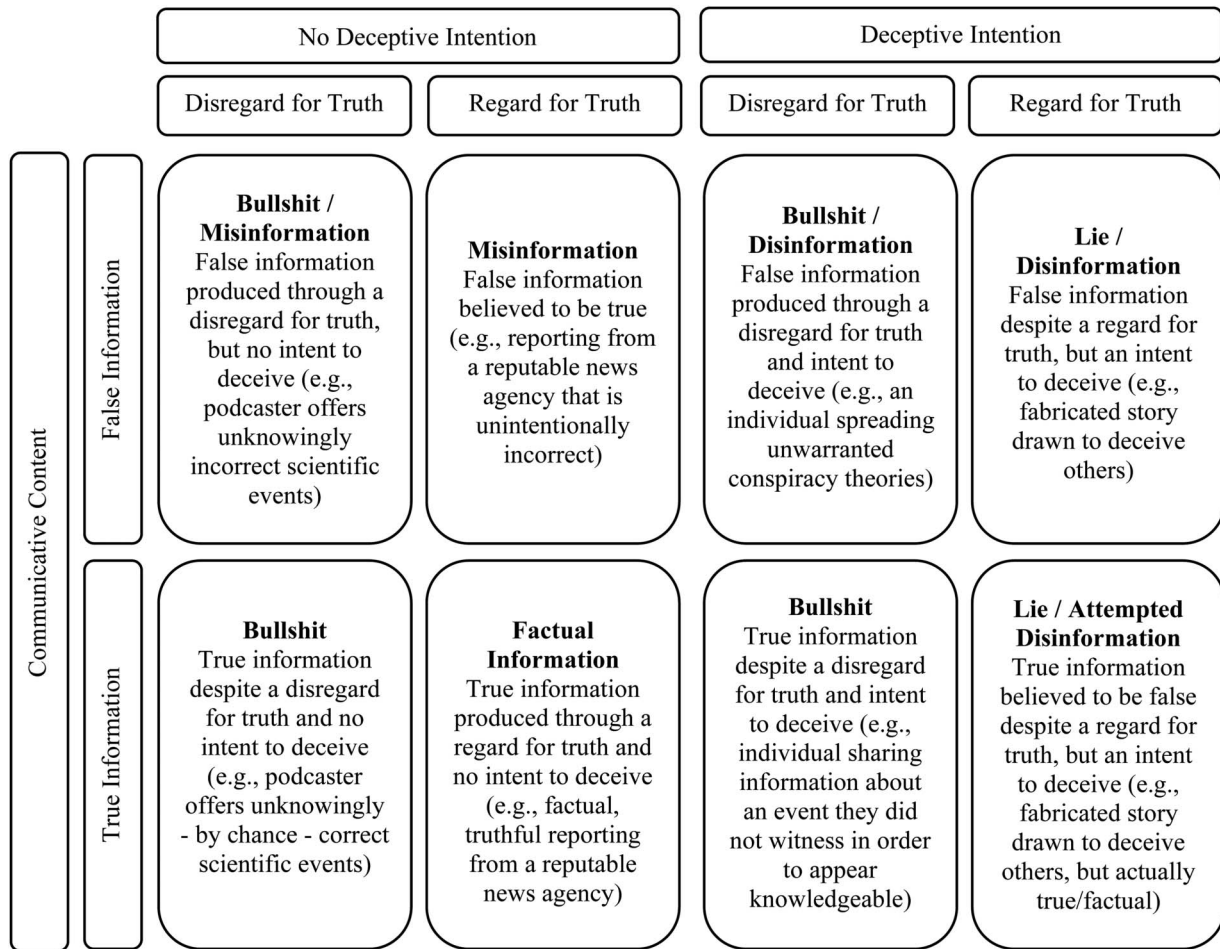
		No Deceptive Intention		Deceptive Intention	
		Disregard for Truth	Regard for Truth	Disregard for Truth	Regard for Truth
Communicative Content	False Information	**Bullshit / Misinformation** False information produced through a disregard for truth, but no intent to deceive (e.g., podcaster offers unknowingly incorrect scientific events)	**Misinformation** False information believed to be true (e.g., reporting from a reputable news agency that is unintentionally incorrect)	**Bullshit / Disinformation** False information produced through a disregard for truth and intent to deceive (e.g., an individual spreading unwarranted conspiracy theories)	**Lie / Disinformation** False information despite a regard for truth, but an intent to deceive (e.g., fabricated story drawn to deceive others)
	True Information	**Bullshit** True information despite a disregard for truth and no intent to deceive (e.g., podcaster offers unknowingly - by chance - correct scientific events)	**Factual Information** True information produced through a regard for truth and no intent to deceive (e.g., factual, truthful reporting from a reputable news agency)	**Bullshit** True information despite a disregard for truth and intent to deceive (e.g., individual sharing information about an event they did not witness in order to appear knowledgeable)	**Lie / Attempted Disinformation** True information believed to be false despite a regard for truth, but an intent to deceive (e.g., fabricated story drawn to deceive others, but actually true/factual)

Figure 1. Distinct communicative content types distinguished by truth, deceptive intention, and regard for truth.

focused on denying a particular truth, whereas the bullshitter's is more diffusely focused on *getting away* with the potential misrepresentation of truth. The goals of a bullshitter may include communicating a particular social identity or fulfilling other types of social versus epistemological functions (c.f., Mears, 2002).

Frankfurt (1986) surmised that bullshitting is often unavoidable: "Bullshit is unavoidable whenever circumstances require someone to talk without knowing what he is talking about. Thus, the production of bullshit is stimulated whenever a person's obligations or opportunities to speak about a topic are more extensive than his knowledge of the facts that are relevant to that topic." (p. 99). Indeed, it is widely acknowledged that individuals are often inclined to provide judgments and opinions on matters in which they lack any substantial knowledge (Herr et al., 1983). It is unrealistic to expect people to possess informed opinions on every conceivable topic, and requiring all communication to adhere strictly to the standard of verifiable evidence is an exceedingly unreasonable expectation. Additionally, there is also a distinct difference in

social perceptions and reactions to the liar and the bullshitter in these types of contexts. Indeed, common experience shows that when people feel lied to, they are usually very unhappy with the liar and deliver great social consequences for the behavior. However, in response to bullshit, research by Petrocelli, Silverman, and Shang (2023) showed that observers consistently passed it off as a mild offense and assumed the bullshit was harmless—and this is where observers cannot be more wrong.

Consistent with Frankfurt's (1986) insidious bullshit hypothesis (i.e., bullshitting is evaluated less negatively, but more insidious, than lying), Petrocelli, Silverman, and Shang (2023) found social perceptions (i.e., evaluation and perceived motives) of bullshitting to be less negative than that of lying, identifying ignorance, dishonesty, and opinion expression as mediators of a bullshit/lie-evaluation link. Furthermore, relative to the lies of a liar, bullshit appeared to have a more potent impact on the formation of attitudes toward novel attitude objects endorsed by the bullshitter.

Conditions of Bullshitting

People may find themselves communicating about things they know little to nothing about, without regard for truth, evidence, or established knowledge for a variety of reasons (Petrocelli, 2021a). As such, initial, empirical examinations of bullshitting showed that bullshitting can emerge under specific conditions and when specific motivations are activated.

Obligations to Provide an Opinion

People bullshitted significantly more when social cues made them feel obligated to provide an opinion about something of which they knew relatively little about (Petrocelli, 2018). As Frankfurt (1986) noted people often feel obligated to speak as though they possess *informed* opinions about everything, and people appear to be especially likely to bullshit when it is clear that the social expectations to have an opinion are relatively great. As others have demonstrated quite conclusively (Brem & Rips, 2000; Herr et al., 1983; Kuhn, 1991), people readily speak at length about almost anything when they feel the slightest obligation to do so. People readily comment about fictious diseases and how to prevent/treat them and fictious animals and how to care for them (Petrocelli, 2021a), even when they are repeatedly reminded that they are under no obligation to provide any comments and will receive no penalty for abstaining (Petrocelli, 2018). In an experiment investigating observers' thoughts about a social target, the only time participants refrained from bullshitting was when they possessed little knowledge of the subject, when they were not obligated to provide an opinion, and when it was obvious to the participants that their audience happened to be considerably knowledgeable about the subject (Petrocelli, 2018).

Knowledge and Expertise

People generally perceive themselves to engage in relatively less bullshitting as their self-reported knowledge of the topic under discussion increases (Petrocelli, 2018). Yet, people with advanced knowledge and expertise (e.g., doctors and other medical professionals) may feel especially obligated, if not pressured, to *know everything*, and thereby resort to bullshitting on occasion (see Eddy, 1982; Gigerenzer et al., 2007; Hoffrage & Gigerenzer, 1998). Brem and Rips (2000) demonstrated that when people possess adequate knowledge about a topic, they usually provide arguments based on genuine evidence and refrain from providing baseless arguments. That is, when people are knowledgeable, they do not need to bullshit—they are more aware of evidence and will use it. On the other hand, when people are unfamiliar with a topic, they bullshit when they feel obligated to share their opinions and expect their bullshit to be accepted.

While knowledgeable people appear less likely to bullshit in their domain of expertise, what about people who just think they are knowledgeable? If unknowledgeable people feel knowledgeable about a topic, they are especially likely to bullshit. Not only are people notoriously bad at assessing their own competence and knowledge, people are likely to bullshit when they feel more knowledgeable about something than their audience (Petrocelli, 2018). That is, a feeling of knowing, not actual knowledge, can be enough to produce bullshit (Paulhus et al., 2003). Kruger and Dunning (1999) conducted research illustrating that individuals often possess excessively positive perceptions of their own capabilities in both social and intellectual realms. Such tendencies arise, in part, from the fact that individuals lacking expertise in a specific field struggle to differentiate between competence and incompetence. Individuals who lack competence in a certain area are prone to drawing erroneous conclusions and making unfortunate choices due to their limited awareness of their own incompetence. Interestingly, the cognitive abilities required for competence in a particular domain seem to be the very same abilities necessary for recognizing competence (see Vitriol & Marsh, 2018).

The problem is that with a bit of knowledge, expertise, or the right lingo, bullshit can be convincing (Eriksson, 2012; Ilić & Damnjanović, 2021; Sperber, 2010). In a study conducted by Turpin et al. (2021), participants' capacity to generate seemingly accurate and impressive bullshit was examined as a genuine indicator of their intelligence. Surprisingly, the findings revealed a positive correlation between the ability to produce compelling bullshit and an individual's level of intelligence. Moreover, individuals who demonstrated higher proficiency in delivering satisfying bullshit were perceived by observers as being more intelligent ($r = .95$). A bullshitter's ability to produce satisfying bullshit may function as an effective negotiating strategy as well as a signal of intelligence and ability. Individuals with a combination of high Machiavellianism and high verbal reasoning skills also produce relatively more bullshit (Blötner, 2024). Knowledge is also positively associated with self-reported tendency to produce persuasive bullshit (Čavojová & Brezina, 2021). Self-reported tendency to produce both persuasive and evasive bullshit is negatively associated with cognitive ability (Littrell et al., 2021a).

Ease of Passing Bullshit

Some people are more likely to bullshit when they expect it to be relatively easy to pass bullshit. That is, people will

bullshit when they anticipate ease in receiving a *social pass* of acceptance or tolerance for their communicative contributions. Consistent with the ease of passing bullshit hypothesis, bullshitting appears to be attenuated under conditions of social accountability (Tetlock, 1992; Tetlock et al., 1989). Petrocelli (2018) demonstrated that when people are expected to explain their reasoning for a position to another person, bullshitting can be attenuated. Furthermore, the effect of accountability on bullshitting was conditional upon the expected attitude of the audience. When the expected attitude of the audience was consistent with the speaker's attitude, speakers appeared free to bullshit, but when the expected attitude of the audience was inconsistent with the speaker's attitude, speakers significantly attenuated their bullshitting.

Self-Regulatory Resources

Because bullshitting presumably requires relatively fewer mental resources than reasoning and communicating something meaningful, with a concern for truth, genuine evidence and/or established knowledge, people bullshitted significantly more when their self-regulatory resources (i.e., psychological resources people use to manage and control their own thoughts, feelings, and behaviors; Baumeister et al., 2007) were relatively depleted than when they were not. Petrocelli, Watson, and Hirt (2020) directly manipulated self-regulatory resources. In one study, available regulatory resources were manipulated by having participants write three short essays, for 5 minutes each. Participants assigned to a nonresource-depleting writing task were instructed to not use the letters x and z anywhere in their essays, whereas participants assigned to the resource-depleting writing task were instructed to not use the letters a and n anywhere in their essays. A second study matched or mismatched the eligible time of study participation (i.e., either 8:00–8:30 a.m. or 8:00–8:30 p.m.) with participants' circadian rhythm as measured by the Morningness/Eveningness Questionnaire (Smith et al., 1989), whereby mismatching was expected to be relatively depleting of regulatory resources. In both of Petrocelli et al.'s (2020) studies, participants significantly refrained from bullshitting only when they possessed adequate self-regulatory resources and expected to be held accountable for their communicative contributions.

We find it worthy of noting the theory of self-regulatory resource depletion has faced challenges from two primary sources: meta-analyses (E. C. Carter et al., 2015) and a large-scale, multisite registered replication study (Hagger et al., 2016). While these studies raised doubts about the theory, they have been subject to methodological and analytical critiques (Baumeister & Vohs, 2016; Friese et al.,

2019; Garrison et al., 2019; Inzlicht et al., 2015; Vohs et al., 2021). While the debate continues, recent evidence points toward a significant reduction in the size of self-regulatory resource depletion effects, if they exist at all. The earliest reports of the theory likely overstated the magnitude and robustness of the phenomenon, and it appears likely that self-regulatory resource depletion effects may only manifest in performance domains that require substantial cognitive or self-regulatory resources (e.g., evidence-based communication free of bullshit; Inzlicht & Friese, 2019). Moving forward, researchers need to critically reevaluate the theoretical foundations of self-regulatory resource depletion and conduct more rigorous, high-powered studies to determine whether there is a genuine underlying effect worth further investigation (Dang & Hagger, 2019; Vadillo, 2019; Wenzel et al., 2019).

Motivations

Bullshitting is influenced by motives similar to the motives for lying. When people lie, they usually do so to protect themselves from embarrassment, make a positive impression, avoid a negative judgment, gain an advantage, or avoid punishment (Craig, 2017; Ekman, 1985; Meibauer, 2019). Although everyone, at one time or another, has these motives, people with a high propensity to bullshit hold these motives relatively often.

In an examination of the conditions under which bullshitting may be persuasive, Petrocelli (2021b) demonstrated that bullshitting can be an effective means of influence when arguments are weak, yet it can undermine persuasive attempts when arguments are strong. Results also suggested that bullshit frames may cue peripheral route processing of persuasive information relative to evidence-based frames that appear to cue central route processing. Thus, bullshitting may be used under specific conditions because it is in fact persuasive.

Likewise, Littrell et al. (2021a, 2021b) established evidence for two primary motives underlying bullshitting: persuasive and evasive bullshitting. Persuasive bullshitting entails the deliberate use of positively biased misrepresentations concerning one's knowledge, attitudes, or abilities. Such behavior is driven by a desire to impress and gain acceptance from others, often by portraying oneself as more intelligent or knowledgeable on a subject than one truly is (e.g., A used car salesperson trying to sell a high-mileage sedan with some underlying issues: "This beauty right here? It's a one-owner vehicle, barely broken in. The previous owner was a little old lady who only drove it to church on Sundays. It's got that smooth-as-silk V6 engine—they don't make 'em like this anymore. The high mileage? That's nothing to worry about. These

engines are known to run 300,000 miles easy. In fact, I'd say the higher mileage is a plus—means all the kinks have been worked out. And that check engine light? Probably just a loose gas cap. These sensors are so sensitive nowadays, they pick up every little thing. Tell you what, I'll throw in a free detail job—she'll look brand new when you drive her off the lot."). Additionally, persuasive bullshitting involves the use of language intended to be perceived as superficially interesting and/or exciting. In fact, bullshit can be a useful agent of social influence and persuasion (Eriksson, 2012; Ilić & Damnjanović, 2021; Petrocelli, 2021b; Petrocelli, Silverman, & Shang, 2023; Sperber, 2010; Turpin et al., 2019, 2021), and attitude polarization (Petrocelli, 2018, 2022). Evasive bullshitting involves employing strategic evasiveness or bluffing as a response to inquiries in order to avoid potential social consequences or undesirable outcomes. The motivation behind evasive bullshitting is to circumvent providing direct answers or actively participating in a conversation where straightforward responses might lead to negative repercussions for oneself or others. Evasive bullshitting can be utilized for both self-serving purposes and noble or altruistic intentions, such as navigating polite conversations (e.g., When excited Bobby is thrilled about an expensive painting he just purchased and asks unimpressed Joy her opinion, Joy responds with: "Wow, that's certainly a statement piece! You know, art is such a personal thing, isn't it? I'm always amazed at how different pieces speak to different people. The way the artist has used color here is really... bold. It's the kind of piece that really makes you think of Bob Ross."). Evasive bullshitters (e.g., politicians) employ bullshit as a pragmatic approach to evade lying and minimize the risk of reputational harm. By resorting to evasive bullshit in their interactions with the press, they aim to safeguard votes (avoid self-harm) or preserve national security (avoid harm to others) that would otherwise be compromised.

In an examination of the use of self-reported workplace bullshit and its effectiveness, Kiazad et al. (2021) found workers report using bullshit to *get ahead* (e.g., status-promotion by acting responsible for desirable outcomes). Indeed, people who perceive themselves to be at a relatively lower status (e.g., at work) show a tendency to increase their use of unnecessary and confusing jargon (often characteristic of bullshit) in their attempts to impress others and increase their status (Z. C. Brown et al., 2020). However, Kiazad et al.'s participants also reported using bullshit *get out* (e.g., status-prevention by dissociating oneself from undesirable outcomes), *get along* with others (e.g., communion-promotion to connect with desirable others), and *get around* (e.g., communion-prevention with undesirable others; also see Ferreira et al., 2022).

Personality and Individual Differences

Similar to using bullshit to connect with others and a need to belong (Kiazad et al., 2021), the more collectivistic people are (i.e., a tendency to cooperate and share with others, value connection and fitting in with similar/liked others), 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, yea-saying (i.e., agreeing regardless of content), fake news, and that Wi-Fi kills sperm cells (Lin et al., 2022). Self-reported, evasive bullshit production is also associated with greater Machiavellianism (Blötner & Bergold, 2023). Both the self-reported tendencies to produce persuasive and evasive bullshit are positively associated with greater overconfidence and over-claiming and negatively associated with honesty, sincerity, self-deceptive enhancement, and impression management (Littrell et al., 2021b) as well as with both honesty-humility (i.e., straight forwardness, avoidance of deceit) and sincerity (i.e., avoidance of flattery and ingratiation tactics; Ashton et al., 2023). Overclaiming is also positively associated with narcissism, self-deceptive enhancement, and observed self-enhancement (Paulhus et al., 2003).

Individuals with a high need for evidence are those who possess a healthy degree of skepticism and find it important to hold only those attitudes that are supported by evidence. High-need-for-evidence individuals refrain from believing in something just because there are pragmatic benefits in believing it, and they do not find it annoying when people ask them to provide reasons for their opinions. Instead, high-need-for-evidence individuals determine whether something is good or bad only after weighing the evidence. They prefer to refrain from contributing their thoughts to a discussion until they have all the facts. People with a high propensity to bullshit possess fewer of these evidence-based goals (Petrocelli, 2019).

Finally, despite earlier, inconclusive reports linking bullshit production to teenage males (see Jerrim et al., 2019), there appears to be only a weak link between bullshit production and sex or gender; Hart and Graether (2018) reported weak, but statistically significant, correlations between bullshit receptivity and gender (i.e., .08*, .16*), suggesting that females are more receptive to bullshit than men (also see Aspernäs et al., 2023). However, any associations between gender and bullshit receptivity would seem likely to be moderated by content/domain (e.g., sports, fashion).

Conditions of Bullibility

From the earliest efforts, much of the empirical attention to bullshit has been given to better understanding

when – and under what conditions – bullshit is likely to benefit the individual bullshitter. In other words, when are people most likely to be duped by bullshit?

Although some people repeatedly fall for deceptive influences, mostly everyone behaves in a gullible fashion on occasion. More generally, research suggests that many people suffer from bullshit blindness or bullibility – accepting bullshit as fact by failing to infer from available social cues that the bullshitter has a disregard for the truth or has failed to take reasonable action to find truth (Petrocelli, 2021a). A gullible individual may believe something despite signs of dishonesty (Teunisse et al., 2020), but the bullible individual is a relatively lazy thinker who does not even care about signs of bullshit. Being bullible means that one is receptive to bullshit (i.e., bullshit receptivity) and fails to discern bullshit from nonbullshit (i.e., bullshit sensitivity) even when there are social cues present that would otherwise signal that something is bullshit.

Being the most frequently, empirically studied form of bullshit, pseudo-profound bullshit refers to statements that are grammatically and syntactically accurate but lack any real meaning. These statements may create an illusion of conveying profound ideas solely because of their structural correctness (e.g., "Hidden meaning transforms unparalleled abstract beauty.;" Pennycook et al., 2015). Pseudo-profound bullshit is common to ambiguous, corporate/business-speech (e.g., bandwidth, leverage, win-win; Duncan, 2022; Fugere et al., 2005) and claims that fail the simplest of plausibility tests (e.g., "The price of that stock decreased by 800%."). As such, empirical research on pseudo-profound bullshit receptivity and detection (or lack thereof) suggests that bullibility emerges in the presence or absence of a number of personal, cognitive, and contextual factors.

Personality Traits and Individual Differences

As is well established, almost everyone appears susceptible to Barnum effects (see Forer, 1949; Petty & Brock, 1979). However, to say that someone is an exceptionally bullible person would mean that, relative to others, they uncritically accept information, display a great readiness to believe things, demonstrate an insensitivity to cues of untrustworthiness or a lack of concern for the truth, and show a willingness to accept false premises even when the cues to untrustworthiness/lack of concern for truth are blatantly obvious. As such, there are a number of personality traits and individual differences that are associated with bullibility.

Demographics
Bullibility appears to be associated with a number of demographic variables. People displaying greater receptivity

to pseudo-profound bullshit (and less able to discern bullshit from meaningful and actually profound information) possess significantly stronger religious beliefs (Čavojová et al., 2019; Erlandsson et al., 2018; Hart & Graether, 2018; Nilsson et al., 2019; Pennycook et al., 2015). However, as people aged (Čavojová et al., 2019; Erlandsson et al., 2018; Nilsson et al., 2019) and become more educated (Baptista et al., 2022; Erlandsson et al., 2018; Nilsson et al., 2019), they showed significantly less receptivity (and greater sensitivity) to pseudo-profound bullshit. Furthermore, there appears to be a relatively weak association between bullshit receptivity and gender, suggesting that females are more receptive to bullshit than males (Aspernäs et al., 2023; Hart & Graether, 2018).

Agreeableness
A person high in agreeableness is often described by others as warm, friendly, tactful, helpful, selfless, sympathetic, kind, considerate, and trusting. They hold optimistic views of human nature and get along well with others. Highly agreeable people typically conform to social norms, try not to upset others, and adhere to societal expectations. Agreeable people also view others through rose-colored glasses, trying to find the positive side in everyone (Costa & McCrae, 1991; Lee & Ashton, 2004). By definition, agreeable people often have trouble saying no. A study conducted by Bègue et al. (2015) examined what happens when highly agreeable people encounter deceptive information. Within the context of a fake television game show, Bègue et al. replicated Stanley Milgram's famous studies of obedience to authority using perhaps the greatest line of deliberate deception in the history of social psychological experiments: "It is absolutely essential that you continue." (Milgram, 1963, 1974). The statement was deceptive not only because it was not true, but because participants could stop the study at any point they wished without suffering any penalty for withdrawing. As expected, those highest in agreeableness were the most likely to continue delivering allegedly painful electric shocks at the prods of the game-show host. Being pleasant, warm, and nice, as highly agreeable people are, also conflicts with one's ability to critically analyze and discard bullshit (see Čavojová et al., 2022).

Trusting
Blötner and Bergold (2023) found the distrustful facet of Machiavellianism (i.e., Machiavellian avoidance; cynical view of humanity and a preoccupation with preventing loss) to be positively related to bullshit sensitivity. Although it is reasonable to expect one's tendency to trust others to be linked to bullibility and expect low-trusting people to be better at detecting bullshit than highly trusting people, some of the existing literature suggests the

opposite (N. L. Carter & Mark Weber, 2010). In fact, Yamagishi and Yamagishi (1994) and Yamagishi et al. (1999) provided intriguing evidence suggesting that highly trusting people are less easily duped. Their study participants completed multiple questionnaires to identify how trusting they were of others in general. Participants with high and low trust levels were shown short stories that either positively or negatively described a character in a specific scenario or provided no extra details about the character. When no additional information was given, highly trusting individuals were more inclined than those with low trust to believe the character would behave trustworthily. However, when presented with negative information about the character, high-trust participants adjusted their assessment of the character's trustworthiness more rapidly than low-trust participants. These results suggest that highly trusting people may be more attuned to explicit negative signals than those with low trust—which is a key aspect of detecting deception. Being able to recognize and respond to signs of dishonesty when they are present is central to this skill. A bullible person is not simply overly trusting or believing in bullshit. Instead, bullibility stems from an inability to notice or properly respond to social cues of bullshitting.

Bullshitting Propensity

Contrary to the common expression, it may indeed be possible to *bullshit a bullshitter*. Littrell et al. (2021b) showed that pseudo-profound bullshit receptivity is positively associated with self-reported persuasive and evasive bullshitting. Individuals who demonstrate a capacity to craft persuasive and seemingly accurate bullshit are also inclined to be more receptive to pseudo-profound bullshit. Moreover, they may face challenges in discerning the distinction between meaningless pseudo-profound bullshit and genuinely meaningful motivational quotes (Turpin et al., 2021). In fact, this hypothesis was explicitly examined through experiments conducted by Littrell et al. (2021b). Their findings showed that individuals who frequently engage in persuasive bullshitting were also more susceptible to believing bullshit. Furthermore, those more prone to accepting bullshit demonstrated lower meta-cognitive awareness, meaning they struggled to differentiate between genuinely profound statements and pseudo-profound bullshit statements designed to merely sound thoughtful.

Political Ideology

What roles do political attitudes play in bullshit detection? The research addressing this question has focused almost exclusively on political attitudes in the context of general bullshit detection, yielding mixed results. Some of the available data suggest that bullshit receptivity and

detection are not uniquely connected to political extremism on either end of the political spectrum (see Skitka & Washburn, 2016; Washburn & Skitka, 2017). In two studies, designed to test competing accounts of susceptibility to partisan fake news (a special case of bullshit), Pennycook and Rand (2019) examined if people use their reasoning abilities to convince themselves that statements that align with their ideologies are true, or rather, use them to effectively discern between fake and real news reports. Their data suggest that susceptibility to fake news is influenced more by lack of analytical thinking than it is by partisan biases, motivations, and political ideology. Furthermore, Sterling et al. (2016) showed that bullshit receptivity (and an intuitive, nonreflective cognitive style in general) was associated with trust in a Republican-led government and preference for a free-market economic system. A quadratic association between bullshit receptivity and preference for free markets emerged, suggesting that political moderates are more receptive to bullshit than extremists in either direction.

Yet, Simonsohn (2018) demonstrated that a test of a quadratic relationship is an invalid test of the presence of u- and inverted u-shaped relationships. In fact, using a more appropriate statistical method, Simonsohn found no evidence for the inverted u-shaped function reported by Sterling et al. (2016) and instead concluded that bullshit receptivity is positively associated with free-market support. Corresponding with findings of negative relationships between conservatism and cognitive ability (Onraet et al., 2015) and need for cognition (Sargent, 2004), Kemmelmeier (2010) and Deppe et al. (2015) reported conservative attitudes to be associated with an intuitive thinking style. Likewise, Jost et al. (2003) and Hinze et al. (1997) reported conservative attitudes to be associated with an avoidance of cognitive complexity (i.e., the tendency to construct a variety of perspectives for viewing an issue; also see Ditto et al., 2019; Fessler et al., 2017; Hibbing et al., 2014; Kahan, 2013; Nilsson et al., 2019; Pfattheicher & Schindler, 2016).

More recent studies conducted by Petrocelli (2022) and Baptista et al. (2022) demonstrated that experiments using both between-subjects and within-subjects methods led to statistically significant receiver political orientation × speaker political orientation interactions for political bullshit receptivity. Any statistically significant main effects of political orientation on bullshit receptivity revealed a positive association between conservatism and bullshit receptivity. These investigations are consistent with the mixed results of earlier research examining the relationship between political orientation and bullshit detection and/or variables found to be related to bullshit detection relevant variables (e.g., cognitive reflection; also see Gligorić et al., 2022; van Prooijen et al., 2022). They

feasible and came from a professional – never mind the statements could apply to almost anyone (e.g., "You have a great deal of unused capacity which you have not turned to your advantage."). As demonstrated by Gligorić and Vilotijević's (2020) investigation, such instances of bullibility may be enhanced by the *guru effect* in which even the most obscure expressions in speech or writing can be viewed as profound as long as they are attributed to an intellectual guru and, perhaps, difficult to grasp (e.g., "We are nonlocal beings that localize as a dot then inflate to become nonlocal again. The universe is mirrored in us. – Dalai Lama;" Sperber, 2010). Perceived source credibility enhances pseudo-profound bullshit receptivity (Hoogeveen et al., 2022; Ilić & Damnjanović, 2021; Sperber, 2010). Likewise, people displayed significantly greater bullible judgments when they encountered meaningless statements from those who appeared to align with their own political orientation than when they were misaligned (Baptista et al., 2022; Petrocelli, 2022; also see Shedletsky et al., 2021).

Consequences of Bullibility

Although people typically report great competence in their abilities to detect bullshit and believe that bullshit is generally harmless, much of the existing, empirical literature suggests otherwise. Bullshit plagues the ways in which people work together, share information, and make decisions because it negatively effects learning, memory, attitudes, and beliefs about what we believe to be true and what we believe to be true is foundational to decision-making.

People are often more susceptible to bullshit and its unwanted effects than they realize. In fact, several studies confirm the more confident people are about detecting bullshit and other forms of deception, the more susceptible they are to them (Bond & DePaulo, 2006; DePaulo et al., 1997; Fisher & Keil, 2016; Kominsky & Keil, 2014; Kruger & Dunning, 1999; Lawson, 2006; Levine & McCornack, 1992; Rozenblit & Keil, 2002; Wilson & Keil, 1998). The most recent and extensive inquiry, led by Littrell and Fugelsang (2024), focused on exploring the connections among individuals' capability to identify pseudo-profound bullshit, their confidence in their ability to detect such bullshit, and their metacognitive experiences when evaluating potentially deceptive information. Their findings revealed that individuals with lower performance in detecting bullshit significantly overestimated their detection abilities, while those with higher performance underestimated their abilities. Additionally, participants reported utilizing both intuitive and reflective thinking processes when assessing misleading information. Littrell and Fugelsang's (2024) results collectively indicate that individuals who are highly receptive to bullshit, as well as those who are highly resistant to it, are generally unaware of the extent to which they possess the ability to identify bullshit.

Persuasion and Social Influence

It is unclear from the existing literature if the pseudo-profound political bullshit receptivity demonstrated by Baptista et al., (2022) and Petrocelli (2022) extends to unwarranted attitude polarization for subsequent political issues – although it appears promising (see Gligorić et al. 2022). However, if bullshit is influential to the formation and maintenance of attitudes, then bullshit may have an indirect effect on the stability and persistence of those attitudes as well as a stronger link with behavior (Gross et al., 1995; Petrocelli et al. 2007). In one experiment, Petrocelli (2021b) exposed participants to a traditional persuasion paradigm, receiving either strong or weak arguments in either an evidence-based or bullshit frame. A similar persuasion experiment incorporated a manipulation of a peripheral route cue (i.e., source attractiveness). Findings from both studies demonstrated that bullshitting can be an effective means of influence when arguments are weak, yet undermine persuasive attempts when arguments are strong. Petrocelli's (2021b) results also suggest that bullshit frames cue peripheral route processing (i.e., whereby persuasion can occur when peripheral cues like the number of arguments or attributes of the communicator appear compelling) relative to evidence-based frames that appear to cue central route processing (i.e., whereby persuasion can occur only when the arguments themselves are compelling; Petty & Cacioppo, 1984, 1986).

Bullshit may influence attitudes through additional routes. Petrocelli, Silverman, and Shang (2023) demonstrated that relative to identified liars, identified bullshitters are perceived less negatively and can have more subsequent influence on the formation of attitudes for novel attitude objects. Also, Petrocelli, Seta, and Seta (2023) compared lie and bullshit versions of the sleeper effect – a persuasive influence that increases, rather than decays over time. Compared to a liar source condition, the same message from a bullshitter resulted in more extreme immediate and delayed attitudes that were in line with an otherwise discounted persuasive message (i.e., an advertisement). Interestingly, attitudes returned to control condition levels when a bullshitter was the source of the message, suggesting that knowing an initially discounted message may be potentially accurate/inaccurate (as is true with bullshit, but not lies) does not result in the long-term discounting of that message.

Bad Judgment and Decision-Making

Bullibility can have unwanted effects on judgments and decisions (Pennycook et al., 2015). Abstract art pieces paired with pseudo-profound bullshit titles (e.g., *The Deaf Echo*) were judged as having significantly greater quality than the very same pieces paired with mundane titles (e.g., *Canvas 8*), or no titles at all, regardless if the art pieces are computer-generated or artist-created (Turpin et al., 2019). Much worse than judgments of abstract art, George and Mielicki. (2023) found those high in bullibility were less accurate in their predictions of performance on creative problem-solving tasks and less able to discriminate between solvable and unsolvable problems when making metacognitive judgments. Their findings suggest bullibility (e.g., the tendency to perceive semantic connections where none exist) can lead to inaccurate predictions of performance on tasks that require noticing and utilizing distant semantic connections (also see Salvi et al., 2023). Relatedly, Wood et al. (2023) found that the more pseudo-profound bullshit statements their participants endorsed the more likely they were to respond positively to the risks and benefits of a mass-market scam offer, and their intentions to comply with the solicitation, even after controlling statistically for their age and education levels.

Unfortunately, bullibility is also associated with overclaiming (i.e., the tendency for some individuals to self-enhance when asked about their familiarity with general knowledge questions; Paulhus et al., 2003; Pennycook & Rand, 2019; Salvi et al., 2021), both general and political confirmation bias (Nilsson et al., 2019; Stall & Petrocelli, 2023), resistance to changing beliefs in the face of new evidence (Nilsson et al., 2019), susceptibility to framing effects (i.e., when different presentations of the same problem lead to predictably different preferences; Rachev et al., 2022), and illusory pattern perception (i.e., going beyond the available data such that one uncritically perceives patterns where none exist; Walker et al., 2019). As such, bullibility is associated with bad judgment and decision-making (e.g., susceptibility to fake news; Pennycook & Rand, 2019, 2020; Salvi et al., 2021).

Of course, the mental processing of bullshit does not occur in a vacuum. 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 (Baptista et al., 2022; Petrocelli, 2022). Whether people cognitively elaborate in response to political statements (or not), when people see something that appears consistent with their political views (even in the most superficial ways), they most often endorse it. Yet, the very same content is viewed negatively and readily dismissed as spin or labeled as misleading, when communication cues signal that the content may be counterattitudinal (Borel, 2018; Fritz et al., 2004; Greenberg, 2016). For instance, when liberals [conservatives] listen to liberals [conservatives], they hear cogent content, but when liberals [conservatives] listen to conservatives [liberals], they hear specious content. Indeed, politically biased processing has a very strong hold on political opinion formation. Politically biased processing has been shown to influence rational choice and heuristic information processing (Jost et al., 2013), group polarization and source-credibility effects (Bolsen et al., 2015; Taber et al., 2009), biased information search (Arceneaux & Johnson, 2013; Lodge & Taber, 2013), and the processing of factual misinformation (Flynn et al., 2017).

Beliefs About What Is True

What people believe to be true is foundational to their judgment and decisions. Unfortunately, bullshit does appear to affect what people believe to be true. An illusory truth effect (Fazio et al., 2019; Hasher et al., 1977) can emerge when people are exposed to information (e.g., *Sydney is the capital city of Australia*.) for the purpose of expressing their perceived interest and later encounter the information again for the purpose of stating their perceived truth of that information. In such cases, people reliably confuse their subjective sense of familiarity of statements with truth (i.e., Canberra, not Sydney, is capital city of Australia). This repetition-induced memory appears to emerge even when people possess the knowledge to know better (see Fazio et al., 2015). Relative to the influence of information provided by liars and honest control conditions, the very same information delivered by bullshitters produced a significantly greater illusory truth effect (see Petrocelli, Rice, & Shang, 2020). Presumably, observers are well aware of the differences between lying and bullshitting (Petrocelli, Silverman, & Shang, 2023) and recognize that bullshit is not necessarily incorrect – and as such – they are more willing to view false bullshit as true than they are lies.

Pronounced bullshit receptivity, coupled with a poor ability to discern fact from bullshit, is also positively associated with the strength of conspiracy theory beliefs (Čavojová et al., 2019, 2022; Fuhrer & Cova, 2020; Hart & Graether, 2018; Pennycook et al., 2015; Pisl et al., 2021; Torres et al., 2023; van Prooijen et al., 2022), dangerous-world beliefs (e.g., "Any day now chaos and anarchy could erupt around us, as all the signs are pointing to it") and hyperactive agency detection (i.e., tendency to attribute intent to otherwise ambiguous events; Hart & Graether, 2018), as well as confirmation biases and a failure to

consider alternative possibilities (Stall & Petrocelli, 2023). It comes as little surprise that bullibility is positively associated with science denialism (Torres et al., 2023), endorsement of complementary and alternative medicines (e.g., homeopathy, energy healing, essential oils; Ackerman & Chopik, 2020; Blondé et al., 2020; Čavojová et al., 2019; Pennycook et al., 2015), paranormal beliefs (Bainbridge et al., 2019; Čavojová et al., 2019, 2022; Pennycook et al., 2015; Torres et al., 2023), pseudoscientific beliefs (Torres et al., 2023), and supernatural beliefs

Conditions of Bullshitting

Situational Factors:
• Obligations to provide an opinion
• Ease of passing bullshit
• Depleted self-regulatory resources
• Perceived low knowledge of audience

Motivations:
• Attitude change with weak arguments or peripheral route processing
• Persuasive bullshitting (impress, gain acceptance)
• Evasive bullshitting (avoid consequences)
• Status-promotion by acting responsible for desirable outcomes
• Status-prevention by dissociating oneself from undesirable outcomes
• Communion-promotion to connect with desirable others
• Communion-prevention with undesirable others

Individual Differences:
• Personality traits (e.g., high Machiavellianism)
• Low need for evidence
• Overconfidence in knowledge
• High verbal reasoning skills
• Collectivistic tendencies

Conditions of Bullibility

Cognitive Factors:
• Low cognitive reflection
• Low analytic thinking
• High faith in intuition
• Low numeracy and cognitive ability
• Ontological confusion
• Illusory pattern perception

Personality and Individual Differences:
• High agreeableness
• Lower education levels
• Stronger religious beliefs
• Younger age
• Slightly higher in females (weak association)

Contextual Factors:
• Depleted self-regulatory resources
• Source credibility effects
• Political ideology alignment with source

Consequences of Bullibility

Cognitive and Decision-Making:
• Increased susceptibility to persuasion and social influence
• Poor judgment and decision-making tasks
• Overclaiming of knowledge
• Confirmation bias and resistance to changing beliefs
• Susceptibility to framing effects
• Illusory truth effect

Beliefs and Worldviews:
• Belief in conspiracy theories
• Endorsement of pseudoscience and alternative medicines
• Paranormal and supernatural beliefs
• Science denialism
• Dangerous-world beliefs
• Hyperactive agency detection

Behavioral Outcomes:
• Increased likelihood of sharing misinformation
• Vulnerability to scams and deceptive practices
• Poorer performance on creative problem-solving
• Less accurate metacognitive judgments
• Overestimation of one's ability to detect bullshit

Figure 2. Empirically supported conditions and consequences of bullshitting and bullibility.

(van Prooijen et al., 2022). A study conducted by Iacobucci et al. (2021) showed that a simple priming of deepfake information can significantly increases users' ability to discern deepfake media from real media. However, not so among participants high in bullibility – only Iacobucci's participants low in bullibility responded positively to the deepfake nudge.

Perhaps the greatest consequences of believing bullshit are the increased likelihoods of sharing and spreading bullshit. Unfortunately, the greater one's bullibility, and the worse their ability to discern fact from fiction, the greater their willingness and intentions to share bullshit, fake news, and other forms of misinformation (Čavojová et al., 2019; Iacobucci et al. 2021; Lai et al., 2022; Pennycook & Rand, 2020; see Figure 2).

Conclusion

The past 5 years of research has produced significant knowledge about the causes of bullshitting and the factors associated with bullibility (i.e., high bullshit receptivity and poor bullshit detection). A deeper understanding of the conditions under which bullshitting is likely to emerge should position observers with more successful vantage points to detect this deceptive behavior in others. However, we currently have very little knowledge in the way of empirically-validated interventions to improve bullshit detection. Much research is needed in the way of better understanding the tendency to *call bullshit* and the most effective ways of doing it without creating undesirable communicative consequences (e.g., shutting down communications all together). Future research would do well to avoid equating sheer disagreement with bullshit and determine both observers' detection of bullshit and their likelihood of confronting bullshitters with their offense.

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