

**EVALUATING THE SOCIAL PERCEPTIONS OF BULLSHIT VERSUS LYING:
THE INSIDIOUS BULLSHIT HYPOTHESIS**

MA DISSERTATION

Submitted by

Siphokazi Mtengwana

Student number: 66181518

Supervisor: Prof Kitty B Dumont

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DECLARATION

I, Siphokazi Mtengwana (student number 66181518), declare that **“Evaluating the social perceptions of bullshit versus lying: The Insidious Bullshit Hypothesis”** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references. I further declare that I have not previously submitted this work, part of it, for examination at UNISA for another qualification or at any other higher institution.

Name: Siphokazi Mtengwana

Date: June 2025

ABSTRACT

The present research reports three experimental studies that tested the insidious bullshit hypothesis and the effects of the bullshitters' social status and group membership on bullshit receptivity. More specifically, applying a single factor between-subjects design, Study 1 ($N = 216$) and Study 2 ($N = 190$) tested the hypothesis that the act of bullshit is evaluated less negatively than the act of lying (Hypothesis 1), while Study 3 ($N = 180$), which applied a 2 (social status: low versus high) x 2 (group membership: ingroup versus outgroup) between-subjects factorial design, explored how the bullshitter's social status and group membership affects participants' receptivity to pseudo-profound bullshit information (Hypotheses 2-4). The results of Study 1 supported the insidious bullshit hypothesis that bullshit is evaluated less negatively than the act of lying. These results could not be replicated in Study 2. The direct effects of the bullshitter's social status and group membership (and their interaction) on participants' receptivity to pseudo-profound bullshit information were also not supported by the results of Study 3. Possible explanations for and implications of the results are outlined and discussed.

Keywords: bullshitting, bullshit-receptivity, pseudo-profound statements, lying, social status, group membership

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INTRODUCTION

One could argue that we live in the "Twilight of Truth," a time when deception, misinformation, and false narratives dominate both private conversations and public discourse. Fake news, propaganda, and the widespread dissemination of disinformation increasingly blur the line between truth and fiction. However, it is not only the endemic and systematic character of bullshit and lies that is concerning but, most importantly, its potential to be both harmless and harmful to people. For instance, imagine someone claiming that carrots improve your night vision. This common myth, which originated during World War II (Palfrey, 2024), presents a form of misinformation that does not pose any significant harm or risk to people. Instead, it promotes an increase in vegetable consumption. In contrast, other deception or indifference toward the truth might be harmful as they can result in undesirable behaviours. For instance, one of the former South African Health Ministers, Ms Mantombazana E Tshabalala-Msimang, claimed that the South African AIDS epidemic could be treated with alcoholic beverages, fruits, and vegetables, which led to the accusation of being responsible for the premature deaths of over 300.000 South Africans (Davis, 2014).

The line between bullshitting and lying is thin but crucial. Being indifferent toward the truth differs from communicating information one knows to be false to deceive the other (Frankfurt, 2005; Petrocelli et al., 2023). Disregarding the truth altogether differs from hiding or distorting it because the former insidiously erodes the concept of truth. Thus, Frankfurt (2005) argued that bullshit can be even more dangerous than lying. However, research has shown that individuals are more forgiving towards a bullshitter than a liar. This finding has been demonstrated in a few studies and within the WEIRD context (i.e., Western, educated, industrialised, rich, and democratic) (Petrocelli et al., 2023). The present research will build on this research and first test the "insidious bullshit hypothesis" within the South African context. Because of the insidious nature of bullshit, it is paramount to understand why people are

receptive to and share information that disregards the truth. Thus, the present research will extend this perspective by exploring whether and how people's bullshit receptivity depends on social status and group membership of the bullshitter.

Indifference toward the truth

Although bullshitting is not a new social phenomenon (Pennycook & Rand, 2019; Petrocelli, 2018; Turpin et al., 2019), its creeping character, however, reached a new quality in the "post-truth" world. Incorrect statements, misinformation, and fake news are common in many domains of social life, like organisations, universities and researchers, financial institutions, self-help industry, politics, and the fields of sports and coaching (e.g., Abel, 2023; Delucchi et al., 2021; Ferreira et al., 2022; Gligorić et al., 2020; Graeber, 2013; Kirchherr, 2023; McCarthy et al., 2020). For instance, some of what is communicated in organisations, such as "think out of the box" or "blue-sky thinking", qualifies as bullshit jargon because they are ambiguous with not much substance and is not aligned with organisational practices by avoiding reference to the truth (Ferreira et al., 2020; McCarthy et al., 2020). Organisational bullshitting also takes place when a manager who might not know whether there will be job losses assures the co-workers that "they do not need to worry". By doing so, the manager is not hiding or concealing the truth as they neither know nor care if their claim is true (McCarthy et al., 2020). Not only organisational communication but also employment structures are increasingly indifferent toward the truth, as Graeber (2013, p. 624) posits when he referred to bullshit jobs as "a form of paid employment that is so unnecessary, completely pointless, or harmful that even the employee finds it difficult to explain its existence". These bullshit jobs are increasingly visible at universities in the form of administrative and non-academic staff positions (Delucchi et al., 2021). These positions are often considered as bullshit jobs because these employees attend meetings, devote time to preparing professional conferences and staff

retreats, as well as strategic planning, which are not only time-consuming activities but lack significant contributions to the academic project (Delucchi et al., 2021). Lack of concern for truth can also be found among academics and researchers, which Kirchherr (2023) coined as “scholarly bullshit”. Scholarly bullshit refers to “useless and pointless scholarly contributions” that even scholars producing it struggle to explain as it does not contribute to the advancement of scientific knowledge (Kirchherr, 2023, pp. 167-172). For instance, a recent analysis categorised about 50% of the publications in interdisciplinary, sustainability, and transition journals as scholarly bullshit (Kirchherr, 2023).

Bullshit is also prominent in the domain of finance, which already applies forms of communication that a layperson might regard as challenging to comprehend (Kienzler et al., 2022). Financial pseudo-profound statements refer to communications that may come across as impressive, factual, and meaningful but are essentially empty and worthless, such as statements like "A cheap loan is beyond all new destiny" or "Freedom and space transform the abstract meaning of money" (Kienzler et al., 2022, p. 3). Kienzler and colleagues (2022), who developed the Financial Bullshit Scale (FBS), showed, like previous research, that the individuals' capability to differentiate between profound and pseudo-profound statements increases with age (see also Erlandsson et al., 2018). More importantly, being vulnerable to financial bullshit is linked to understanding financial buzzwords but not general financial behaviour (Kienzler et al., 2022). In contrast, people who are concerned about their finances can differentiate between factual and false financial information (Kienzler et al., 2022). The complex terminology used in financial institutions might enable bullshit to flourish and mislead consumers. Because financial communication has a significant effect on consumers' financial decisions, it is crucial for consumers to spot financial bullshit for their financial well-being (Kienzler et al., 2022).

Another domain where bullshit is common is the “self-help industry” (Abel, 2023). The increase in desire and need for happiness creates a breeding ground for what has been coined as “inspirational bullshit” (Abel, 2023, p. 9). Self-help messages, which often lack substance and fail to provide actionable steps towards personal growth, rely on empty cliches and vague statements such as “*positive mind, positive vibes, and positive life*” (Abel, 2023, p. 13). Notwithstanding its questionable foundation, inspirational bullshit is popular and profitable among, for instance, inspirational speakers, who often use catchy phrases to appeal to a wider audience, creating an industry that thrives on the human need for inspiration (Abel, 2023). The individuals who fall for inspirational bullshit were found to be open-minded and willing to embrace ideas that were not grounded in evidence or logic (Abel, 2023), suggesting that their preference for inspirational bullshit may stem from a desire for emotional stimulation rather than a need for factual accuracy.

Bullshit is also evident in the domain of politics. Political bullshit involves communication that is unclear and meaningless to influence or mislead voters (Gligorić et al., 2020; Pennycook et al., 2015). In some instances, politicians' intentions come across as knowledgeable and polite, and often they reach this goal by "saying something without saying anything" (Pennycook et al., 2015, p. 126). Additionally, politicians use this communication to redefine public perceptions by shaming their political rivals. For instance, during the presidential campaign of Barack Obama, Donald Trump alleged that Barack Obama was not born in the United States, which led people to doubt Obama's legitimacy in becoming the president of this country (Gligorić et al., 2020). Interestingly, Sterling et al. (2016, p. 385) argue that bullshit in politics does not only depend on intellectual buzzwords but more often on the use of relatively simple statements such as "Together we can do more" or "I believe in South Africa" to reach a larger audience. Political bullshit can be motivated to charm and appeal to voters for support (i.e., persuasive bullshit), and it can refer to meaningless statements

which allow the politician to escape from giving direct answers (i.e., evasive bullshit; see Gligorić et al., 2020; Littrell et al., 2021). Given Frankfurt's (2005) argument, that those who bullshit are dangerous because bullshitters are not concerned about the truth, makes political bullshit even more devastating because it could influence voting behaviour, which shapes not only the present but also the future of societies.

The field of sports and coaching is also not immune to bullshit. Olympic competitors are increasingly incorporating pseudoscientific practices into their training regimes, like making use of acupuncture and IV hydration, which not only have no proven therapeutic advantages but can also be harmful (Lunau, 2012, as cited in Stoszkowski et al., 2022). Additionally, some coaches use pseudo-scientific theories and neuromyths, undermining the credibility of the entire sports and coaching profession (Stoszkowski et al., 2022). It is argued by Stoszkowski et al. (2022, p. 3) that the growing industry of "conceptual entrepreneurs" may pressure practitioners to bullshit in order to validate their membership in the sports and coaching community.

Irrespective of the domains in which bullshit occurs, this social phenomenon is increasingly occurring and can be both harmless and harmful to people. Thus, the concept of bullshit attracted recent attention not only because of its creeping character but also because of its insidious nature. The act of bullshit was first theoretically conceptualised by Frankfurt (2005, p. 34), who defines it as "communication that is intended to appear impressive and profound without regard for the truth". According to Frankfurt (2005, pp. 33-34), "a bullshitter is someone who conveys information that is disconnected from the truth in a calculated manner to create an impression of themselves and to mislead and manipulate others". Therefore, the bullshitter is not essentially being dishonest; however, they are unquestionably faking things (Frankfurt, 2005, p. 46). Frankfurt (2005) proposes that bullshit is promoted by the trend that people often feel the responsibility or obligation to provide informed opinions about almost

everything. The latter is impossible, as nobody can have an informed opinion about everything (Frankfurt, 2005; Petrocelli, 2018). Moreover, individuals are more likely to bullshit when they know they can get away with it and less likely to bullshit if they know they will be held accountable (Frankfurt, 2005; Petrocelli, 2018).

Bullshitting versus Lying: The insidious bullshit hypothesis

Although bullshitting and lying are used interchangeably in everyday communication, they present theoretically and practically different social phenomena. A bullshitter is indifferent to the truth (Frankfurt, 1986, 2005; Petrocelli, 2018), whereas a liar is aware of and cares about the truth but intentionally tries to mislead others into believing something false (Frankfurt, 2005). To commit a lie, one must be conscious of the truth and strive to evade it. Therefore, truth plays a vital role for the liar (Frankfurt, 2005). In psychology and philosophy, scholars often adhere to a conventional definition of lying, emphasising the speaker's intent. Most definitions characterise lying as the act of stating something that one believes to be false, with the deliberate intention of misleading the listener (Stokke, 2013). However, lying does not always require the intention to deceive (Carson, 2006; Stokke, 2013); in other words, even if your goal is not to mislead your listener, you could still be lying. This perspective expands the definition beyond the traditional view that lying requires a deliberate intention to deceive. It is argued that one can still be lying even if one's intention is not specifically to mislead someone. Carson (2006) and Stokke (2013) suggest that this broader view encompasses two main ideas: lies of omission and nonverbal deception. Lies of omission occur when someone misleads by withholding specific information. For example, if a person spent the weekend at a party but, when asked about their plans, only mentions having been out with friends without revealing the party, they are engaging in a lie of omission. By omitting this detail, they mislead the listener, which qualifies as lying. Nonverbal deception, on the other hand, occurs when the concept of lying extends beyond verbal communication (Stokke, 2013). Nonverbal actions,

such as gestures or facial expressions, can be misleading and may qualify as lies if done with the intent to deceive. For example, deliberately putting on a false smile to conceal their true feelings can be considered a form of deception.

Indifference towards the truth or conceiving it has detrimental consequences when people regard the information as the truth, based on which they make decisions. The latter makes both bullshitting and lying dangerous because certain misinformation is potentially harmful (Pennycook & Rand, 2019; Frankfurt, 2005). For example, to avoid the COVID-19 infection, some people scrubbed food with bleach, used household cleaners to clean their skin, or even ingested disinfectants (Nelson et al., 2020). Thus, although it is known that disinfectants are harmful to health, shared misinformation created unease and fear to the extent that some people ended up harming themselves by ingesting bleach. Frankfurt (2006) also highlights the importance of acknowledging what is true and what is false because having truthful information helps to understand reality. For instance, having correct information is significant for one to be able to make an informed decision when deciding which medication to take when one is ill or knowing the risks when investing in a particular company.

Although both bullshitting and lying can have harmful consequences, it seems that people are more forgiving toward the bullshitter than the liar. This was already proposed by Frankfurt (2005), who suggested that people judge bullshitting less negatively compared to lying, even though bullshitting can be more insidious. This phenomenon is known as the *insidious bullshit hypothesis* (Frankfurt, 1986, as cited in Petrocelli et al., 2023, p. 2). Both Frankfurt (2005) and Petrocelli et al. (2023) reason that, because bullshit information may be accurate, it is this uncertainty that may cause a bullshitter to be more likely to be forgiven than a liar. The first empirical evidence was provided by Petrocelli et al. (2023), who conducted experiments to test the insidious bullshit hypothesis. In the first experiment, participants were exposed to the very same information, either presented by a bullshitter or a liar (Petrocelli et

al., 2023; Study 1). The results showed that participants evaluated the information presented by a liar as more negative than information presented by a bullshitter. The results further suggest that the different evaluations are due to different perspectives about the bullshitter and the liar. The liar is perceived as more dishonest, whereas the bullshitter is perceived as more ignorant and as expressing their opinion. In the second experiment, the researchers presented participants with pseudo-profound statements either authored by a liar or a bullshitter and assessed participants' bullshit receptivity, sensitivity, truth sensitivity, and attitudinal influence (Petrocelli et al., 2023; Study 2). The results showed that participants exposed to claims made by an author introduced as a bullshitter were more receptive and less sensitive to common bullshit than participants exposed to the same claims made by an author introduced as a liar (Petrocelli et al., 2023, pp. 3-4). Overall, the results of these two studies support the insidious bullshit hypothesis in that bullshitters are likely to be more forgiven than liars, and bullshitters are influential in increasing the receptivity of common bullshit. Based on these findings, the present research aimed to replicate Study 1 of Petrocelli et al. (2023) within a different societal context. Consequently, we hypothesise that:

Hypothesis 1: The act of bullshitting is evaluated less negatively than the act of lying.

Predictors of bullshitting

Given that acts of bullshitting are increasingly becoming a reality in people's lives, it is not surprising that researchers have been increasingly interested in studying this social phenomenon. The *who* and *why* questions of bullshitting have been the main topics of current research, which have been answered differently for the producers of bullshitting and the recipients of bullshitting. The *who* question concerning the *producer of bullshit* focuses on the intra- and interindividual differences, whereas the *why* question focuses on the *motivational drivers to bullshit* (Littrell et al., 2021).

Producers of bullshitting tend to be overconfident (Jerrim et al., 2019) and prioritise personal gain over ethical considerations (see Blötner & Bergold, 2023; Wilson et al., 1996). They also tend to influence, impress, or blend in with others by amplifying their knowledge, skills, and/or competencies (Littrell, 2021; Petrocelli, 2018) and/or control how others perceive them by controlling the narrative (i.e., through persuasive bullshitting; see Christensen et al., 2019; Littrell, 2021). Controlling the narrative is achieved through *persuasive* bullshitting, which refers to communication aimed at making oneself exciting or impressive. Persuasive bullshitters use boasting as a communication style to manipulate others. According to Littrell (2021) and Mears (2002), persuasive bullshitting allows the bullshitter to control how others perceive them. For example, a manager may articulate exciting and stimulating organisational goals to impress investors or colleagues without having an overview of what is happening in the organisation (Christensen et al., 2019; Littrell, 2021). Most importantly, persuasive bullshitting is found to be predictive of performance tasks involving overclaiming and overconfidence in one's knowledge and skills (Littrell et al., 2021; Pennycook & Rand, 2019). Additionally, persuasive bullshit is related to pseudo-profound bullshit, scientific bullshit receptivity, profound/motivational quotes, self-reported intellectual confidence, and accuracy of rating fake news headlines (Littrell et al., 2021).

However, bullshitters also tend to value and want to maintain relationships, and they do so through *evasive* bullshitting (Littrell, 2021). Evasive bullshitting is defined as a type of indirectness used to avoid answering questions directly because not having enough information or giving a direct answer may hurt the bullshitter or others (Littrell, 2021). By answering, for instance, direct questions with somewhat irrelevant or non-sensual responses, the bullshitter's intention might be to maintain a relationship (Littrell, 2021). For instance, politicians tend to engage in evasive bullshit when answering a direct question vaguely, as their direct answers may hurt their political standing or threaten national security, which might harm others. In other words, an evasive bullshitter avoids speaking directly to protect their image or spare others' feelings. Therefore, evasive bullshitting serves to encourage or maintain positive impressions or at least avoid unpleasant ones (Littrell, 2021). Essentially, evasive bullshitting is related to the cognitive ability to reflect (Littrell et al., 2021). That is, evasive bullshit depends on engagement in the analytic thinking process, which might explain why people engaging in evasive bullshit are less likely to fall for bullshit (Littrell et al., 2021).

Responsibility for the dissemination of bullshit is not only with producers but also with those who receive and share it. Bullshit receptivity is the tendency to judge exaggerated judgments or non-profound statements as truthful (Littrell et al., 2021; Pennycook & Rand, 2019). In other words, to perceive statements or information as truthful that is unclear or ambiguous. For instance, to determine bullshit receptivity, researchers focus on the receiver's acceptance of a particular type of bullshit, what they named "pseudo-profound bullshit" (Pennycook & Rand, 2019). Examples of pseudo-profound bullshit include statements such as "hidden meaning transforms unparallel abstract beauty" or "attention and intention are the mechanics of manifestation" (Pennycook et al., 2015, p. 26). These statements give the impression of having a profound meaning and are deliberately applied to create sophistication by obscuring or evading clarity (Pennycook et al., 2015; Pennycook & Rand, 2019).

Like research about the producers of bullshit, research on bullshit receptivity distinguishes between the *who* (i.e., intra- and interindividual differences) from the *why* question (i.e., motivational drivers). Research addressing the *who* questions found answers in intra- and interindividual differences concerning cognitive processes and personality orientations. For instance, individuals who are receptive to bullshit statements tend to rely on their intuition rather than analytical thinking and may have weaker cognitive abilities (Littrell et al., 2020; Pennycook & Rand, 2019). This tendency to believe in pseudo-profound claims is linked to a reliance on Type I thinking, more intuitive processes, and a lack of engagement in Type II thinking processes, which are more reflective and analytical (Čavojová et al., 2019; Littrell et al., 2021b; Pennycook et al., 2015). It takes critical thinking to digest abstract information, but not all of us are critical thinkers (Pennycook et al., 2015, p. 4). For instance, analytical thinking involves critically evaluating information, examining perspectives, considering logical reasoning, and engaging in discussion(s) to gain a deeper understanding before accepting information at face value (Brodgen, 2020; Čavojová et al., 2019; Littrell et al., 2022; Pennycook et al., 2015; Petrocelli et al., 2018). People who are less reflective and analytical often neglect to engage in critical thinking, which in turn is associated with an inflated sense of confidence. The latter does not align with their ability to identify misinformation (Littrell & Fugelsang, 2024). Overconfidence in one's cognitive and decision-making skills not only hinders analytical thinking but also metacognitive insight, causing individuals to overlook errors in reasoning and, thus, become vulnerable to misinformation (Littrell et al.; 2021; see also Evans et al., 2020; Pennycook et al., 2015; Pennycook & Rand, 2020). Moreover, overconfident individuals may overclaim their knowledge, which is associated with self-deceptive enhancement and narcissism (Dunning, 2011; Paulhus et al., 2003).

Besides cognitive processes, personality orientations also play a role in answering the *who* question concerning bullshit receptivity. For instance, research has shown that bullshit-receptive individuals tend to be more agreeable (Calvillo et al., 2021; Liebman et al., 2002; Petrocelli, 2021) and open-minded (Liebman et al., 2002; Pennycook & Rand, 2018). Agreeability refers to qualities such as trust, altruism, kindness, affection, and other prosocial orientations (Erlandsson et al., 2019; Calvillo et al., 2021; Petrocelli, 2021). Agreeable individuals tend to avoid conflict and lack scepticism (Liebman et al., 2002). Open-mindedness is characterised by a willingness to explore novel, unconventional concepts, perspectives, and experiences without immediately dismissing them (Bainbridge et al., 2019; Erlandsson et al., 2019). While openness to new information can be beneficial, it can also make individuals more susceptible to misinformation (Bainbridge et al., 2019; Pennycook et al., 2015). Open-minded individuals strongly desire to explore new experiences, tend to be idealistic, and are comfortable with uncertainty (Bainbridge et al., 2019). As a result of their uncritical acceptance of various claims (i.e., being gullible), these individuals become overly trusting, making them likely to fall for misinformation (Pennycook et al., 2015).

Why do individuals tend to accept pseudo-profound statements? According to Pennycook et al. (2015), there are several reasons behind the widespread acceptance of bullshit. One reason is that some individuals may have a heightened tendency to accept information as true or meaningful right from the start. Research by Gilbert (1991) suggests that people often need to believe something before they can truly comprehend it. For example, when someone encounters a statement, their initial response may be to accept it as true without first attempting to understand its meaning. Supporting this notion, Sperber (2010) found that when participants were presented with information labelled as false, they continued to believe it even when their cognitive resources were depleted, indicating a distraction. The second reason emphasises the inability to detect bullshit. Some individuals have difficulties in recognising pseudo-profound

information, leading them to perceive something as insightful when it is vague or perplexing (De Neys, 2014; Pennycook et al., 2015). This argument is again supported by Sperber (2010), who noted that people frequently regard something as profound or significant simply because it eludes their understanding. For instance, one might admire a complex painting and find it impressive, even without fully grasping its meaning.

Another reason why individuals are receptive to bullshit refers to biases in decision-making (Pennycook et al., 2015). Research indicated that monitoring failures represent a significant source of bias in our reasoning and decision-making process (Pennycook et al., 2015). The skill of conflict detection is crucial because it enables individuals to be sceptical or cautious about certain statements, especially those that may sound impressive yet lack substance (Littell & Fugelsang, 2024; Pennycook et al., 2015). Thus, the tendency for statements to prioritise sounding impressive over factual allows for bullshit to thrive (Pennycook et al., 2015).

We propose that situational factors play an equally important role. Researchers agree that social context influences how individuals respond to bullshit communication and whether the information is accepted without hesitation (Nilsson et al., 2019; Gligorić & Vilotijević, 2020; Ilic & Damjanović, 2021). Instead of fact-checking information, individuals rely on the trust that they have in people, and this trust is built from personal relationships (Sperber, 2010; Wakeham, 2017; Gligorić & Vilotijević, 2020) as well as social status and social identity. For example, if a friend who has displayed honesty in the past is the source of information, one is likely to believe this information without any verification. Consequently, if that friend shares misinformation intentionally or unintentionally, it is likely to be accepted by the receiver and, thus, potentially reach a wider audience (Brogden, 2020). Relevant to the present research, social status plays an equally important role. Research has shown that the social status of the source may also cause a person to accept information or statements without giving a thorough

examination (Sperber, 2010). For instance, if an authoritative figure, holding high status, instructs how to perform a task, one is more likely to follow these instructions without any verification because of the trust placed in authority. Authority is not only what people hold due to their positions but also tends to be given to people who demonstrate some "competence in that specific area" (Brogden, 2020, p. 12). Consequently, experts are trusted as they provide knowledge in areas where one lacks knowledge (Tsfati & Cappella, 2003). For instance, research on consumer behaviour showed that it is possible to influence people's perception by marketing the same products differently by quoting a well-known author, although the reference to the product was just nonsense (Ilic & Damnjanović, 2021). Gligorić and Vilotijević (2020), who named this phenomenon "labelling effect", demonstrated that *who* provides people with bullshit determines *how* people react to bullshit (Gligorić & Vilotijević, 2020; Ilic & Damnjanović, 2021). Therefore, the social status of a source is essential for bullshit sensitivity and receptivity.

People with higher social status tend to have more influence, making it easier to adopt their ideas and initiatives. Social status is informed by the degree of respect or prestige associated with an individual's standing in society or a social position that a person holds due to their group association or group membership (Bierstadt, 1950; Ginsberg, 1958; Schooler, 1994). Social status is defined through hierarchy ranking, which captures ideas like prestige, power, or the ability to motivate others to achieve their goals, as well as unequal distribution of scarce social resources and unequal access to them (Kohn et al., 1990; Schooler, 1994). Social status exists to the extent that the holder fulfils the expectations of their social status (Clark, 2007), which results in the attribution of more power, influence, and privilege. A high-status person's way of thinking, values, and opinions are seen to be more valuable. Therefore, it can be assumed that people are more prone to fall for bullshit statements that originate from

individuals with high social standing due to their power and influence. Based on this reasoning, the present research hypothesises that:

Hypothesis 2: Individuals are more receptive to pseudo-profound information when the source of this information is perceived as high status than when perceived as low status.

Like high-status individuals, individuals who are similar to us and with whom we share a common social identity influence how we perceive and access information. Alternatively, to put it differently, individuals are inclined to evaluate information as more valuable if it comes from ingroup members than from outgroup members. This bias towards the ingroup has been conceptualised by the social identity theory (Hewstone et al., 2002; Messick & Mackie, 1989; Tajfel & Turner, 1986; Turner & Reynolds, 2001). Based on the premise that categorising our social world is unavoidable because that is how we simplify our surroundings, social identity theory proposes that an individual's self-concept consists of both personal and social identities (Hewstone et al., 2001; Islam, 2014; Tajfel & Turner, 1986). Social identities are formed based on the social groups or categories that people belong to and attach emotional relevance to, such as being a student (Tajfel & Turner, 1986). Thus, as we categorise people into groups, we categorise ourselves into some of those groups and identify with these groups (Harwood, 2020). The latter is known as social identification. Social identity theory focuses on how group members guide intergroup behaviour when a positive social identity is threatened (Islam, 2014; Tajfel & Turner, 1986; Trepte & Loy, 2017). As we seek to gain or maintain a positive social identity, one way to achieve a positive social identity is to view the ingroup as positively distinct from a relevant outgroup. This is also known as intergroup bias (Harwood, 2020; Hewstone et al., 2002; Tajfel & Turner, 1986; Turner & Reynolds, 2001). Research has further shown that individuals who strongly identify with their ingroup, trust ingroup members, and

accept information, even misleading information (Hebbar & Langport, 2022). Based on these findings, we propose that:

Hypothesis 3: Individuals are more receptive to pseudo-profound information when the source of this information is perceived as an ingroup member than when perceived as an outgroup member.

Social status and social identity are interconnected concepts that significantly influence how individuals perceive and interact with information. It is crucial to understand how high-status ingroup members can shape group dynamics as well as influence perceptions within the ingroup (Hogg & Write, 2007). High-status ingroup members often serve as role models, influencing the behaviour of other ingroup members (Hogg & Write, 2007). Some characteristics – such as expertise, charisma or adherence to group norms- enhance their prototypicality (Hogg & Write, 2007; Bendersky & Hays, 2012). As a result, these individuals are often looked at favourably, and their perspective may carry more weight in group decision-making (Bendersky & Hays, 2012). High-status ingroup members wield significant influence over the beliefs and behaviours of individuals, particularly when it comes to misinformation (Bendersky & Hays, 2012). This phenomenon is explained by social identity theory, which posits that individuals categorise themselves and others into groups, leading to ingroup favouritism and outgroup discrimination (Tajfel & Turner, 1986). When high-status members endorse certain beliefs or claims, followers may be inclined to accept misinformation as truth due to their desire for social cohesion and conformity to the ingroup. People tend to internalise the beliefs of high-status ingroup members to maintain their social identity (Cialdini, 2001).

Moreover, high-status individuals often possess qualities that engender trust, such as expertise, charisma, or perceived authority. This aligns with the concept of authority bias, where individuals tend to trust the information provided by people in positions of authority

(e.g., Grežo, 2024). Thus, when high-status ingroup members share misinformation, their authority can lead to a rapid spread of false beliefs within the group, as followers may feel compelled to align with their opinions due to perceived expertise. Therefore, high-status ingroup members can create an environment conducive to the rapid transmission of misinformation. This underlines the importance of their social influence in shaping beliefs and social norms (Turner, 2005). The influential role of high-status ingroup members and the psychological tendencies to align with ingroup norms significantly shape how misinformation is distributed and received within social networks. Based on this reasoning, we hypothesise that:

Hypothesis 4: Individuals are more receptive to pseudo-profound information when the source of this information is perceived as a high-status ingroup member rather than as a low-status ingroup member or an outgroup member, irrespective of their status.

THE CURRENT RESEARCH

Three experimental studies were conducted to test the proposed hypotheses that the act of bullshitting is evaluated less negatively than the act of lying (Hypothesis 1); that individuals are more receptive to pseudo-profound information when the source of this information is perceived as high-status than when perceived as low status (Hypothesis 2), when the source of the pseudo-profound information is perceived as an ingroup member than when perceived as an outgroup member (Hypothesis 3), and when the source of the pseudo-profound information is perceived as a high-status ingroup member rather than as a low-status ingroup member or an outgroup member (Hypothesis 4). Given the diverse South African context, we also controlled whether participants belonged to the majority or minority groups. Study 1 ($N = 216$) and Study 2 ($N = 190$), which applied a single-factor between-subjects design, aimed at exploring whether the act of bullshitting is evaluated less negatively than the act of lying (Hypothesis 1). Study 3 ($N = 180$) employed a 2 (status: low versus high) x 2 (group: ingroup versus outgroup) between-subjects factorial design to investigate how social status (Hypothesis 2) and group membership (Hypothesis 3) as well as the interaction between social status and group membership (Hypothesis 4) influence individuals' receptivity to pseudo-profound statements.

Prior to the commencement of the studies, ethical approval was obtained from the University's Research Ethics Committee (Study 1: CA4_13022024_CRECHS_2024; Studies 2 and 3: CREC: # 66181518_CRECHS_2023). Study 1 was part of an Honours research project at a South African Psychology Department in 2024, which means that Honours students approached potential participants outside the university context. Because Studies 2 and 3 included psychology students at a South African University as research participants, permission to involve students in this research was granted by the Research

Permission Subcommittee of the University's Senate, Research, Innovation, Postgraduate Degrees and Commercialisation Committee (Rec-240816-052).

All studies were conducted online using the research platform *Qualtrics*. Potential participants received an email inviting them to participate in the respective study. The email included a link that directed them to the information and consent page. On the information and consent page, participants were informed about the purpose of the respective study, the approximate time required for participation, the voluntary nature of participation, and that they had the option to withdraw from the study at any stage. Participants' anonymity was assured. Participants were then asked to either consent or decline to participate in the study. If the participants provided consent, they were directed to the subsequent pages containing the manipulations and measurements. If the participant chose not to provide consent (or withdrew, or completed the study), they were directed to a page debriefing and thanking them and exiting from the study.

STUDY 1

The aim of Study 1 was to test the hypothesis that the act of bullshitting is evaluated less negatively than the act of lying (Hypothesis 1). To test this hypothesis, we replicated the experimental study by Petrocelli et al. (2023, Study 1), applying the same single-factor between-subjects design and manipulation. Participants were randomly assigned to one of two conditions: bullshitting versus lying. In both experimental conditions, participants received a vignette to read and responded to measures assessing the appraisals and evaluating the respective target's behaviour (i.e., the liar or bullshitter).

Participants

The overall sample consisted of 757 South African adults. The majority of the participants indicated to be female ($n = 482$), and a total of 252 identified as male. Sixteen participants did not opt to indicate their gender. Participants indicated to belong to the following ethnic groups: Black ($n = 455$), White ($n = 165$), Indian/Asian ($n = 39$), Coloured ($n = 80$) and other ($n = 8$). Three participants did not indicate their ethnicity. In line with South Africa's demographic composition, racial groups were classified into majority ($n = 455$) and minority ($n = 292$) groups. The majority group consisted of Black participants, while the minority group included White, Coloured, Indian/Asian, and participants who classified themselves as "others". The age of the participants ranged from 18 to 70 years old, with an average of 32.64 years ($SD = 11.45$).

Procedure

Potential participants were provided through email or social media with the link to the online study. The study started with the information and consent page. This page informed participants that the study aimed at understanding the psychological underpinnings of why

individuals fall for misinformation (see Supplementary Material; Participant Information and Consent Form: Study 1). After reading the information about the study, participants were requested to consent (or dis-consent) to participate in the study. Participants who provided consent to participate in the study proceeded to the experiment, and those who did not consent were thanked.

After consenting, participants were randomly allocated to either the lying condition or the bullshit condition. Irrespective of the experimental condition, participants were given a vignette and asked to read it carefully, as questions about it would be asked later. The same vignettes were used as in the original study by Petrocelli et al. (2023, Study 1), except that the name of the target was changed from *Tom (Jim)* to *Kopano* to make the vignette more relatable to the South African participants. After reading the vignette, participants were presented with the measure assessing the appraisals, the target behavioural evaluation, the manipulation check, and demographic questions.

In the lying condition, the provided content read as follows:

Kopano states something about the advantages and disadvantages concerning daycare for pre-kindergarten children that he knows to be false. That is, Kopano fully knows the advantages and disadvantages of daycare for pre-kindergarten children. Further, Kopano clearly understands what he is talking about. For whatever reason, Kopano communicated with little to no concern or regard for established knowledge or genuine evidence – Kopano did not speak the truth – Kopano spoke a lie.

In the bullshit condition, the provided content read as follows:

Kopano states something about the advantages and disadvantages concerning daycare for pre-kindergarten children that he does not know to be true, nor does Kopano know it to be false. That is, Kopano does not care about the evidence regarding the advantages and disadvantages of daycare for pre-kindergarten children. Further, Kopano does not know or

care if what he is talking about is true or false. For whatever reason, Kopano communicated with little to no concern or regard for established knowledge or genuine evidence – Kopano spoke without any regard for truth.

After the participants had read the vignettes, they were presented with appraisal ascriptions and asked to evaluate Kopano's behaviour. Furthermore, participants were presented with the manipulation check before they were asked to provide demographic information. After participants submitted their responses, they received a debriefing and a thank-you message. More specifically, participants were debriefed by being informed that an experimental approach was used in the present study, which means that different participants received different information. We informed the participants that we could not be up-front right from the beginning about our research approach because it would have influenced their responses. Finally, they were thanked for their time and effort (see Supplementary Material, Debriefing Letter: Study 1).

Measurements

Appraisals/ Causal Ascriptions were assessed by providing participants with the following statements (Petrocelli et al., 2023): Kopano's behaviour is an example of his ignorance, Kopano's behaviour is due to deceptive intentions, Kopano's behaviour is an example of dishonesty, Kopano's behaviour is due to his ulterior motives, Kopano's behaviour is due to his lack of concern for other psychology students, Kopano's behaviour is an expression of his opinion, Kopano is expected to be taken seriously, Kopano was trying to maintain a positive impression, Kopano was trying to appear knowledgeable. Different to Petrocelli et al. (2023), we added the item "Kopano's behaviour is an example of his indifference". Participants were asked to rate each statement using a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Behavioural evaluation of the target's behaviour was assessed by asking the participants to evaluate the behaviour of Kopano (Petrocelli et al., 2023). Participants were given seven semantic differential items using a 9-point response scale with anchor labels: negative/positive, bad/good, unfavourable/favourable, harmful/beneficial, foolish/wise, against/in favour, undesirable/desirable. The behavioural evaluation measure showed an excellent internal consistency with an $\alpha = .91$. Scores below the scale centre of five indicate negative evaluation (i.e., the smaller the scores below five, the more negative the evaluation), while scores above the scale centre of five indicate positive evaluation (the larger the scores above five, the more positive the evaluation).

As a *manipulation check measure*, participants were asked to reflect on and indicate which of the following statements best described Kopano's behaviour. Participants were provided with three statements: (1) *Kopano did not speak the truth – Kopano spoke a lie*, (2) *Kopano spoke without any regard for truth*, or (3) *I cannot remember*. The manipulation check answers of the participants were matched with their allocation to the experimental conditions. The further data analysis included only participants who answered the manipulation check correctly.

Lastly, participants were asked to indicate their gender, age, and ethnicity.

Results and Discussion

Preliminary analysis

The manipulation check analysis revealed that 206 out of 366 participants (56%) allocated to the lying condition answered the manipulation check correctly. Whilst 295 out of 379 participants (78%) who were allocated to the bullshit condition answered the manipulation correctly. Thus, a total of 745 participants were included in the final data analysis.

Table 1 reports the means, standard deviations, and intercorrelations of the principal variables. The analyses revealed negative statistically significant correlations between the appraisals of ignorance, deceptive intentions, dishonesty, ulterior motives, lack of concern and the target behavioural evaluation in the bullshit condition. This indicates that the more the participants appraised the target's behaviour as ignorant, dishonest, deceptive, showing ulterior motives, or as a lack of concern, the more negatively they evaluated the target's behaviour, and vice versa. The analysis also revealed that the more the participants appraised the target's behaviour as an indication that they wanted to portray a positive impression, the more positive they rated the behaviour of the target, and vice versa. It is important to note that most of these relationships ranged from weak to moderate.

Likewise, in the lying condition, the results showed statistically significant negative correlations between the appraisals of deception, dishonesty, ulterior motives, lack of concern and the target's behavioural evaluation. These results indicate that the more the participants rated the target's behaviour as a demonstration of deception, dishonesty, showing ulterior motives, or lack of concern, the more negatively they evaluated the target's behaviour, and vice versa. However, our analyses also revealed that the more the participants appraised the target's behaviour as a mere expression of their opinion, the more positive they rated it, and vice versa. Again, it is important to note that most of these relationships ranged from weak to moderate.

Table 1:*Means, standard deviation and correlation of appraisals and the target's behavioural evaluation for both experimental conditions, Study 1*

		1	2	3	4	5	6	7	8	9	10	11
Bullshit Condition	Mean	4.16	3.76	3.17	3.22	2.97	3.98	3.51	2.85	2.58	3.38	2.97
	SD	1.19	1.23	1.24	1.38	1.23	1.15	1.35	1.43	1.32	1.40	1.61
Lying Condition	Mean	3.36	3.53	4.11	4.52	3.72	4.16	2.84	3.07	2.91	3.46	2.61
	SD	1.60	1.36	1.15	1.05	1.21	1.09	1.44	1.42	1.37	1.35	1.78
1 Ignorance		-	.16**	.16**	.08	.05	.24***	.06	.01	-.08	.04	-.17**
2. Indifference		.22***	-	.11	.19***	.10	.17**	.02	.11	.11	.09	-.11
3. Deceptive Intentions		.17*	.13	-	.49***	.54***	.41***	-.09	.01	-.10	.07	-.14*
4. Dishonesty		.20**	.17*	.47***	-	.55***	.37***	-.13	.04	.08	.21***	-.17**
5. Ulterior Motives		.11	-.05	.40***	.32***	-	.35***	-.08	.06	.04	.14*	-.21***
6. Lack of concern		.37***	.23***	.41***	.8***	.33***	-	-.08	-.11	-	-.01	-.32***
										.22***		

7. Expressing Opinion	.05	.13	-.23***	-.15*	-.17*	-.16*	-	.30***	.03	.16**	.10
8. Expected to be Taken Seriously	-.19**	.00	-.15*	-.14*	-.13	-.10	.31***	-	.27***	.22***	.10
9. Impression Management	-.08	.04	-.15*	-.11	-.16*	-.12	-.18**	.29***	-	.47***	.17**
10. Appear Knowledgeable	.08	-.00	.00	.08	-.06	-.02	.27***	.23***	.35***	-	.02
11. Target Behavioural Evaluation	-.04	-.10	-.25***	-.30***	-.16**	-.20**	.15*	.05	.01	.02	-

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Correlation coefficients for the lying condition are reported in the lower left part of the table. The correlation coefficients for the bullshit condition are reported in the upper right part of the table.

Hypothesis Testing

Hypothesis 1, which states that the act of bullshitting is evaluated less negatively than the act of lying, was tested by using the General Linear Model, whereby the experimental conditions (the lying condition was coded 0, and the bullshit condition was coded 1) were entered as the independent variable and the behavioural evaluation measure as the dependent variable. The test of between-subject effects revealed that there is a statistically significant main effect of the experimental conditions (lying versus bullshit) on the evaluation of the target's behaviour, $F(1,499) = 5.602, p = .034, \eta_p^2 = .011$. More specifically, participants in the lying condition ($M = 2.61, SD = 1.78$) evaluated the behaviour of the target as more negatively than participants in the bullshit condition ($M = 2.97, SD = 0.1.61$). Thus, Hypothesis 1, which stated that the act of bullshitting is evaluated less negatively than the act of lying, was supported by the results of Study 1.

Additionally, we controlled for the possibility of majority/minority effects (whereby the majority group was coded as 0 and the minority group as 1). The test of between-subject effects revealed a significant main effect of the experimental conditions (lying versus bullshit) on the evaluation of the target's behaviour, $F(1,497) = 6.520, p = .011, \eta_p^2 = .013$. Neither the main effect of majority/minority group membership, $F(1,497) = 0.030, p = .863, \eta_p^2 = .000$, nor the interaction term between experimental condition and majority/minority group membership, $F(1,497) = 1.470, p = .226, \eta_p^2 = .003$, was statistically significant. In conclusion, Hypothesis 1, which states that the act of bullshitting is less negatively evaluated than the act of lying, is equally supported for the minority and majority groups.

Furthermore, we compared the means of the appraisals in the two experimental conditions (see Table 2). The participants who were assigned to the lying condition appraised the target's behaviour as significantly more dishonest and more deceptive, showing stronger ulterior motives and cultivating a positive impression compared to the participants in the

bullshit condition. In contrast, participants assigned to the bullshit condition appraised the target's behaviour as significantly more ignorant and expressing an opinion.

The results in Study 1 bear notable similarities in the patterns of how the target's behaviour was evaluated to the original study by Petrocelli et al. (2023, Study 1). The similarities identified refer to the target's behavioural evaluation in the lying condition, specifically through the appraisals of deceptive intentions, dishonesty, and ulterior motives (see Petrocelli et al., 2023, p. 12). Additionally, our results were similar to the original study, where the participants who were allocated to the bullshit condition evaluated the behaviour of the target as more ignorant and as expressing their opinion.

Table 2.

Means, standard deviations, and F-statistics of appraisals for both experimental conditions, Study 1

Variable	Liar <i>n</i> = 206		Bullshitter <i>n</i> = 295		<i>F</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Ignorance	3.36	1.60	4.16	1.19	40.84	< .001
Indifference	3.53	1.37	3.76	1.23	3.71	.054
Deceptive Intentions	4.11	1.15	3.17	1.24	73.33	< .001
Dishonesty	4.52	1.05	3.22	1.38	131.05	< .001
Ulterior Motives	3.72	1.20	2.97	1.23	46.12	< .001
Lack of Concern	4.16	1.09	3.98	1.15	3.25	.072
Expressing Opinion	2.84	1.44	3.51	1.35	28.68	< .001
Expected to be Taken Seriously	3.07	1.43	2.85	1.43	2.94	.087
Impression Management	2.91	1.32	2.58	1.32	7.30	< .008
Appear Knowledgeable	3.46	1.35	3.38	1.40	0.42	.516

Lastly, we tested for the interplay between experimental conditions, appraisals, and the evaluation of the target's behaviour by estimating the direct and indirect effects, applying the bootstrap approach to construct a bias-corrected confidence interval based on 5000 iterations using Process (# Model 4, see Preacher & Hayes, 2004, 2008; Hayes, 2013). The experimental conditions were entered as the independent variable (coded 0 for the lying condition and 1 for

the bullshit condition), the appraisals as parallel mediator variables, and the evaluation of the target behaviour as the dependent variable.

The results revealed a statistically significant overall model, $F(11,489) = 5.73, p < .001$, explaining a 11.43% variance of the dependent variable. While the total effect of the experimental conditions on the target's behavioural evaluation was statistically significant, $\beta = .3620, SE = 0.1529, t = 2.367, p = .018, 95\%CI [.0615; .6625]$, neither the direct effect of the experimental conditions on the target's behavioural evaluation, $\beta = -.0879, SE = 0.1786, t = 0.4919, p = .6230, 95\%CI [-.2631; .4389]$ nor indirect effects (see Table 3) reached statistical significance.

Unlike Petrocelli et al.'s (2023, Study 1) findings, which revealed a statistically significant negative indirect effect of experimental condition on the target's behavioural evaluation through ignorance and statistically significant positive effects through dishonesty and expressing an opinion, the present study did not find any statistically significant indirect paths through any of the appraisals.

Table 3:

Indirect effects between experimental conditions and the target's behavioural evaluation through appraisals, Study 1

	<i>B</i>	<i>BootSE</i>	<i>BootLLCI</i>	<i>BootULCI</i>
Ignorance	-.0237	.0459	-.1162	.1075
Indifference	-.0174	.0189	-.0658	.0090
Deceptive Intentions	.0157	.0801	-.1440	.1778
Dishonestly	.1453	.0976	-.0417	.3514
Ulterior Motives	.0742	.0628	-.0493	.2013
Lack of Concern	.0458	.0300	-.0039	.1141
Expression of opinion	.0637	.0430	-.0164	.1556
Expected to be Taken Seriously	-.0065	.0149	-.0433	.0182
Impression Management	-.0240	.0252	-.0824	.0174
Appear Knowledgeable	.0011	.0100	-.0197	.0246

In conclusion, the aim of Study 1 was to test the hypothesis that the act of bullshitting is evaluated less negatively than the act of lying (Hypothesis 1) by replicating the original experiment of Petrocelli et al. (2023, Study 1). The results of our study imply that there is a significant difference in how people evaluate the act of lying compared to the act of bullshitting. Specifically, our results align with previous findings suggesting that people tend to be more forgiving towards the bullshitter compared to the liar.

In the original study by Petrocelli et al. (2023, Study 1), the participants who were assigned to the bullshit condition appraised the target's behaviour as more ignorant, as more expressing of an opinion, and as more apparent to be knowledgeable when compared to participants in the liar conditions. Our findings revealed two parallels with these original

findings, in that we also found that participants assigned to the bullshit condition evaluated the target's behaviour as more ignorant and more as an expressing of opinion when compared to participants in the lying condition. Furthermore, like in the original study of Petrocelli et al. (2023, Study 1), participants allocated to the lying condition appraised the target's behaviour as relatively more deceptive, dishonest and showing ulterior motives. Notably, different to the original study, in our study, participants in the lying condition appraised the target's behaviour as a display of positive impression. Also, unlike the original study by Petrocelli et al. (2023), the present study did not find that the relationship between experimental conditions and the target's behaviour evaluation was mediated through any appraisals.

Overall, the present study replicated the main finding of Petrocelli et al. (2023, Study 1) by providing evidence supporting the hypothesis that the act of bullshitting is evaluated less negatively than the act of lying. However, the role of the appraisals in mediating the relationship between the experimental conditions and the target's behaviour evaluation was not confirmed. The latter might be because, different to Petrocelli et al. (2023; Study 1), which used college students as research participants, the present study was conducted with a heterogeneous non-student sample. Diverse backgrounds, experiences, and contexts may introduce confounding variables that can influence the results. To address this limitation, we re-tested Hypothesis 1 with a more homogenous sample (i.e., Black South African psychology students) in a subsequent study. Another reason that the results of Petrocelli et al. (2023, Study 1) concerning the mediation role of appraisals in the interplay between experimental conditions and the evaluation of the target's behaviour could not be replicated might be because of the role of bullshit receptivity. For instance, Littrell et al. (2012) found that although producing bullshit and falling for bullshit represent two distinct concepts, they are psychologically related as persuasive bullshitting positively and significantly predicts bullshit receptivity. One could argue that those who are receptive to bullshit evaluate the bullshitter and the liar as more

positive because a bullshitter might be more forgiving towards people who are deceptive about the truth. If our reasoning is correct, one would expect that the higher participants score on bullshit receptivity, the less negative they should evaluate the bullshitter or the liar.

STUDY 2

The aim of Study 2 was to re-test Hypothesis 1 that the act of bullshitting is less negatively evaluated than the act of lying. The same design and measures were used. However, different from Study 1, we changed the content of the vignettes to be relevant for psychology students, and we included the measure of bullshit receptivity in Study 2. Like in Study 1, a single-factor between-subjects research design was applied. Participants were randomly assigned to one of two conditions: bullshitting versus lying. In both experimental conditions, participants received a vignette to read and respond to the same measures assessing the appraisals and evaluating the respective target's behaviour.

Participants

In total, 491 psychology students from a South African university started the study. Of those, 213 completed all measures and identified as Black South Africans. The majority of participants indicated as females ($n = 185$). A total of 26 participants identified as males, and two participants preferred not to indicate their gender. The average age was 29.73 ($SD = 8.07$), ranging from 18 to 64 years.

Procedure

The procedure was similar to Study 1. Participants were invited via email to participate in the study. After reading the information about Study 2 (see Supplementary Material, Participant Information and Consent Form: Study 2), they were requested to consent (or dis-consent) to participate in the study. After providing consent, participants were asked to complete the Bullshit Receptivity scale. This was followed by a destruction measure where participants were asked to read three statements and identify the correctness of logical conclusions. The destruction was introduced to reduce the possibility that answering the

Bullshit Receptivity scale might influence the measures presented after the manipulation. Participants were then randomly allocated to either the lying condition or the bullshitting condition. In each condition, participants were provided with a vignette and asked to read it carefully, as questions about it would be asked later. The vignettes were developed in line with the manipulations used by Petrocelli et al. (2021) but adapted to the context of our participants, who are psychology students. More specifically, we changed the social context from someone talking about childcare to someone talking about post-graduate studies in psychology.

In the lying condition, participants were provided with the following vignette:

Kopano states something about the advantages and disadvantages concerning post-graduate studies in psychology that he knows to be false. That is, Kopano knows fully well the evidence regarding the advantages and disadvantages concerning the advantages and disadvantages for post-graduate studies in psychology. Furthermore, Kopano clearly understands what he is talking about. Kopano did not speak the truth – Kopano spoke a lie.

In the bullshit condition, the provided content read as follows:

Kopano states something about the advantages and disadvantages concerning post-graduate studies in psychology; that he does not know to be true, nor does Kopano know this information to be false. That is, Kopano doesn't care about the evidence regarding the advantages and disadvantages of post-graduate studies in psychology. Furthermore, Kopano does not know or care if what he is talking about is true or false. Kopano is communicating with little or no regard for establishing knowledge or genuine evidence – Kopano spoke without any regard for the truth.

After participants had read the vignettes, they were presented with the same measures as in Study 1 to assess the appraisals and to evaluate the target's behaviour before they were asked to provide demographic information. After submitting their responses, participants

received a debriefing and a thank-you message (see Supplementary Material, Debriefing Letter: Study 2).

Measurements

Bullshit Receptivity was measured using the Bullshit Receptivity Scale (Pennycook & Rand, 2015). Participants were presented with statements such as “*Hidden meaning transforms unparalleled abstract beauty*” and “*wholeness quiets infinite phenomena*”. After reading each statement, participants were asked to rate the profundity of each statement using an answer format ranging from 1 (*not at all profound*) to 5 (*very profound*). High scores indicate that the participants are receptive to bullshit. In contrast, low scores suggest that the participants can differentiate between what is bullshit information and what is factual information ($\alpha = .83$).

Destruction measure was assessed by requesting participants to read three statements and identify the correctness of logical conclusions. For instance, participants read, “Zach is taller than Tom” and “Thembelani is shorter than Zach”. They were then asked to identify the correct logical conclusion that can be made from this statement, ranging from “Thembelani is taller than Tom”, “Thembelani is shorter than Tom”, “Thembelani is as tall as Tom” and “It is impossible to tell”. This measure was intended to avoid that the Bullshit Receptivity measure might affect participants’ experience when reading the information provided in the vignettes.

Appraisals/ Causal Ascriptions and the *target behavioural evaluation* ($\alpha = .89$) were assessed as in Study 1.

Lastly, participants were asked to indicate their gender, age, and ethnicity.

Results and Discussion

Preliminary analysis

Table 4 reports the principal variables' means, standard deviations, and intercorrelations. The results show that for the lying condition ($n = 106$), the more participants appraise the target's behaviour as a sign of deceptive intention, ulterior motives, and an expression of their opinion, the more positively they evaluate the behaviour of the target, and vice versa. We also found that the more the participants appraised the target's behaviour as dishonest, the more negatively they evaluated the behaviour of the target, and vice versa.

On the other hand, in the bullshit condition ($n = 107$), our analysis revealed that the more the participants appraised the behaviour of the target as showing of positive impression and an attempt to be taken seriously, the more positively they evaluated the behaviour of the target, and vice versa. We also found that the more the participants appraised the target's behaviour as dishonest and as a display of deceptive intentions, the more negatively they evaluated the target's behaviour, and vice versa.

Lastly, our study also revealed a statistically significant correlation between bullshit receptivity and the target's evaluation, in that receptivity to bullshit is associated with a more favourable evaluation of the target. This indicates that individuals who are more open to falling for misinformation tend to evaluate the target more positively, and vice versa.

Table 4:*Means, standard deviation and correlation of appraisals and the target's behavioural evaluation for both experimental conditions, Study 2*

		1	2	3	4	5	6	7	8	9	10	11	12
Lying Condition	Mean	1.58	3.76	4.08	3.72	3.35	3.40	3.20	3.91	3.64	2.97	3.05	3.46
	SD	0.49	2.02	1.20	1.11	1.13	1.21	1.16	1.08	1.29	1.32	1.24	1.38
Bullshit Condition	Mean	1.59	3.89	3.36	3.42	3.65	3.93	3.37	3.51	3.75	3.20	3.61	4.10
	SD	0.69	2.07	1.23	1.11	1.07	1.21	1.17	1.22	1.30	1.28	1.16	1.06
<hr/>													
1 Bullshit Receptivity		-	.17	-.07	.10	.06	.02	.19*	.12	.03	.22**	.27**	.18
2. Target Evaluation		.19*	-	-.06	.13	.22**	-.23**	.19*	-.08	.28**	.10	.19	.07
3. Ignorance		.03	-.19	-	-.06	.16	.05	.05	.26**	-.10	-.12	-.07	.03
4. Indifference		.28**	-.08	.40**	-	.23**	-.01	.18	.02	.22**	.15	.07	.03
5. Deceptive Intentions		-.03	-.28**	.20*	.23*	-	.28**	.48***	.24**	.21*	.15	.16	.22**
6. Dishonesty		-.18	-.33**	.24*	.28**	.46**	-	.19	.33***	-.10	.03	-.01	.22**

7. Ulterior Motives	-.03	-.15	.12	.19*	.38**	.33*	-	.29**	.01	.10	.28**	.06
8. Lack of concern	.15	-.15	.16	.30**	.40**	.29**	.18	-	-.02	.03	.01	.19
9. Expressing Opinion	.21*	.08	.28**	.25*	.09	-.24*	-.02	.04	-	-.06	.15	.13
10. Taken Seriously	-.13	.22*	.04	-.09	-.01	-.10	.07	-.01	.04	-	.25**	.15
11. Positive Impression	.19	.20*	.06	.17	.13	.12	.01	.14	.28**	.15	-	.13
12. Appear Knowledgeable	-.02	-.08	.24*	.12	.17	.24*	.26*	.12	.14	.05	.26**	

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Correlation coefficients for the bullshit condition are reported in the lower left part of the table. The correlation coefficients for the lying condition are reported in the upper right part of the table.

Hypothesis Testing

Hypothesis 1, which stated that the act of lying is evaluated more negatively than the act of bullshitting, was again tested using the General Linear Model, whereby the experimental conditions (coded 0 for the lying condition and 1 for the bullshit condition) were entered as the independent variable and the behavioural evaluation measure as the dependent variable. The analysis revealed, like in Study 1, that participants in the lying condition ($M = 3.75, SD = 2.02$) evaluated, on average, the target's behaviour more negatively than participants in the bullshit condition ($M = 3.89, SD = 2.08$). This difference, however, did not reach statistical significance, $F(1, 212) = 0.239, p = .626, \eta_p^2 = .001$. Consequently, although the means point in the expected direction, the results of the statistical significance analysis of Study 2 do not support Hypothesis 1.

Additionally, we conducted the same analysis but controlled for the possible covariate bullshit receptivity. The results again showed that participants in the lying condition ($M = 3.75, SD = 2.02$) did not significantly differ in their negative evaluation of the target's behaviour when compared to participants in the bullshit condition ($M = 3.89, SD = 2.08$), $F(1,212) = 0.059, p = .808, \eta_p^2 = .000$. Interestingly, we did find an effect of bullshit receptivity on the target behaviour evaluation, $F(1,212) = 7.033, p = .009, \eta_p^2 = .032 [B = .51, t = 2.65, p = .009]$, suggesting that the more participants are receptive to pseudo-profound information, the more positive they evaluate the target. This result supports the reasoning concerning the role of bullshit receptivity in evaluating people who are deceptive about and/or indifferent towards the truth.

We also compared the means of the appraisals in the two experimental conditions. As seen in Table 5, participants who were assigned to the bullshitting condition appraised the behaviour of the target as significantly more dishonest, more deceptive, and as more of an indication to provide a positive impression and come across as knowledgeable than those in

the lying condition. In contrast to Study 1, the participants assigned to the lying condition appraised the behaviour of the target as significantly more ignorant and lacking concern than participants in the bullshit condition. In contrast, in the original study by Petrocelli et al. (2023, Study 1), the participants who were assigned to the lying condition evaluated the target's behaviour as significantly more deceptive, dishonest, and as a display of ulterior motives. Therefore, Study 2 contradicts the original findings by Petrocelli et al. (2023).

Table 5:

Means, standard deviations and F-statistics of appraisals for both experimental conditions, Study 2

Variable	Liar n = 106		Bullshitter n = 107		F	p
	M	SD	M	SD		
Ignorance	4.08	1.20	3.36	1.23	18.63	< .001
Indifference	3.72	1.11	3.42	1.10	3.80	.052
Deceptive Intentions	3.35	1.14	3.65	1.07	4.05	.045
Dishonesty	3.40	1.22	3.93	1.21	10.12	.002
Ulterior Motives	3.20	1.16	3.37	1.17	1.21	.272
Lack of Concern	3.91	1.08	3.51	1.22	6.16	.014
Expressing Opinion	3.64	1.29	3.75	1.30	0.36	.551
Expected to be Taken Seriously	2.97	1.32	3.20	1.28	1.59	.208
Impression Management	3.05	1.24	3.61	1.16	11.59	< .001
Appear Knowledgeable	3.46	1.38	4.10	1.06	14.40	< .001

Lastly, we assessed the interplay between experimental conditions, appraisals, and evaluation of the target behaviour. More specifically, we replicated the analysis of the indirect effects between the experimental conditions and the evaluation of the target behaviour through the appraisals of ignorance, indifference, deceptive intentions, dishonesty, ulterior motives, lack of concern, expressing opinion, being taken seriously, positive impression, and knowledgeable (Petrocelli et al., 2023). To test for the indirect effects, we again applied the bootstrap approach to construct a bias-corrected confidence interval based on 5000 iterations using Process (# Model 4, see Preacher & Hayes, 2004, 2008; Hayes, 2013). The experimental conditions were entered as the independent variable (coded 0 for the lying condition and 1 for the bullshit condition), the appraisals as parallel mediator variables, and the evaluation of the target behaviour as the dependent variable. The results of the indirect effects are reported in Table 6.

The results revealed again a statistically significant overall model, $F(11,201) = 3.72, p < .001$, explaining a 15.68% variance of the dependent variable. While the total and direct effects of the experimental conditions on the target's behavioural evaluation were not statistically significant, $\beta = .1371, SE = 0.2807, t = 0.489, p = .6257, 95\%CI [-.4162; .6905]$, and $\beta = -.0059, SE = 0.3056, t = -0.019, p = .9845, 95\%CI [-.6085; .5966]$, respectively, two of the indirect effects revealed to be statistically significant. More specifically, Study 2 found a statistically significant negative indirect effect between the experimental conditions and the evaluation of the target behaviour through the appraisal of dishonesty and a statistically significant positive indirect effect through positive impression (see Table 6). In contrast to the findings of Petrocelli et al. (2023), who found that liars are perceived as more dishonest than bullshitters and that the more dishonest the target is perceived, the less positive their behaviour is evaluated, the present study found that the bullshitter is perceived as more dishonest than the liar, $\beta = .529, SE = 0.167, t = 3.181, p < .01, 95\%CI [.2012; .8568]$. Like in the Petrocelli et al.

(2023) study, appraising the target's behaviour as dishonest negatively predicts the evaluation of the target, $\beta = -.449$, $SE = 0.127$, $t = -3.512$, $p < .001$, 95%CI [-.7016; -.1971]. Furthermore, we found that participants in the bullshit condition appraised the target's expression of positive impression more positively than in the lying condition, $\beta = .56$, $SE = 0.165$, $t = 3.41$, $p < .01$, 95% CI [.2359; .8847], and that the more the target's behaviour is appraised as impression management, the more positive the target's behaviour is evaluated, $\beta = .249$, $SE = 0.119$, $t = 2.09$, $p < .05$, 95% CI [.0149; .4840].

Table 6:

Indirect effect between experimental conditions and the target's behavioural evaluation through appraisals, Study 2

	<i>B</i>	<i>BootSE</i>	<i>BootLLCI</i>	<i>BootULCI</i>
Ignorance	.1133	.0967	-.0443	.3335
Indifference	-.0159	.0421	-.1153	.0580
Deceptive Intentions	.0178	.0440	-.0642	.1188
Dishonestly	-.2377	.1009	-.4504	-.0646
Ulterior Motives	.0151	.0319	-.0504	.0870
Lack of Concern	.0391	.0527	-.0595	.1565
Expression of Opinion	.0159	.0357	-.0411	.1085
Expected to be Taken Seriously	.0397	.0421	-.0283	.1370
Impression Management	.1398	.0751	.0070	.2980
Appear Knowledgeable	.0160	.0749	-.1375	.1620

In conclusion, the aim of Study 2 was to re-test the hypothesis that the act of bullshitting is evaluated less negatively than the act of lying (Hypothesis 1). The results of Study 2 suggest that the participants who were assigned to the lying condition did not evaluate the target behaviour differently from participants in the bullshit condition. Thus, Hypothesis 1 was not confirmed in Study 2. Consequently, our findings do not align with the findings in Study 1.

However, our study showed that higher receptivity to misinformation is linked to a more favourable evaluation of the target's behaviour. This suggests that individuals who are more susceptible to misinformation are likely to assess the target's behaviour less negatively. The relationship between bullshit receptivity and a more favourable evaluation of the target's behaviour may be because those who are receptive to bullshit evaluate the bullshitter and the liar as more positive, because a bullshitter might be more forgiving towards people who are deceptive about and/or indifferent towards the truth. Different to Petrocelli et al. (2023, Study 1) and our first study, we found in Study 2 that participants, who were assigned to the bullshit condition, appraised the target's behaviour as significantly more dishonest, more deceptive, and as an indication to provide a positive impression than those in the lying condition. In contrast, Petrocelli et al. (2023) found that the participants who were assigned to the bullshit condition appraised the target's behaviour as significantly more ignorant and more representative of expressing an opinion compared to the lying condition.

Also different to Petrocelli et al. (2023, Study 1) are the findings concerning the role of appraisals in the relationship between experimental conditions and evaluation of the target's behaviour. Specifically, our results revealed a statistically significant negative indirect effect of the experimental conditions on the evaluation of the target's behaviour through the appraisal of dishonesty and a significant positive indirect effect through the perception of a positive impression. Participants perceived the bullshitter as more dishonest than the liar, contrary to Petrocelli et al. (2023), who found that the liar is perceived as more

dishonest than the bullshitter. Additionally, and consistent with Petrocelli et al. (2023), appraising the target's behaviour as dishonest negatively impacted the evaluation of the target's behaviour. Moreover, our study revealed that appraising the target behaviour as "*trying to maintain a positive impression*" corresponded with a more favourable evaluation of the target's behaviour.

Overall, the results of Study 1 and Study 2, which differed not only regarding Hypothesis 1 that the act of bullshitting is evaluated less negatively than the act of lying but also with regard to the role of appraisals, might support the reasoning that people's evaluations are more sensitive to contextual information. For instance, that Hypothesis 1 could not be confirmed in Study 2 might have been caused by the fact that the target "Kopano" made statements about postgraduate studies. Thus, it could have been that since our participants were undergraduate students, some of them perceived Kopano as a postgraduate student and thus higher in status, while others might not. Likewise, the target might have been perceived as an outgroup member (belonging to the outgroup) rather than an ingroup member. Previous research has shown how status and group membership of the source influence beliefs (e.g., Hogg & Write, 2007; Brogden, 2020; Gligorić & Vilotijević, 2019; Ilic & Damjanović, 2021). Thus, in Study 3, we explored the direct influences of the source of bullshit perceived as high or low status (Hypothesis 2) and as ingroup or outgroup member (Hypothesis 3) and their interactive influence on individuals' receptivity to pseudo-profound statements (Hypothesis 4).

STUDY 3

The aim of Study 3 was to investigate how social status and group membership influence individuals' receptivity to pseudo-profound statements. More specifically, three hypotheses were tested. The first hypothesis posited that individuals are more receptive to pseudo-profound information when the source of the pseudo-profound information is perceived as high status rather than as low status (Hypothesis 2). The second hypothesis asserted that individuals are more receptive to pseudo-profound information when the source of the pseudo-profound information is perceived as an ingroup member rather than an outgroup member (Hypothesis 3). Finally, we tested the hypothesis that individuals are more receptive to pseudo-profound information when the source of this information is perceived as a high-status ingroup member rather than as a low-status ingroup member or an outgroup member, irrespective of their status (Hypothesis 4). To empirically test these hypotheses, a 2 (status: low versus high) x 2 (group: ingroup versus outgroup) between-subjects factorial design was applied, wherein participants were randomly assigned to one of four experimental conditions: high-status and ingroup condition, low-status and ingroup condition, high-status and outgroup condition or low-status and outgroup condition. To manipulate the status and group membership of the source of the pseudo-profound information, participants were presented with a list of statements that were either produced by an ingroup member with high or low status or by an outgroup member with high or low status. Both identification with the ingroup and perceived profundity of the presented statements were measured.

Participants

A total of 85 psychology students from a South African university participated in Study 3. Seventy-one participants reported being females, 12 indicated to be males, and two indicated to be non-binary/third gender. The majority of the participants identified themselves as Black

South Africans ($n = 59$), 11 White South Africans, 7 Indians/Asian South Africans, 7 Coloured South Africans, and 1 participant selected the option of “other”. These participants were, on average, 26.56 years old ($SD = 7.52$), ranging from 18 to 54 years.

Procedure

Participants were invited via email to participate in the study. After reading the information concerning the study (see Supplementary Material, Participant Information and Consent Form: Study 3), they were requested to consent (or dis-consent) to participate in the study. After providing consent, participants were asked to complete an ingroup identification measure. Depending on the condition the participants were assigned to, they were provided with an instruction that they would be presented with ten statements which were either authored by a psychology professor (ingroup and high-status condition), 1st year psychology student (ingroup and low-status condition), an engineering professor (outgroup and high-status condition), or 1st year engineering student (outgroup and low-status condition). Before participants were asked to read each statement carefully and rate its profundity, they were presented with a definition of profoundness. This task was followed by asking participants demographic questions (i.e., gender, age, ethnicity). Participants were thanked for completing the study and provided with the debriefing statement (see Supplementary Material, Debriefing Letter: Study 3).

Measurements

Ingroup identification was assessed using selected and adopted items from Leach et al.’s (2008) Group Identification Scale. Participants were presented with the following six items: “I feel a bond with psychology students”, “I am glad to be a psychology student”, “I feel committed to psychology students”, “I feel solidarity with psychology students”, “I think that

psychology students have a lot to be proud of”, and “Being a psychology student gives me a good feeling”. Participants responded on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The scale demonstrated a reliability coefficient of $\alpha = .86$, indicating appropriate internal consistency.

Perceived profundness was measured using the Bullshit Receptivity Scale (Pennycook & Rand, 2015). The ten statements participants were provided with consisted of five pseudo-profound and five profound statements. The pseudo-profound statements which were used included: “Consciousness is the growth of coherence, and of us”, “We are non-local beings that localize as a dot then inflate to become non-local again. The universe is mirrored in us”, “As you self-actualize, you will enter into infinite empathy that transcends understanding”, “Every material particle is a relationship of probability waves in a field of infinite possibilities, you are that” and “Perceptual reality transcends the subtle truth” (Pennycook et al., 2015). The five profound statements were the following: “To go wrong in one's own way is better than to go right in someone else's”, “Life is like riding a bicycle. To keep your balance you must keep moving”, “They always say that time changes things, but you actually have to change them yourself”, “Remind yourself too that each of us lives only in the present moment, a mere fragment of time: the rest is life past or uncertain future”, and “The human soul is inconceivable because of its desires which are hungry of pleasures that the heart seeks. It is weird that it is a bit necessary for us to be happy, and even more strange: how often we lack it” (Pennycook et al., 2015). The participants were then asked to rate the profundity of the statements using a 5-point Likert scale, rating from 1 (*not profound*) to 5 (*very profound*). A high score of the pseudo-profound statements indicates that the participants are receptive to bullshit. In contrast, a low score suggests that the participants can differentiate between what is bullshit information and what is factual information. The pseudo-profound statement items demonstrated a reliability coefficient of $\alpha = .75$, indicating appropriate internal consistency.

Lastly, participants were asked to indicate their gender, age, and ethnicity.

Results and Discussion

Preliminary Analysis

Table 7 reports the means, standard deviations and intercorrelations for the pseudo-profound statements and identification with psychology students. The analysis revealed a statistically significant positive relationship between pseudo-profound statements and identification with psychology students. This implies that the more participants identified with their ingroup, the more receptive they were to pseudo-profound statements, and vice versa.

Table 7:

Means, standard deviation and correlations of the pseudo-profound statements and identification with psychology students across the four experimental conditions, Study 3

	1	2
Mean	4.01	4.10
SD	0.71	0.79
1. Pseudo-Profound statements	-	.
2. Identification with psychology students	.47***	-

*Note: *** $p < .001$*

Hypothesis testing

The hypothesis that individuals are more receptive to pseudo-profound information when the source of the pseudo-profound information is perceived as high status than as low status (Hypothesis 2), that individuals are more receptive to pseudo-profound information

when the source of the pseudo-profound information is perceived as an ingroup member than as an outgroup member (Hypothesis 3), and that individuals are more receptive to pseudo-profound information when the source of this information is perceived as a high-status ingroup member rather than as a low-status ingroup member or an outgroup member irrespective of status (Hypothesis 4) were tested using the General Linear Model. Receptivity to pseudo-profound statements was entered as the dependent variable, and source's status (high-status vs low-status) and group membership (ingroup vs outgroup) were entered as the independent variables. Identification with psychology students was entered as a covariate.

The analysis of between-subject effects revealed that there is no statistically significant main effect of the source's status on receptivity to pseudo-profound statements, $F(1,84) = 0.148, p = .702, \eta_p^2 = .002$. This result does not support Hypothesis 2. Likewise, there was no statistically significant main effect of the source's group membership on receptivity to pseudo-profound, $F(1,84) = 0.119, p = .731, \eta_p^2 = .001$. This result does not support Hypothesis 3. However, the interaction term between the source's status and group membership reached statistical significance, $F(1, 84) = 3.956, p = .050, \eta_p^2 = .047$. More specifically, the pairwise comparison showed that participants were most receptive when the source was an ingroup member and low status ($M = 4.144, SE = 0.133, n = 22$) when compared to participants in the ingroup member and high-status condition ($M = 3.844, SE = 0.133, n = 22$), $F(1,80) = 2.924, p = .091, \eta_p^2 = .035$. It is important to note that the statistical significance was marginal, and the sample sizes were relatively small. The pairwise comparison of outgroup x status was not statistically significant, $F(1,80) = 1.242, p = .268, \eta_p^2 = .015$.

These results suggest that, different to the hypothesised relationship between status and group membership, i.e., individuals are more receptive to pseudo-profound information when the source of this information is perceived as a high-status ingroup member rather than as a low-status ingroup member or an outgroup member, irrespective of their status, participants in

Study 3 were more receptive to pseudo-profound information when the source of this information was a low-status ingroup member rather than a high-status ingroup member. Again, these conclusions need to be treated with caution given the marginal p-value and the small sample sizes, which are known to affect the internal validity negatively.

GENERAL DISCUSSION

The overall aim of this research was twofold: first, to test the *insidious bullshit hypothesis*, and secondly, to explore whether and how social status and group membership of the bullshitter influence individuals' receptivity to pseudo-profound bullshit statements. More specifically, we tested the hypotheses that the act of lying is evaluated more negatively than the act of bullshitting (Hypothesis 1), that individuals are more receptive to pseudo-profound bullshit information when the source is perceived as high status (Hypothesis 2), ingroup member (Hypothesis 3), and that individuals are most receptive to pseudo-profound information when the source is a high-status ingroup member rather than a low-status ingroup member or an outgroup member irrespective of their status (Hypothesis 4).

Hypothesis 1 was tested in two experimental studies (Study 1 and Study 2). The results of Study 1 supported the *insidious bullshit hypothesis* that the act of lying is evaluated more negatively than the act of bullshitting. This finding aligns with the previous research by Petrocelli et al. (2023), which also showed that bullshit is evaluated less negatively than lying. However, the *insidious bullshit hypothesis* was not supported statistically, although the mean pointed to the expected direction, by the results in Study 2.

Additional analyses further revealed that, like in the original study by Petrocelli et al. (2023, Study 1), participants in the lying condition showed a similar pattern by assessing the target's behaviour through the lens of deceptive intentions, dishonesty and the attribution of ulterior motives (Study 1). In contrast, and yet consistent with the findings from the original study by Petrocelli et al. (2023, Study 1), participants in the bullshit condition regarded the target's behaviour as significantly more ignorant, interpreting it as simply an expression of opinion. However, the patterns of assessing the target's behaviour not only differed in Study 2, but they were also more complex. For instance, participants in the lying condition perceived the target as ignorant and lacking concern. In the bullshit condition, participants evaluated the

target's behaviour not only as significantly more dishonest and deceptive but also as indicative of an intention to create a favourable impression and come across as knowledgeable. Different to the original study of Petrocelli et al. (2023), who reported significant indirect effects through appraisals such as ignorance and dishonesty, neither the direct effect of the experimental conditions on behavioural evaluation was statistically significant, nor were the indirect paths through the appraisals statistically significant in Study 1. This suggests that while participants did evaluate bullshitting more favourably than lying overall, this difference was not explained by the specific appraisals measured in the study.

Unlike Study 1, Study 2 yielded significant indirect effects. Specifically, the analysis revealed an indirect effect of the experimental conditions on behavioural evaluation through the appraisal of dishonesty. Participants in the bullshitting condition perceived the source as more dishonest, which in turn led to a more negative evaluation of the behaviour. Additionally, an indirect effect was observed through the appraisal of impression management, indicating that participants also interpreted the bullshitter's behaviour as an attempt to maintain a favourable image, which positively influenced their evaluation. These findings suggest a more nuanced interpretation of bullshitting, where it is simultaneously perceived as dishonest and image-conscious. Notably, these results differ from those of Petrocelli et al. (2023), who found that liars were perceived as more dishonest than bullshitters.

Furthermore, in Study 2, the role of bullshit receptivity emerged as a critical factor, with higher receptivity to misinformation linked to a more favourable evaluation of the target's behaviour. More specifically, this result indicates that participants who were more open to falling for pseudo-profound statements rated the target's behaviour less negatively. This result supports previous findings that cognitive biases, such as susceptibility to misinformation, can shape perceptions and attitudes in ways that may not be immediately recognisable (Littrell & Fugelsang, 2024; Pennycook & Rand, 2019). Additionally, this highlights the need for critical

thinking and scepticism in evaluating information that individuals encounter (Littrell & Fugelsang, 2024; Pennycook & Rand, 2019)

Lastly, the results concerning Hypotheses 2 to 4 were rather ambiguous as neither the bullshitter's status (Hypothesis 2) nor group membership (Hypothesis 3) directly affected receptivity to pseudo-profound information. However, the interaction between social status and group membership was statistically significant, although marginally, and the results implied, contradicting our assumption, that participants were most likely to be receptive to pseudo-profound information when the source was a low-status ingroup member. We would argue that our results were influenced by methodological shortcomings, such as the missing manipulation check on whether our participants perceived a professor and the outgroup of engineers indeed as high-status relative to themselves as students studying psychology.

Overall, the findings of the three studies have various important implications. Firstly, the insidious bullshit hypothesis, which implies that bullshitting is evaluated less negatively than lying, could not be consistently supported. The inconsistency in findings between Study 1 and Study 2 may stem from multiple factors. One significant aspect is the differing material used in the studies and measurements applied, such as a variation in how lying and bullshitting were framed, and that bullshit receptivity was measured. For example, while Study 1 used the same material as the original study by Petrocelli et al. (2023) to manipulate lying versus bullshitting, in Study 2, the target individual made lying or bullshit statements about postgraduate studies, which may have led participants to perceive the source as a high-status individual, subsequently influencing their evaluations. Additionally, Study 2 introduced a bullshit receptivity measure to assess responses to pseudo-profound information, which was not included in Study 1. Although a distraction between measuring bullshit receptivity and the actual experiment was incorporated, the changing design might have influenced participants in the target evaluation, causing the different results in Study 1 and Study 2. Given the fact that

experimental research testing the insidious bullshit hypothesis is still scarce, our findings suggest that the tendency to evaluate bullshitting as less negatively than lying might be sensitive to context. That it is seemingly the influence of context and not population can be concluded in Study 1, which confirmed the insidious bullshit hypothesis, involved a non-student population. In contrast, Study 2, which did not confirm the insidious bullshit hypothesis, was conducted with a student population, like the original study by Petrocelli et al. (2023), but applied different material to manipulate the independent variable. However, future research should test the insidious bullshit hypothesis by systematically varying both contexts (information) and populations (samples) to establish its invariant nature.

Secondly, as the effects of the insidious bullshit hypothesis might depend on contextual factors, so might the attribution and evaluation of the liar and bullshitter depend. The differing assessments in quantity and quality of the target's behaviour in Studies 1 and 2 provide a hint but should also be systematically studied. Thirdly, the interplay between the experimental conditions, appraisals, and the evaluation of the target's behaviour also yielded distinct findings. While no statistically significant indirect paths through any of the appraisals were identified in Study 1, Study 2 found a negative indirect effect of the experimental conditions on the target's behavioural evaluation through the appraisal of dishonesty, and a positive indirect effect through the appraisal of positive impression. This suggests that participants perceived the bullshitter as more dishonest than the liar, which is contrary to Petrocelli et al. (2023), who found that the liar is perceived as more dishonest than the bullshitter. Again, future research should address these inconsistencies.

Lastly, although we could not demonstrate the individual effects of the lying or bullshit source's status and group membership, we would argue that improved experimental designs might be able to detect these impacts. Future research should also address the question, whether the experienced obligation to have opinions about nearly everything, as stressed by Frankfurt

(1986/2005), influences people's ability to distinguish between lies and bullshit and thus, between liar and bullshitter. Likewise, one could argue that social contexts that not only acknowledge the existence of "alternative truths" but also reward these "alternative truths" (for instance, as critical engagement or as appropriate, since no "objective truth" exists, see the critique of Fukuyama, 2022) blur the lines to essentially identify a liar (who conceives the truth) or a bullshitter (who is indifferent towards the truth).

The present research is not without limitations that should be addressed in future research aiming at deepening our understanding of the phenomenon of bullshitting. First, the current research investigated the social factors that influence the ability to detect bullshit. While these factors provide valuable insights, it is essential for future research to delve deeper into other important variables, particularly cognitive and metacognitive factors (Littrell & Fugelsang, 2024). These factors may play a crucial role in shaping how individuals assess and interpret information, thus impacting their bullshit detection skills. Additionally, adopting a more integrated approach that incorporates personality-based perspectives could significantly enrich our understanding of this phenomenon. Secondly, the current research was conducted in English, which may have introduced a linguistic bias that comprehension, interpretation and limits its applicability to populations outside of English-speaking regions. Additionally, due to the absence of manipulation checks in Study 2 and Study 3, we could not be certain that the participants understood the conditions as intended. Given the results of the manipulation check of Study 1, participants may not have read or understood the information. Therefore, the results may not accurately reflect reality. Addressing this limitation in future research could enhance the robustness and credibility of the conclusions from the research.

Thirdly, the current research focused on the insidious nature of bullshit and its serious repercussions. Future research should aim to identify the circumstances under which bullshit is most likely to occur and develop and test effective strategies to mitigate its adverse effects.

Moreover, conversational bullshit tends to be quite distinct from pseudo-profound bullshit (Frankfurt, 2005; Littrell & Fugelsang, 2024). As a result, the ways people receive and recognise these two types of bullshit may be influenced by various factors unique to each. Provisioning for research methods which cater for both conversational and pseudo-profound bullshit will give valuable insights and further our understanding of this phenomenon.

Fourthly, since all three studies were conducted online, participants might have faced various distractions that could have affected their concentration and engagement with the research. Additionally, we had no means of determining if the participants completed the research independently or not. Future research might benefit from being conducted in a more controlled setting. Likewise, the name “Kopano” might be perceived as belonging to a specific ethnic or social group, which could influence participants' responses based on their own membership and biases. Future research should consider using neutral names to ensure that they are not influenced by cultural biases. In Experiment 3, there was no pre-test or manipulation check about the source's perceived status or group membership. Lastly, the small sample size in Study 3 may have affected the internal validity of our findings. Future research should replicate the study with a larger sample and include a manipulation check to validate the interaction effects between social status and group membership.

Notwithstanding these limitations, the present research contributes to the understanding of deceptive communication by exploring the nuanced distinctions between the act of bullshitting and the act of lying. The exploration of misinformation, particularly in the context of “bullshit” and “lies”, reveals significant insights into how individuals perceive and react to deceptive information. The current research underscores the pervasive challenge of misinformation in contemporary society, where the differentiation between truth and falsehood is becoming progressively obscured. This phenomenon requires critical inquiries regarding the implications of bullshit for public discourse and individual behaviour.

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SUPPLEMENTARY MATERIAL

Participant Information and Consent Form: Study 1

Ethics clearance reference number: CA4_13022024_CRECHS_2024

Research permission reference number (if applicable): CREC:66181518_CRECHS_2023).

Title: **“THE INSIDIOUS BULLSHIT HYPOTHESIS: EVALUATING THE SOCIAL PERCEPTIONS OF BULLSHIT VS. LYING”.**

Dear Prospective Participant

My name is Siphokazi Mtengwana and I am a Master’s student at the Department of Psychology under the supervision of Professor Kitty Dumont. We are inviting you to participate in a study that is investigating why some individuals fall for misinformation.

WHAT IS THE PURPOSE OF THE STUDY?

The study aims at investigating the personality and the psychological underpinnings of why individuals fall for misinformation.

WHY AM I BEING INVITED TO PARTICIPATE?

You have been selected to participate in this study as you form part of the target group of Unisa psychology students. As previous studies addressing bullshit or misinformation were conducted with students, it is preferable to conduct follow-up studies with a similar group (university students) to ensure the comparability of results. Furthermore, as we need rather large sample sizes to be able to apply advanced statistical procedures, we must choose an accessible target group.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

You will be presented with a link that leads you to the next pages where various information, statements, and questions will be presented to you. Your task is to read the information carefully and to answer these statements by clicking on the appropriate answer(s) provided. Please respond as honestly as possible.

The study will take approximately 10 minutes to complete.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participation in this study is entirely voluntary, and you may withdraw at any given moment without any consequences.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

As misinformation can have severe consequences, it is important to understand how it is produced and populated. Therefore, as a participant in this study, you are contributing to the knowledge and understanding of the social and psychological aspects of misinformation and how to limit it in our daily lives.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

To our knowledge, there are no risks or inconveniences involved in participating in this study. However, Prof Kitty's email address dumonkb@unisa.ac.za will be provided in case any participants have any issues related to the study.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

Because we use an internet platform on which our questionnaire is uploaded, no personal information will be asked or uploaded. More specifically, data will only be analysed at a group level (e.g., females, age groups) for scientific purposes (e.g., MA dissertation, publication in scientific journals).

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

During the project period, the data will be stored on my workstation. Data are also stored using OneDrive for backup. The computer and backup will be password secured.

WILL THE DATA BE SHARED WITH OTHERS?

There is an ethical agreement among social psychologists to share their data. After completion of data analyses but before submission of the manuscript, the data will be uploaded to a project page on the public repository Open Science Framework (osf.io).

Datasets will be stored on a server located in Frankfurt am Main, Germany. The data will be licensed through CC-By Attribution 4.0 International, allowing sharing and re-using of the dataset with the acknowledgement of the original author. Again, please keep in mind that no information is recorded in the data by which you could be personally identified.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

No incentives will be offered.

HAS THE STUDY RECEIVED ETHICS APPROVAL?

The research was reviewed and approved by the Unisa Research Ethics Review Committee.

WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

Because we are not recording any personal information about you, we will not be able to contact you about the results of the research project. However, we will refer to any publication related to this research project on the home page of the Department of Psychology under the name of my supervisor: Prof Kitty Dumont.

Should you have any concerns about how the research has been conducted, you may contact the University's Toll-Free Hotline at 0800 86 96 93.

Thank you for taking the time to read this information sheet and for participating in this study.

If you would like to participate in our study, you need to consent to the following:

1. I have carefully read all information provided.
2. I understand all information provided.

I consent

I do not consent

Debriefing and thank you message: Study 1

You have reached the end of this study. Thank you so much for your time and effort!

We informed you in the introduction that this study focused on the psychological underpinnings of why individuals fall for misinformation. This was only one part. We were actually interested in whether the information we provided to you made you more likely to fall for misinformation. Because this is an experimental study where different participants received different information, we could not be up-front with you right from the beginning. Your answers will remain completely anonymous, and all information will be treated confidentially. Results will only be analysed and reported at a group level for scientific purposes (e.g., MA dissertation, publication in scientific journals).

Participant Information and Consent Form: Study 2

Ethics clearance reference number: CA4_13022024_CRECHS_2024

Research permission reference number: CREC: 66181518_CRECHS_2023).

Title: “THE INSIDIOUS BULLSHIT HYPOTHESIS: EVALUATING THE SOCIAL PERCEPTIONS OF BULLSHIT VS. LYING”.

Dear Prospective Participant

My name is Siphokazi Mtengwana and I am a Master’s student at the Department of Psychology under the supervision of Professor Kitty Dumont. We are inviting you to participate in a study that is investigating why some individuals fall for misinformation.

WHAT IS THE PURPOSE OF THE STUDY?

The study aims at investigating the personality and the psychological underpinnings of why individuals fall for misinformation.

WHY AM I BEING INVITED TO PARTICIPATE?

You have been selected to participate in this study as you form part of the target group of Unisa psychology students. As previous studies addressing bullshit or misinformation were conducted with students, it is preferable to conduct follow-up studies with a similar group (university students) to ensure the comparability of results. Furthermore, as we need rather large sample sizes to be able to apply advanced statistical procedures, we must choose an accessible target group.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

You will be presented with a link that leads you to the next pages where various information, statements, and questions will be presented to you. Your task is to read the information carefully and to answer these statements by clicking on the appropriate answer(s) provided. Please respond as honestly as possible.

The study will take approximately 10 minutes to complete.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participation in this study is entirely voluntary, and you may withdraw at any given moment without any consequences.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

As misinformation can have severe consequences, it is important to understand how it is produced and populated. Therefore, as a participant in this study, you are contributing to the knowledge and understanding of the social and psychological aspects of misinformation and how to limit it in our daily lives.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

To our knowledge, there are no risks or inconveniences involved in participating in this study. However, Prof Kitty's email address dumonkb@unisa.ac.za will be provided in case any participants have any issues related to the study.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

Because we use an internet platform on which our questionnaire is uploaded, no personal information will be asked or uploaded. More specifically, data will only be analysed at a group level (e.g., females, age groups) for scientific purposes (e.g., MA dissertation, publication in scientific journals).

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

During the project period, the data will be stored on my workstation. Data are also stored using OneDrive for backup. The computer and backup will be password secured.

WILL THE DATA BE SHARED WITH OTHERS?

There is an ethical agreement among social psychologists to share their data. After completion of data analyses but before submission of the manuscript, the data will be uploaded to a project page on the public repository Open Science Framework (osf.io).

Datasets will be stored on a server located in Frankfurt am Main, Germany. The data will be licensed through CC-By Attribution 4.0 International, allowing sharing and re-using of the dataset with the acknowledgement of the original author. Again, please keep in mind that no information is recorded in the data by which you could be personally identified.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

No incentives will be offered.

HAS THE STUDY RECEIVED ETHICS APPROVAL?

The research was reviewed and approved by the Unisa Research Ethics Review Committee.

WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

Because we are not recording any personal information about you, we will not be able to contact you about the results of the research project. However, we will refer to any publication related to this research project on the home page of the Department of Psychology under the name of my supervisor: Prof Kitty Dumont.

Should you have any concerns about how the research has been conducted, you may contact the University's Toll-Free Hotline at 0800 86 96 93.

Thank you for taking the time to read this information sheet and for participating in this study.

If you would like to participate in our study, you need to consent to the following:

- 1. I have carefully read all information provided.**
- 2. I understand all information provided.**

I consent

I do not consent

Debriefing and thank you message: Study 2

You have reached the end of this study. Thank you so much for your time and effort!

We informed you in the introduction that this study focused on the psychological underpinnings of why individuals fall for misinformation. This was only one part. We were actually interested in whether the information we provided to you made you more likely to fall for misinformation. Because this is an experimental study where different participants received different information, we could not be up-front with you right from the beginning. Your answers will remain completely anonymous, and all information will be treated confidentially. Results will only be analysed and reported at a group level for scientific purposes (e.g., MA dissertation, publication in scientific journals).

Consent form and participant information: Study 3

Ethics clearance reference number: CA4_13022024_CREC-CHS_2024

Research permission reference number: CREC:66181518_CREC_CHS_2023).

Title: “THE INSIDIOUS BULLSHIT HYPOTHESIS: EVALUATING THE SOCIAL PERCEPTIONS OF BULLSHIT VS. LYING”.

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The study will take approximately 10 minutes to complete.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

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WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

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HAS THE STUDY RECEIVED ETHICS APPROVAL?

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- 1. I have carefully read all information provided.**
- 2. I understand all information provided.**

I consent

I do not consent

Debriefing and thank you message: Study 3

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