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Bypassing Versus Correcting Misinformation: Efficacy and Fundamental Processes

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The standard method for addressing the consequences of misinformation is the provision of a correction in which the misinformation is directly refuted. However, the impact of misinformation may also be successfully addressed by introducing or bolstering alternative beliefs with opposite evaluative implications. Six preregistered experiments clarified important processes influencing the impact of bypassing versus correcting misinformation via negation. First, we find that, following exposure to misinformation, bypassing generally changes people's attitudes and intentions more than correction in the form of a simple negation. Second, this relative advantage is not a function of the depth at which information is processed but rather the degree to which people form attitudes or beliefs when they receive the misinformation. When people form attitudes when they first receive the misinformation, bypassing has no advantage over corrections, likely owing to anchoring. In contrast, when individuals focus on the accuracy of the statements and form beliefs, bypassing is significantly more successful at changing their attitudes because these attitudes are constructed based on expectancy-value principles, while misinformation continues to influence attitudes after correction. Broader implications of this work are discussed.

Public Significance Statement

Combating the effects of misinformation is vital for the public, politicians, and behavioral scientists. The gold standard for tackling misinformation is a correction that factually contradicts the misinformation. However, recent research has called attention to bypassing misinformation—highlighting beliefs with opposite evaluative implications relative to the misinformation without directly addressing it—as a possible way of changing attitudes and behavioral intentions. Building on evidence suggesting that bypassing is as effective as correction in attenuating the influence of misinformation on attitudes and intentions, the current research tested whether bypassing can be superior to correction via negation and shed light on the psychological processes that maximize the impact of bypassing. Across six preregistered experiments, we find evidence that bypassing can generally be superior to correction via simple negation. Moreover, we show that this advantage is present when people are focused on forming beliefs, but not attitudes, about the information they read.

Keywords: misinformation, correction, bypassing, attitudes, beliefs

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It only takes one look at the news to realize that the world faces various serious threats, with misinformation being among those that concern citizens around the world (Pew Research Center, 2022). This concern stems from the presumed influence of misinformation on behavior. Indeed, high-ranking figures in the government of the United States and international organizations like the World Health Organization have warned about the link between misinformation and socially detrimental behavior (Murthy, 2021; World Health

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Organization, 2022; cf. Adams et al., 2023; Altay et al., 2023). The perceived threat of misinformation has mobilized behavioral scientists to understand relevant cognitive processes and minimize its impact. Significant advances have included elucidating how to best correct misinformation (Ecker et al., 2022; Johnson & Seifert, 1994; Lewandowsky et al., 2020; Schwarz et al., 2007; Wilkes & Leatherbarrow, 1988), as well as how to preemptively inoculate recipients to resist misinformation they have yet to encounter (Compton et al., 2021; McGuire & Papageorgis, 1961; van der Linden et al., 2017). A more recently advocated approach, however, has been to "bypass" misinformation and introduce different, nonmutually exclusive beliefs whose implications are opposite to that of the conclusion of the misinformation, thereby reducing the impact of the misinformation without directly confronting it. Up to this point, however, bypassing has only been shown to be as effective as corrections for changing attitudes and intentions shaped by misinformation (Calabrese & Albarracín, 2023). In contrast, the research we report in this article aimed to uncover potential advantages of bypassing to deal with misinformation and the mechanisms through which such an advantage operates. These processes are important to achieving a more complete understanding of the cognitive dynamics of belief change. Importantly, such knowledge has the potential to inform strategies that are important for social, cognitive, educational, health, and environmental psychology, in addition to the behavioral and social sciences more generally.

Misinformation and Corrections

When the public has been exposed to misinformation, those seeking to change resulting misconceptions and the attitudes, intentions, and behaviors associated with them face important decisions. Although misinformation may be addressed by highlighting logical fallacies or undermining the source's credibility, providing *fact-based* corrections is a prominent, popular, and necessary course of action (e.g., Ecker et al., 2022; Lewandowsky et al., 2020). In a sweeping meta-analysis of the correction literature, Chan et al. (2017) found a large "debunking" effect, such that providing a correction led to a significant attenuation of the influence of misinformation on people's beliefs and attitudes (ds = 1.14–1.33). Other meta-analyses have found medium-sized average debunking effects (r = .35; Walter & Murphy, 2018). A related meta-analysis focusing specifically on science-relevant misinformation found that the average debunking effect was not statistically different from zero (d = 0.19; Chan & Albarracín, 2023), suggesting that corrections may be differentially effective across domains.

Importantly, however, even when corrections find success, they are no magic bullet: Misinformation continues to exert its influence on judgment even following a correction ("the continued influence effect of misinformation"; ds = 0.75–1.06), an effect that is larger when recipients were led to generate arguments in support of the misinformation (see C. A. Anderson et al., 1980). For instance, misinformation continues to influence inferential judgments when it comprises a series of brief statements that are later corrected (Johnson & Seifert, 1994; Seifert, 2014; Wilkes & Leatherbarrow, 1988). Corrections have also been shown to be unable to eliminate the influence of misinformation on people's attitudes, as is the case when misinformation about a political candidate continues to exert an influence on evaluations of a candidate even after the provision of a correction (Nyhan et al., 2020; Thorson, 2016). Moreover, although such effects are rare (e.g., Swire-Thompson et al., 2022), corrections of misinformation can sometimes backfire (i.e., lead to an increase in the belief of misinformation), as is the case when the source of the correction belongs to the political outgroup (Reinero et al., 2023). Beyond continued influence and backfire effects, recent evidence indicates that corrections can increase skepticism about accurate information (Hoes et al., 2024), suggesting that the limitations of corrections extend beyond their efficacy in eliminating the effect of misinformation. In sum, although corrections can attenuate the impact of misinformation, they suffer from limitations that highlight the need to expand our knowledge about alternatives to combat misconceptions.

Bypassing

A relatively new way of addressing misinformation is referred to as *bypassing*—a response to misinformation (e.g., "genetically modified foods have health risks," which has a negative implication) that introduces or bolsters nonmutually exclusive alternative beliefs with opposite evaluative implication to that of the misinformation (e.g., "genetically modified foods help the bee population," which has a positive implication). In contrast to attempts at directly contradicting misconceptions, bypassing recognizes that beliefs do not exist in isolation. Expectancy-value models (Fishbein, 1963; Rosenberg, 1956) and information integration theory (N. H. Anderson, 1981) propose that multiple beliefs influence attitudes toward a particular issue or behavior. To take just one example, Fishbein's expectancy-value model conceptualizes attitudes as a collection of salient beliefs that an outcome will occur (b_i, $i = 1, \ldots, p$) and the evaluative implications of that outcome (e_i, $i = 1, \ldots, p$). Thus, a person is more likely to have a positive attitude toward vaccination if they believe that vaccinating will lead to positive outcomes (e.g., giving you peace of mind) and prevent negative outcomes (e.g., preventing illness). Expressed formally, Equation 1 is as follows,

$$A_B = \Sigma b_i e_i, \tag{1}$$

where A_B is the attitude toward performing behavior B, b_i is the strength of the belief that performing behavior B leads to outcome i, e_i is the evaluation of outcome i, and p is the number of outcomes salient for a particular person or population. In general, the models referenced above imply that when one is interested in changing attitudes, introducing other beliefs may be as effective—and perhaps sometimes more so—than attempting to change a specific belief by arguing against it. Importantly, attitudes are an essential target for those seeking to attenuate the impact of misinformation because they can be more robust predictors of behavior than beliefs (e.g., Albarracín et al., 2024; Sheeran et al., 1999). Thus, bypassing may be a helpful alternative if it can change attitudes impacted by misinformation more effectively than correction.

Recent research has supported the efficacy of bypassing for addressing misinformation. In a series of between-subjects experiments performed by Calabrese and Albarracín (2023), bypassing was as effective as a correction in attenuating the impact of misinformation on policy attitudes and behavioral intentions. For example, participants

in one experiment first read a narrative promoting misinformation about the adverse health effects of genetically modified (GM) foods. They were then randomly assigned to read either (a) an unrelated narrative (the misinformation control condition), (b) a fact-based correction narrative (correction condition), or (c) a bypassing narrative highlighting the benefits of GM foods for bees (bypassing condition). Another set of participants read two messages unrelated to the topic of GM foods (true control condition). As expected, those in the misinformation control condition had more positive attitudes toward the policies aimed at restricting the use of GM foods and stronger intentions to support such policies relative to the true control condition. In addition, consistent with a successful debunking effect, participants in the correction condition had significantly less favorable attitudes toward restrictive GM food policies and weaker intentions to support them than those in the misinformation control condition. Notably, however, participants in the bypassing condition also showed significantly less positive attitudes toward GM food restrictive policies and weaker intentions to support them than those in the misinformation control condition. Last, the bypassing and correction conditions did not differ in either key outcome (Calabrese & Albarracín, 2023), suggesting that the efficacy of bypassing in attenuating the impact of misinformation is on par with that of correction.

Other work has also sought to combat misinformation indirectly, showing that belief in misinformation can be decreased via boosts in the cognitive accessibility of related accurate information. Vlasceanu and Coman (2018) first asked participants to rate the accuracy and scientific support associated with a series of statements that spanned several categories, with some of the statements being accurate and some inaccurate. Under the cover story of monitoring another participant's performance, people heard a recording that mentioned only certain accurate statements from a select number of categories. Participants then recalled as many statements as possible and rated their believability and accuracy again. Across two experiments, hearing a recording repeat factual statements (e.g., "children who spend less time outdoors are at greater risk to develop myopia") was associated with a decrease in participants' ability to recall misinformation that belonged to the same category (as well as other accurate information; e.g., "reading in dim light can damage children's eyes") relative to unrelated statements (e.g., "crying helps babies' lungs develop"). Notably, such retrieval-induced forgetting was accompanied by a decrease in the believability of the misinformation (Vlasceanu & Coman, 2018). When considered in conjunction with the research reviewed above, converging lines of evidence suggest that misinformation can be profitably tackled without ever mentioning it. Notably, however, the work by Calabrese and Albarracín (2023) on bypassing has focused on variables like attitudes and behavioral intentions that go beyond the misinformation belief itself.

Although the above findings suggest that bypassing holds promise in combating misinformation, research on this topic remains in its infancy. One important question is whether bypassing misinformation can be superior to correcting it in certain situations, and if so, what psychological processes give rise to such an advantage. The current research thus adopted a novel perspective relative to prior work. To begin, Calabrese and Albarracín relied on a relatively inefficient between-subjects design that might have been inadequate to detect the possible advantage of bypassing. In contrast, we developed a more efficient within-subjects paradigm to study this critical problem. The within-subjects paradigm also allowed us to study a different situation in which people may be exposed to misinformation: the consumption of short news headlines. The brief nature of the headline stimuli used in our research limited us to delivering corrections in the form of simple negations, as opposed to lengthier, detailed corrections and refutations. Reviews of the literature provide strong evidence that detailed corrections and refutations are significantly more effective than simpler negations (Chan et al., 2017; Lewandowsky et al., 2020). That said, simple corrections can be as effective as more detailed ones in specific contexts, such as social media (Martel et al., 2021; Walter et al., 2021; Zeng et al., 2024).

In addition to using a more powerful design and a different information consumption environment, this research addressed two important process questions. The first is whether bypassing is particularly advantageous when people's depth of processing prevents them from adequately processing a correction. Because processing information that contains negation—a crucial element of corrections—requires more effortful processing (Dudschig & Kaup, 2020), people with lower levels of cognitive ability may adjust their attitudes to a lesser extent following a correction (De Keersmaecker & Roets, 2017). Thus, it is important to determine if general processing motivation and ability affect the extent to which bypassing is effective relative to a correction.

Another critical question is the extent to which forming beliefs or attitudes while processing misinformation influences the impact of bypassing on attitudes or behavioral decisions. In their seminal 1986 article, Hastie and Park distinguished between online and memory-based judgments. Some situations prompt the formation of a judgment—such as an attitude—only when such a judgment is requested or necessary. Applying this to the context of misinformation, individuals may receive misinformation about GM foods causing allergic reactions and form beliefs based on the misinformation but not proceed to form an attitude until the construction of the attitude is requested. If a person then encounters a bypassing message highlighting the benefits of GM foods for the bee population, they will also form a belief based on this information. When people form an attitude under these circumstances, the principles of expectancy-value models (Fishbein, 1963; Fishbein & Ajzen, 1975, 2010) are expected to apply, in which beliefs are integrated to form an attitude. By contrast, if a person encounters a correction of the misinformation instead of a bypassing message, they must activate the misinformation from memory and adjust their mental model for the correction to be successful (Prike & Ecker, 2023). Importantly, because misinformation is known to have a continued influence effect on attitudes (Lewandowsky et al., 2012; Thorson, 2016), we predict that bypassing will be better at changing attitudes based on misinformation.

In other situations, people may form attitudes when they first receive misinformation. For example, somebody may form negative attitudes toward GM foods when they first read about an associated negative outcome, such as cancer. Under such circumstances, the attitudinal impact of bypassing and correction could be similar because the initial attitude is an anchor for judgment (Jacoby et al., 2002; Reed et al., 2002). This anchoring implies that the initially formed attitudes may be reported again, either as they were or combined with the evaluative implications of the new information, be that correction or bypassing.

Overview

The research we report in this article first developed a within-subjects paradigm using brief statements—one that has been used profitably in other research on misinformation (e.g., Brashier et al., 2021). Understanding bypassing processes in reading brief news headline-like statements is important because people often rely on headlines when consuming news. For instance, one survey found that only four in 10 Americans report reading stories past the headline over the previous week (American Press Institute, 2019). In addition, by using brief messages, we provided within-subjects comparisons of bypassing and correction at the trial level, which increases statistical efficiency and generalizability to different instantiations and valence of messages. However, we supplemented our results with a between-subjects experiment as well.

Experiment 1 explored whether corrections in the form of simple negations and bypassing messages attenuate the impact of an initial headline on people's attitudes and behavioral intentions, both relative to a misinformation control condition and each other. Experiment 2 replicated this initial test through a more focused comparison of the efficacy of correction and bypassing relative to each other. In Experiment 3, we tested whether the amount of information presented (i.e., the number of headlines read) impacted the efficacy of bypassing. Experiment 4 extended this finding by testing how participants' time and motivation to process the headlines affect the success of bypassing relative to correction. Experiment 5 manipulated how the misinformation was processed by instilling either (a) an accuracy goal in which people focused on judging whether a claim was true (belief-formation condition) or (b) an attitude formation goal in which they focused on judging whether the focal object was good or bad (attitude formation condition). The impact of bypassing versus control messages was compared across those two conditions and to a control condition in which no processing goal was introduced. Last, Experiment 6 tested whether bypassing retains its advantage over bypassing when using real-world stimuli and a between-subjects design.

Transparency and Openness

The university's institutional review board reviewed and exempted all experimental procedures. Participants, all of whom were recruited through the Prolific platform (https://www.prolific.com), provided informed consent before commencing the experiments. All experiments reported in this article were preregistered. All measures, manipulations, exclusions, and links to preregistration documents are reported within each experiment. Materials, data, and syntax files for all experiments can be retrieved online at https://osf.io/yan7g/?view_only=5a90f59214eb48d2ae6dd0d0ae0510dc.

Experiment 1

Method

Participants

Our preregistration document specified a two-stage data collection plan (Wave 1 $N = 300$, Wave 2 $N = 100$) in which we controlled Type I error rate through sequential analyses (Lakens & Evers, 2014), which yielded α boundaries for the two potential analyses of .038 and .029 (https://aspredicted.org/M9B_LYP). Both waves of data were collected. In total, 398 Prolific workers participated in this experiment in exchange for payment. Per our preregistered criteria, one participant was excluded for responding incorrectly to a simple attention check item ("Please select 'A lot' for this question from the response options below"). Our final sample consisted of 397 participants (gender: 176 male, 216 female, five nonbinary or gender-fluid; race: 79.3% White, 10.1% Black or African American, 5.1% Asian, 1.0% American Indian or Alaska Native, 0.5% Native Hawaiian or other Pacific Islander, 2.0% not listed, 2.0% multiracial; ethnicity: 7.1% identified as Hispanic; age [years]: $M = 38.33$, $SD = 13.12$). A sample of this size provided 80% power to detect an effect as small as $d = 0.14$ between any two within-subjects conditions.

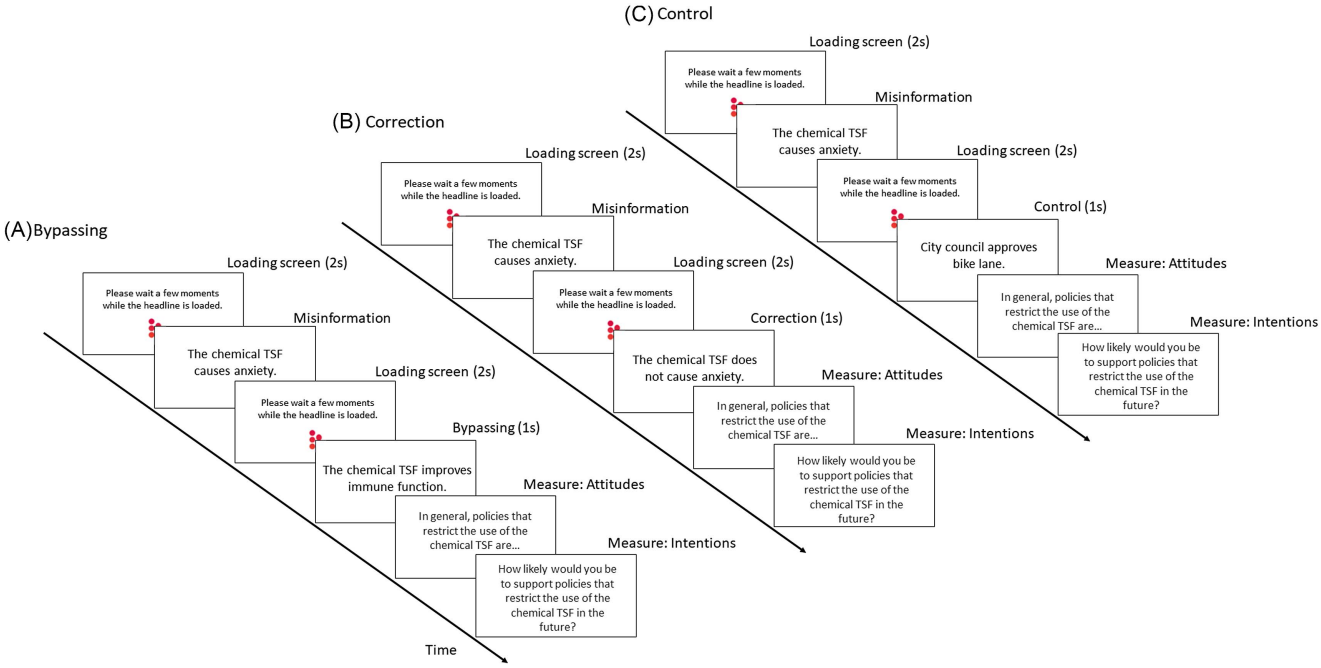
Design, Procedure, Materials, and Measures

Experiment 1 employed a solely within-subjects design. To test the relative efficacy of bypassing and corrections in the context of reading news headlines, we engineered a task in which participants read brief statements about the effects of fictitious chemicals, nutritional supplements, and home goods (four of each kind; hereinafter referred to as "focal objects") they believed to be news headlines. These headlines implied that the focal objects were either good or bad and were crafted to reflect the kinds of claims made about such products by those who spread misinformation. After being exposed to misinformation, participants read either a correction as a simple negation, a bypassing message, or an unrelated statement. Notably, we attempted to recreate a situation in which people would encounter misinformation in news headlines but not process subsequent messages (i.e., corrections or bypassing messages) deeply. Participants were told their responses to the headlines were anonymous, and they would not be asked to defend them. Moreover, they read the misinformation headlines at their own pace but were given 1 s to read the second statement, after which the page automatically advanced.

Figure 1 visually represents the procedure of a single trial of the news headline task. Each trial proceeded as follows: Participants first saw a loading screen and then read a statement that served as misinformation. The initial misinformation consisted of six positively and six negatively valenced statements. For example, a participant may first read the negatively valenced misinformation statement, "The chemical TSF causes anxiety." In the other half of trials, participants read positively valenced misinformation: "The food additive vernabol reduces the price of food." After reading the misinformation, participants read either a correction that countered the implication of the misinformation via a simple negation ("The chemical TSF does not cause anxiety" for the negatively valenced misinformation, "The food additive vernabol does not reduce the price of food" for the positively valenced misinformation), a bypassing message that highlighted opposing properties of the chemical in question ("The chemical TSF reduces the price of goods" for the negatively valenced misinformation, "The food additive causes water waste" for the positively valenced misinformation), or an unrelated message (e.g., "City council approves new bike lane"). In total, participants read four of each kind of follow-up message (four correction, four bypassing, and four misinformation control headlines). The misinformation, correction, and bypassing headlines were pretested and matched according to the extremity of their valence. At the end of each trial, participants reported their

Figure 1

Visual Representation of a Single Trial of the News Headline Task



Note. In all trials, participants first saw a loading screen and then a piece of misinformation. After reading the misinformation, participants once again saw a loading screen and were randomly presented either a bypassing (Panel A), correction (Panel B), or control message (Panel C). Last, attitudes and intentions toward policies relevant to the focal object were assessed. TSF = fictitious chemical. See the online article for the color version of this figure.

attitudes toward policies restricting the use of the focal object (i.e., the chemical TSF) and their intentions to support such policies.

Restrictive Policy Attitudes. Following the work of Calabrese and Albarracín (2023), we measured attitudes toward policies aimed at restricting the use of the objects in question (e.g., the chemical TSF). Participants reported their attitudes toward restrictive policies ("In general, policies that restrict the use of the chemical TSF are") using three 7-point semantic differential scales with the adjectives *bad–good, unhelpful–helpful, and negative–positive* anchoring response options that ranged from −3 to +3. For focal objects associated with negative initial misinformation, more positive attitudes toward restrictive policies indicate a stronger effect of the initial misinformation. For objects associated with positive initial misinformation, more negative attitudes toward restrictive policies indicate a stronger effect of the initial misinformation. For the purposes of statistical analysis, attitudes toward restrictive policies were scored such that higher numbers indicated a stronger effect of the initial misinformation. In other words, lower scores indicated that a given intervention was more successful at attenuating the impact of misinformation. Accordingly, attitudes toward restrictive policies for objects associated with positive initial misinformation were reverse-scored. Once all relevant items were reverse-scored, responses for each trial were averaged and then averaged across trials of the same kind (bypassing, correction, and misinformation control) to form an attitude composite. This measure showed good internal consistency ($\alpha = .89$).

Restrictive Policy Support Intentions. In addition to attitudes, we assessed intentions to support policies related to the focal object. Intentions to support restrictive policies ("How likely would you be to support policies that restrict the use of the chemical TSF in the future?") were assessed using a single item via a 5-point scale anchored by the endpoints of 1 (*not at all likely*) to 5 (*very likely*). Consistent with the scoring of the attitude measure, intentions were scored such that higher numbers indicated a stronger effect of the initial misinformation, and lower numbers indicated greater efficacy at combating misinformation. For objects associated with negative initial misinformation, stronger intentions to support restrictive policies indicate a stronger effect of the initial misinformation. Accordingly, intentions to support restrictive policies for objects associated with positive initial misinformation were reverse-scored. We averaged over multiple trials of the same condition, which resulted in a measure with acceptable internal consistency ($\alpha = .73$).

Results

To test our hypothesis that bypassing may be more beneficial than correction, we conducted a repeated-measures analysis of variance (ANOVA) with planned contrasts using the IBM SPSS Statistics program (V. 28). As seen in Table 1, both correction via simple negation and bypassing were successful at attenuating the impact of the initial misinformation. When compared to misinformation control trials, correction and bypassing messages both led to more negative attitudes toward restrictive policies and weaker intentions to provide support for such policies. Importantly, however, bypassing was significantly better at attenuating the impact of

Table 1
Results of Analyses of Variance and Planned Contrasts for Experiment 1 (N = 397)

Outcome	Trial type: Bypassing *M* (*SD*)	Correction *M* (*SD*)	Control *M* (*SD*)	*F*(2, 792)	*p*	η^2
Omnibus test and descriptive statistics						
Attitudes toward restrictive policies	−0.05 (0.82)	0.10 (0.64)	0.94 (1.10)	140.84	<.001	.26
Intentions to support restrictive policies	2.99 (0.64)	3.06 (0.75)	3.62 (0.79)	79.42	<.001	.17

Outcome	Contrast	*t*	*p*	*d*
Planned contrasts				
Attitudes toward restrictive policies	Bypassing versus correction	−2.97	.003	−0.15
	Bypassing versus control	−13.70	<.001	−0.69
	Correction versus control	−13.21	<.001	−0.66
Intentions to support restrictive policies	Bypassing versus correction	−1.37	.17	−0.07
	Bypassing versus control	−11.34	<.001	−0.57
	Correction versus control	−9.85	<.001	−0.49

misinformation on attitudes toward restrictive policies relative to correction (see Figure 2, Panel A). However, there was no significant difference in the efficacy of bypassing relative to correction with regard to intentions to support restrictive policies (see Figure 2, Panel B). Weaker effects on intentions are to be expected given that intentions are often a downstream consequence of attitudes (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 2010).

Discussion

Consistent with our predictions, both corrections in the form of simple negations and bypassing messages successfully attenuated misinformation's impact on policy attitudes and support intentions. These findings provide a conceptual replication of the work of Calabrese and Albarracín (2023), in which the bypassing technique was shown to be as effective as correction at attenuating the impact of misinformation. Notably, however, Experiment 1 employed a powerful within-subjects paradigm using headline-like statements, demonstrating that bypassing changed attitudes more so than correction.

To provide a more focused test of the relative efficacy of bypassing and correction, we replicated Experiment 1 that omitted misinformation control trials. This change in design enabled us to collect more data on the impact of correction and bypassing, which afforded greater statistical power via the provision of more sensitive measures.

Experiment 2

Method

Participants

Our preregistration document specified a two-stage data collection plan (Wave 1 $N = 50$, Wave 2 $N = 150$) in which we controlled the Type I error rate through sequential analyses (Lakens & Evers, 2014). The α boundaries for the two potential analyses were .012 and .04 (https://aspredicted.org/6KJ_13F). We executed both planned waves of data collection. In total, 199 Prolific workers participated in this experiment in exchange for payment. As outlined in our preregistration document, we excluded one participant from the substantive analyses for responding incorrectly to a simple attention check item (see Experiment 1). The final sample consisted of 198 participants (gender: 65 male, 130 female, three nonbinary or gender fluid; race: 78.8% White, 8.1% Black or African American, 4.5% Asian, 1.0% American Indian or Alaska Native, 0.3% Native Hawaiian or other Pacific Islander, 2.3% not listed, 5.3% multiracial; ethnicity: 5.6% identified as Hispanic; age [years]: $M = 36.88$, $SD = 14.41$). A sample of this size afforded 80% power to detect an effect as small as $d = 0.20$ between our two within-subjects conditions.

Design, Procedure, Materials, and Measures

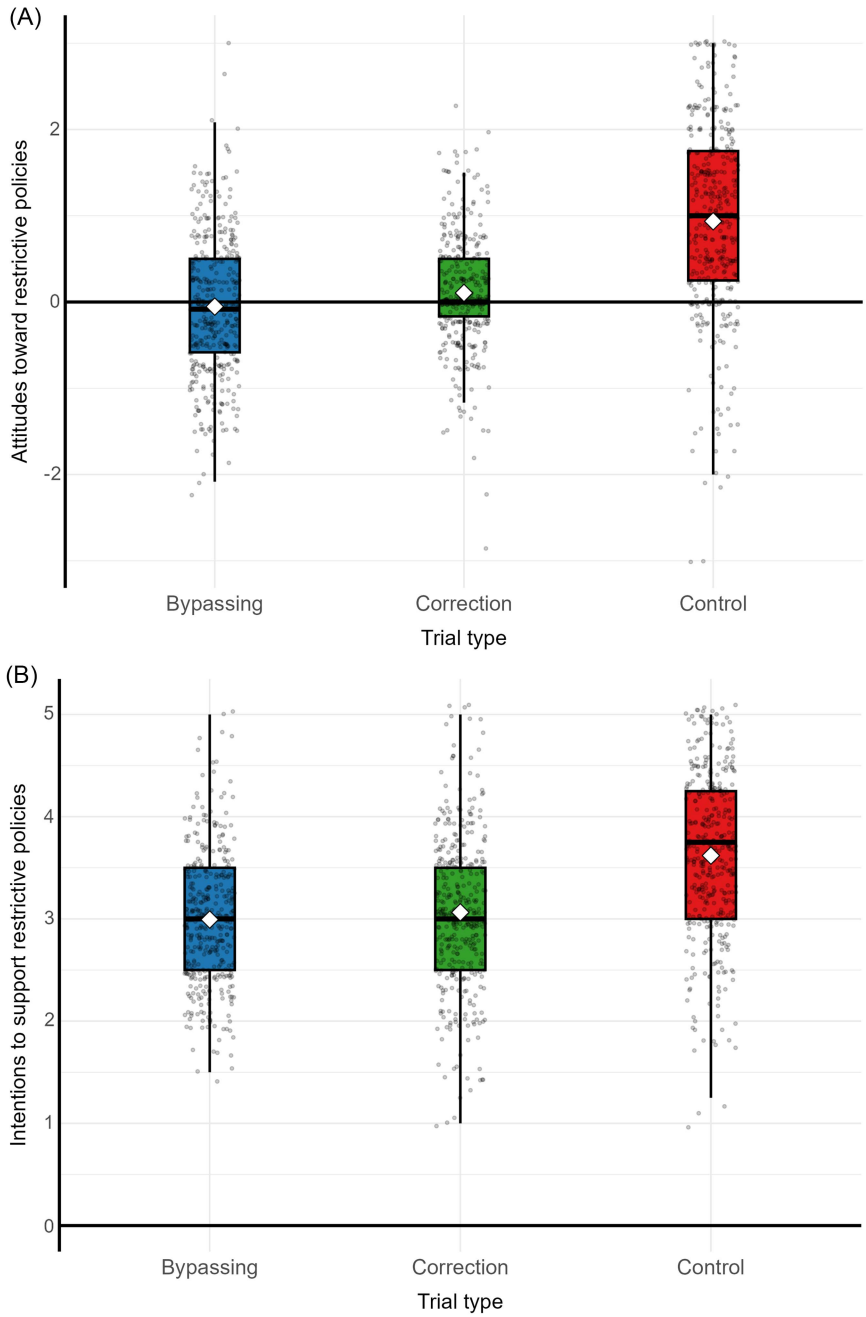
As in the prior experiment, Experiment 2 employed a within-subjects design. The aim of Experiment 2 was to provide a more focused test of the relative ability of the bypassing technique to attenuate the impact of misinformation. Accordingly, participants completed the headline-reading task described in Experiment 1, with the only difference being the exclusion of misinformation control trials, which resulted in a higher number of trials per within-subjects condition. That is, participants read an initial statement that served as misinformation, after which they were randomly assigned to read either a correction in the form of a simple negation or a bypassing message. Participants completed 12 trials in total. The initial misinformation consisted of six positively and six negatively valenced statements, followed by either six correction trials or six bypassing trials. Last, attitudes toward restrictive policies and intentions to support such policies once again served as the outcome measures.

Restrictive Policy Attitudes. Restrictive policy attitudes were measured in the same manner described in Experiment 1. Higher values on this measure indicated a stronger effect of the initial misinformation. This measure showed excellent internal consistency (α = .92).

Restrictive Policy Support Intentions. Restrictive policy support intentions were measured in the manner described in Experiment 1. Higher values on this measure indicated a stronger effect of the initial misinformation. This measure showed acceptable internal consistency (α = .79).

Figure 2

Boxplots of Results of Experiment 1



Note. Boxplots showing attitudes toward restrictive policies (Panel A) and intentions to support restrictive policies (Panel B) as a function of trial type (bypassing, correction, control). Higher values indicate stronger effects of misinformation. Each boxplot displays the median (line inside the box), interquartile range (box), and range of the data (whiskers). Diamonds indicate mean values and the associated 95% confidence intervals. Data points are horizontally jittered to reduce overlap. See the online article for the color version of this figure.

Results

Replicating the finding from Experiment 1, a repeated measures t test revealed that bypassing ($M = -0.10$; $SD = 0.74$) led to significantly more negative attitudes toward restrictive policies relative to correction ($M = 0.12$; $SD = 0.53$), $t(197) = 3.52$, $p < .001$, $d = 0.25$ (see Figure 3, Panel A). Similarly, bypassing ($M = 2.90$; $SD = 0.61$) led to significantly weaker intentions to support restrictive policies relative to correction ($M = 3.12$; $SD = 0.62$), $t(197) = 3.34$, $p = .001$, $d = 0.24$ (see Figure 3, Panel B).

Discussion

As in Experiment 1, we found that bypassing can attenuate the impact of initial misinformation better than correction. That is, in the context of reading short headline-like statements, bypassing is better able to change restrictive policy support attitudes and intentions that have been shaped by misinformation.

Having established that bypassing can be superior to correction via simple negation, Experiment 3 investigated possible boundary conditions for this advantage. The news headline task employed in this research and the passage-reading task used by Calabrese and Albarracín (2023) differ in many respects. One key difference, however, is the amount of information about different focal objects participants must process. In the prior work, participants read two articles about the same object (i.e., GM foods). By contrast, the news headline task presented participants with pairs of headlines (one misinformation and one correction or bypassing) about 12 different objects. Given that processing information that contains negation—a crucial element of corrections—requires more effortful processing (Dudschig & Kaup, 2020), the demonstrated advantage of bypassing may be a function of information overload lowering the deliberative processing needed for corrections to be effective in our multiple-headline context. That is, we reasoned that having to process the volume of information associated with reading many headlines might reduce participants' motivation or ability to process the information, thereby reducing the effectiveness of corrections. To test the role of volume of information in producing the advantage of bypassing, participants were randomly assigned to read either only two ("few" trials condition) or all 12 pairs of headlines used in Experiment 2 ("many" trials condition). Specifically, we examined whether the advantage of bypassing observed in changing policy attitudes and intentions would be attenuated when participants read only two pairs of headlines relative to when they read all 12 pairs. Attitudes toward restrictive policies and intentions to support those policies continued to serve as our outcome measures, with the critical contrast between the conditions coming from responses on the two trials in the few trials condition and the last two trials in the many trials condition. After the news headline task, we used self-report measures to assess people's sense of how they processed the information.

Experiment 3

Method

Participants

Following the approach employed in our prior experiments, our preregistration document specified a two-stage data collection plan (Wave 1 $N = 375$, Wave 2 $N = 1{,}125$) in which we controlled the Type I error rate through sequential analyses (Lakens & Evers, 2014). The α boundaries for the two potential analyses were .012 and .04 (https://aspredicted.org/Z63_G7B). Both waves of data were collected. In total, 1,500 Prolific workers participated in this experiment in exchange for payment. One participant was excluded from the substantive analyses for responding incorrectly to a simple attention check item. The final sample consisted of 1,499 participants (gender: 653 male, 817 female, 29 nonbinary or gender-fluid; race: 73.0% White, 11.7% Black or African American, 10.1% 2.7% preferred to self-describe, Asian, 8.1% American Indian or Alaska Native, 0.2% Native Hawaiian or other Pacific Islander, 2.1% not listed, 5.0% multiracial; ethnicity: 12.1% identified as Hispanic; age [years]: $M = 37.40$, $SD = 13.20$). A sample of this size provided us with 80% power to detect a within–between-subjects interaction effect as small as Cohen's $f = 0.07$, the equivalent of $\eta_p^2 = .005$.

Design, Procedure, Materials, and Measures

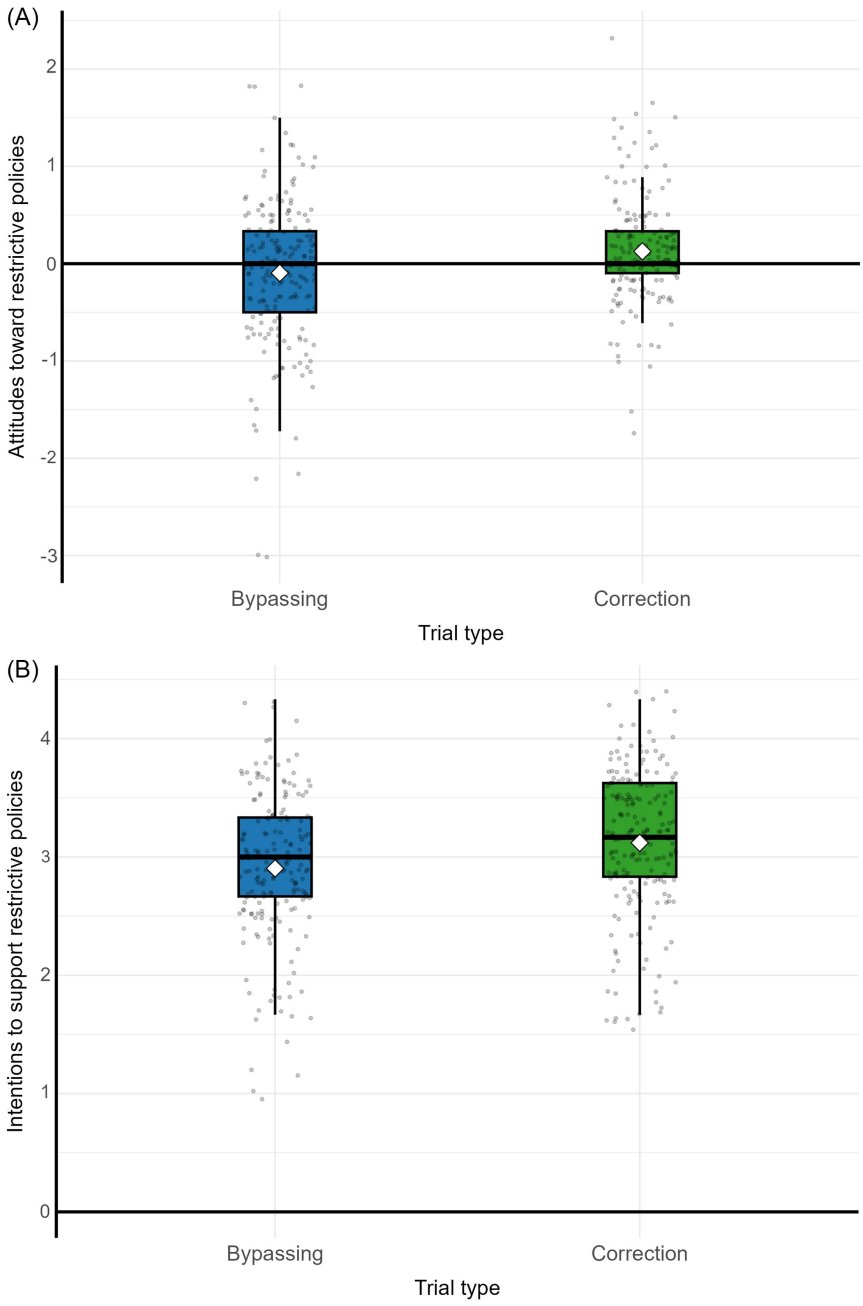
Experiment 3 tested whether the volume of information participants processed moderated the advantage of bypassing observed in the prior experiments. To this end, we employed a within–between experimental design (within-subjects factor: trial type [correction vs. bypassing]; between-subjects factor: volume of information [two trials vs. 12 trials]). Participants were randomly assigned to a version of the news headline task in which they completed either two (few trials condition) or 12 trials (many trials condition). As before, each trial consisted of reading misinformation, a correction via negation or bypassing message, and completing the outcome measures. Participants in the few trials condition were presented with two randomly selected pieces of misinformation (one positively worded and one negatively worded), one followed by a correction and the other by a bypassing message. For participants in the many trials condition, the headline task itself proceeded in the exact manner described in Experiment 2. That is, participants completed 12 trials in total (six of which were positively valenced and six negatively valenced), six followed by a correction and six by a bypassing headline. Attitudes toward restrictive policies and intentions to support those policies continued to serve as our outcome measures. Instead of using responses on all trials for those in the many trials condition, however, we focused only on responses on the last trial of the task and the nearest kind of trial corresponding to the other within-subjects condition. For example, if the last trial of the news headline task provided a correction, we used that trial and the nearest bypassing trial to calculate the outcomes. The rationale for this decision was twofold. First, the cumulative effect of processing information about many objects should be most evident at the end of the task for those in the many trials condition. Second, this decision equated the number of trials and, consequently, the reliability of our measures across between-subjects conditions. At the end of the headline task, participants retrospectively reported their level of cognitive load during the task, among several exploratory measures (see Supplemental Material for details).

Restrictive Policy Attitudes. Restrictive policy attitudes were measured in the same manner described in Experiment 1, except that they were based on two trials. Higher values on this measure indicated a stronger effect of the initial misinformation. This measure showed excellent internal consistency (α = .90).

Restrictive Policy Support Intentions. Restrictive policy support intentions were measured in the manner described in Experiment 1, except that they were based on two trials. Higher values on this

Figure 3

Boxplots of Results of Experiment 2



Note. Boxplots showing attitudes toward restrictive policies (Panel A) and intentions to support restrictive policies (Panel B) as a function of trial type (bypassing and correction). Higher values indicate stronger effects of misinformation. The boxplots display the median (line inside the box), interquartile range (box), and range of the data (whiskers). Diamonds indicate mean values and the associated 95% confidence intervals. Data points are horizontally jittered to reduce overlap. See the online article for the color version of this figure.

measure indicated a stronger effect of the initial misinformation. This measure showed acceptable internal consistency ($\alpha = .83$).

Manipulation Check—Cognitive Load. We assessed the degree to which participants felt under cognitive load through a self-report item indexing the difficulty they experienced thinking about the news headlines ("How easy or difficult was thinking about the statements?") that was embedded in a questionnaire after completing the news headline task. Participants rated this item on a 5-point scale anchored by the points 0 (*very easy*) and 4 (*very difficult*). Higher values on this measure indicated greater reported cognitive load.

Results

We began by verifying that the information volume manipulation was successful. As expected, participants in the many trials condition ($M = 1.77$, $SD = 1.13$) reported experiencing greater cognitive load than those in the few trials condition ($M = 1.64$, $SD = 1.14$), $t(1497) = 2.12$, $p = .03$, $d = 0.11$.

Next, we conducted our primary analyses. An ANOVA with condition as a between-subjects factor and trial type as a within-subjects factor revealed a significant main effect of trial type for attitudes toward restrictive policies, $F(1, 1,497) = 5.24$, $p = .02$, $\eta_p^2 = .003$, and a nonsignificant main effect for intentions to support restrictive policies, $F(1, 1,497) = 2.99$, $p = .08$, $\eta_p^2 < .001$—likely owing to the decreased power associated with the reduction of trials used to compute the outcomes. In line with the prior studies, attitudes toward restrictive policies were significantly more negative on bypassing trials ($M = 0.35$, $SD = 1.89$) relative to correction trials ($M = 0.48$, $SD = 1.57$). However, intentions to support restrictive policies on bypassing trials ($M = 2.57$, $SD = 1.66$) were not significantly different from correction trials ($M = 2.68$, $SD = 1.74$). Thus, even when employing less precise outcome measures (i.e., comparing responses on two rather than 12 trials), there was qualified evidence consistent with the idea that bypassing holds an advantage over correction in the news headline task.

Concerning the information volume manipulation, the results revealed no interaction between condition and trial type for either attitudes toward restrictive policies, $F(1, 1,497) = 0.001$, $p = .99$, $\eta_p^2 < .001$, or intentions to support restrictive policies, $F(1, 1,497) = 0.56$, $p = .45$, $\eta_p^2 < .001$. That is, there was no difference in the relative difference between bypassing and correction trials across between-subjects conditions. When looking at the difference between bypassing and correction trials (see Table 2), no significant differences emerge within each between-subjects condition. The lack of statistical significance in the comparisons between bypassing may be explained by the reduction in statistical power resulting from using fewer trials for calculating critical dependent variables. Returning to the interaction terms themselves, our large sample gave us sufficient power to detect a small within–between-subjects interaction of Cohen's $f = 0.07$, suggesting that the null interactions effects reported are likely not a function of a lack of statistical power. Given the inherent difficulty in interpreting null results, however, we conducted exploratory analyses beyond those we preregistered. Specifically, we used Bayesian statistics to quantify the strength of evidence supporting a model that did not include an interaction between trial type and condition. Using the *BayesFactor* package in R (Version 4.2.3), we compared models with an interaction between trial type and condition to one without such an interaction. We found Bayes factors indicating strong evidence against the necessity of including the interaction term for attitudes toward restrictive policies (0.056) and very strong evidence against the interaction term for intentions to support such policies (0.015).

Discussion

Experiment 3 varied the amount of information participants processed during the news headline task to determine its impact on the relative efficacy of bypassing and correction. Although the pattern of results was generally consistent, with bypassing being generally more effective than correction as a main effect on attitudes, there were no significant interactions between the number of trials and trial type (bypassing vs. correction) for either attitudes toward restrictive policies or intentions to support restrictive policies. These null results suggest that the amount of information people process is not a determinant of the efficacy of bypassing versus correction. However, other manipulations intended to disrupt the deliberative processing of information may affect the impact of bypassing. To disrupt deliberative processing more thoroughly, we included more targeted manipulations intended to lower motivation and ability to process. Thus, in Experiment 4, we tested the impact of a different experimental procedure that more directly manipulated the motivation and ability to process information. Specifically, in one condition, we told participants that (a) their responses were anonymous and they would not be asked to defend them, and (b) they had only 1 s to read them. This condition was compared with another without these instructions and time restrictions.

Experiment 4

Method

Participants

Initially, we preregistered a two-stage data collection plan (Wave 1 $N = 250$, Wave 2 $N = 250$) in which we controlled the Type I error rate through sequential analyses (Lakens & Evers, 2014). Both waves of data were collected. After analyzing the data, we elected to triple the sample size (total $N = 1,500$) and conducted an integrative data analysis to provide a more definitive test of the interaction effect, which, as shall be seen, was not significant in any case. We preregistered the initial collection of data, as well as the subsequent increase in sample size and the integrative data analysis (https://aspredicted.org/544_KLM; https://aspredicted.org/2R1_Y8G).

In total, 1,500 Prolific workers participated in this experiment in exchange for payment. We excluded five participants from the analyses for responding incorrectly to a simple attention check item. The final sample consisted of 1,495 participants (gender: 751 male, 728 female, 16 nonbinary or gender-fluid; race: 73.8% White, 13.8% Black or

Table 2
Results for Outcomes in Experiment 3

Outcome	Condition	Bypassing *M* (*SD*)	Correction *M* (*SD*)	*t*	*p*	*d*
Attitudes toward restrictive policies	Many trials	0.69 (2.08)	0.82 (1.88)	−1.50	.13	−0.06
	Few trials	0.03 (1.62)	0.16 (1.08)	−1.76	.08	−0.06
Intentions to support restrictive policies	Many trials	2.20 (1.90)	2.26 (1.92)	−0.68	.50	−0.03
	Few trials	2.94 (1.29)	3.09 (1.43)	−1.78	.08	−0.07

African American, 5.0% Asian, 0.7% American Indian or Alaska Native, 0.1% Native Hawaiian or other Pacific Islander, 2.0% not listed, 4.8% multiracial; ethnicity: 8.4% identified as Hispanic; age [years]: $M = 40.06$, $SD = 13.97$). A sample of this size provided 80% power to detect a within–between-subjects interaction effect as small as Cohen's $f = 0.08$ ($\eta_p^2 = .006$).

Design, Procedure, Materials, and Measures

To test whether the level of motivation and ability to process information moderated the advantage of bypassing, Experiment 4 employed a within–between design (within-subjects factor: trial type [correction vs. bypassing]; between-subjects factor: motivation and ability [low vs. high]). Participants were randomly assigned to read that either (a) their responses were anonymous and they would not have to defend them and were restricted to having 1 s to read the second statement (low motivation and ability condition) or (b) they may be asked to defend their responses at the end of the experiment and had unlimited time to read the second statement (high motivation and ability condition). Otherwise, the headline task itself proceeded in the exact manner described in Experiment 2. Participants completed 12 trials in total (six correction and six bypassing trials), and restrictive policy attitudes and intentions to support them served as the outcome measures.

Restrictive Policy Attitudes. Restrictive policy attitudes were measured in the same manner described in Experiment 1. Higher values on this measure indicated a stronger effect of the initial misinformation. This measure showed excellent internal consistency ($\alpha = .93$).

Restrictive Policy Support Intentions. Restrictive policy support intentions were measured in the manner described in Experiment 1. Higher values on this measure indicated a stronger effect of the initial misinformation. This measure showed good internal consistency ($\alpha = .82$).

Results

As noted above, after an initial round of data collection, we elected to triple the sample size and conduct an integrative data analysis to provide a more definitive test of the interaction effect. We present the results of the integrative data analysis below but direct interested readers to the Supplemental Material for a presentation of the results within each study, which remain substantively unchanged.

To test our hypothesis regarding the role of motivation and ability in moderating the efficacy of bypassing, we combined all available data and added study as an additional factor. Study was not a significant moderator of the analyses involving either attitudes toward restrictive policies or intentions to support restrictive policies (all $ps > .12$; see Supplemental Material for details). The analyses did reveal a significant main effect of trial type for attitudes toward restrictive policies, $F(1, 1{,}491) = 55.25$, $p < .001$, $\eta_p^2 = 0.04$, and intentions to support restrictive policies, $F(1, 1{,}491) = 47.72$, $p < .001$, $\eta_p^2 = 0.03$. Replicating the results of prior experiments, attitudes toward restrictive policies were significantly more negative on bypassing trials ($M = -0.08$, $SD = 0.71$) than on correction trials ($M = 0.10$, $SD = 0.57$). Similarly, intentions to support restrictive policies were lower on bypassing ($M = 2.91$, $SD = 0.58$) relative to correction trials ($M = 3.09$, $SD = 0.66$). That is, when collapsing across between-subjects conditions, bypassing continued to hold an edge over correction in blunting the impact of misinformation on people's attitudes and intentions.

Most relevant to the hypotheses of Experiment 4, however, is the potential of an interaction between the manipulation of motivation and ability to process and trial type. As seen in Table 3, bypassing attenuated the impact of misinformation better than correction, irrespective of whether motivation and ability were high or low. This pattern was evident for both restrictive policy attitudes and intentions to support such policies. Even with a large sample of 1,495 participants, we found no significant interaction between trial type and motivation and ability condition, either concerning attitudes toward restrictive policies, $F(1, 1{,}491) = 0.80$, $p = .37$, $\eta_p^2 = .001$, or intentions to support restrictive policies, $F(1, 1{,}491) = 1.32$, $p = .25$, $\eta_p^2 = .001$. Notably, a sample as large as the one employed in these analyses afforded 80% power to detect a within–between-subjects interaction effect as small as Cohen's $f = 0.08$ ($\eta_p^2 = .006$). To better quantify the state of the evidence for the inclusion of an interaction term, we once again conducted exploratory Bayesian analyses. Specifically, we compared models with an interaction between trial type and condition to ones without such an interaction. These data revealed Bayes factors indicating strong evidence against the necessity of including the interaction term for attitudes toward restrictive policies (0.080) and moderate evidence with regard to intentions to support such policies (0.17). Combined with the results from Experiment 3, these findings lend further credibility to the conclusion that bypassing is superior to correction across levels of motivation and ability to process the information presented.

Discussion

After discovering a definitive advantage of bypassing over corrections in the form of negations in Experiments 1 and 2 and finding no evidence that cognitive load via an information manipulation modulates this process in Experiment 3, Experiment 4 tested whether motivation and ability to think about the headlines

Table 3
Results for Outcomes in Experiment 4

Outcome	Condition	Bypassing *M* (*SD*)	Correction *M* (*SD*)	*t*	*p*	*d*
Attitudes toward restrictive policies	High motivation/ability	−0.06 (0.71)	0.11 (0.55)	4.59	<.001	0.17
	Low motivation/ability	−0.10 (0.71)	0.10 (0.60)	5.71	<.001	0.21
Intentions to support restrictive policies	High motivation/ability	2.94 (0.59)	3.08 (0.66)	4.17	<.001	0.15
	Low motivation/ability	2.89 (0.57)	3.09 (0.65)	6.05	<.001	0.22

moderate the advantage enjoyed by bypassing. Participants read instructions intended to either lower or heighten their motivation and ability to process the headlines and then completed the news headline task used in the previous experiments. Despite accumulating a large sample (1,495 participants) that afforded us sufficient power to detect a small within–between interaction effect, an integrative data analysis yielded no evidence that the efficacy of bypassing differed between the low and high motivation and ability conditions. Moreover, Bayesian analyses suggest the evidence favors the null hypothesis regarding the interaction between the manipulation of motivation and ability to process and trial type. Thus, the amount of processing devoted to the messages appears to not contribute to the difference between bypassing and correction.

Next, we tested an alternative hypothesis to explain the advantage of bypassing. Namely, we proposed that forming beliefs instead of forming attitudes would moderate the effects of bypassing. We predicted that when people form attitudes toward the focal object when they receive the misinformation, the misinformation would serve as an anchor, rendering bypassing and correction similar in their ability to bring about attitude change. We thus manipulated the attitude formation goal by having participants evaluate whether the objects in Experiment 5 were good or bad. We reasoned that forming an evaluation of unknown objects is necessary for later decisions about restricting those objects. As such, following appropriate piloting, we focused participants on their evaluation of the chemicals themselves, even though our prior experiments aligned themselves with previous work on bypassing (Calabrese & Albarracín, 2023) by assessing attitudes toward restrictive policies.

In contrast, when people primarily form beliefs as they process information, we reasoned that bypassing would be superior to correction for changing attitudes because corrections are often not able to completely eliminate the influence of the initial misinformation (continued influence effect), whereas bypassing operates according to the principles of expectancy-value models and thus allows for more complete attitude change. Therefore, in Experiment 5, we experimentally manipulated whether people formed attitudes or focused on accuracy as they read the headlines and compared these two goal conditions to a control condition in which they were given no special instructions. We expected the control condition to largely mirror the accuracy condition. Importantly, we included a measure of attitudes toward each object as we hypothesized that an individual's evaluation of an object, relative to their evaluation of a policy intended to affect everyone, may be more sensitive to our manipulations.

Experiment 5

Method

Participants

We preregistered a two-stage data collection plan (Wave 1 N = 1,000, Wave 2 N = 1,000) where we controlled the Type I error rate through sequential analyses (Lakens & Evers, 2014), which yielded α boundaries for the two potential analyses of .029 and .029 (https://aspredicted.org/CYJ_K2T). Both waves of data were collected. In total, 1,997 Prolific workers participated in this experiment in exchange for payment. All participants passed the attention check item, leaving us with a final sample of 1,997 participants (gender: 890 male, 1,060 female, 47 nonbinary or gender-fluid; race: 75.7% White, 11.7% Black or African American, 5.3% Asian, 0.6% American Indian or Alaska Native, 0.2% Native Hawaiian or other Pacific Islander, 1.6% preferred to self-describe, 5.1% multiracial; ethnicity: 9.4% identified as Hispanic; age [years]: M = 38.88, SD = 13.50). A sample of this size provided us with 80% power to detect a within–between interaction effect as small as Cohen's f = 0.07 (η_p^2 = .005).

Design, Procedure, Materials, and Measures

Experiment 5 employed a within–between design (within-subjects factor: trial type [correction vs. bypassing]; between-subjects factor: processing goal [accuracy vs. attitude formation vs. control]). Participants were randomly assigned to either an accuracy condition, an attitude formation condition, or a control condition. We manipulated how participants processed information via instructions and reinforced these instructions through self-report questions. For each trial of the task for those in the accuracy condition, participants were instructed to think about the accuracy of the misinformation. Given that beliefs can be conceptualized as subjective probabilities that an object possesses some characteristic (Fishbein & Ajzen, 2010), focusing attention on the effects of the focal object in question should lead people to form beliefs about that focal object. Then, participants read the misinformation headline (e.g., "The chemical TSF causes anxiety"), after which they responded to a survey question that reinforced the validity of the statement ("Does the chemical TSF cause anxiety?"). Last, participants read either a correction or a bypassing message. In the attitude formation condition, participants were instructed to consider whether the object was good or bad. Next, they read the misinformation headline and responded to a question about the evaluative implication of the statement ("Is the chemical TSF good or bad?"). Then, participants read either the correction or bypassing message. For those in the control condition, the headline task operated as described in Experiment 2. There were 12 trials in total (six positively valenced and six negatively valenced pieces of misinformation; six correction and six bypassing trials) for participants in all conditions. In addition to measuring restrictive policy attitudes and support intentions as before (see Experiment 1 for measurement details), we also measured people's attitudes toward the objects themselves. Our interest in assessing attitudes toward the focal objects stemmed from our belief that in an information-restricted environment like that presented by the headline task, the influence of correction and bypassing on people's attitudes toward objects would be all the more evident.

At the end of the experiment, we included manipulation checks in which we assessed the degree to which people formed attitudes and focused on accuracy as they processed misinformation.

Focal Object Attitudes. Participants reported their attitudes toward the focal objects ("In general, the chemical TSF is") using three 7-point semantic differential scales with the adjectives *bad–good, unhelpful–helpful, and negative–positive* anchoring response options that ranged from −3 to +3. As with the other outcome measures, attitudes toward focal objects were scored such that higher numbers indicated a stronger effect of the initial misinformation. Accordingly, attitudes toward objects associated with negative initial misinformation were reverse-scored. Responses were averaged to form a focal object attitude composite. This measure showed good internal consistency (α = .87).

Restrictive Policy Attitudes. Restrictive policy attitudes were measured in the same manner described in Experiment 1. Higher values on this measure indicated a stronger effect of the initial

misinformation. This measure showed good internal consistency ($\alpha = .87$).

Restrictive Policy Support Intentions. In Experiment 5, we altered the wording of our measure of restrictive policy support intentions to better link them to a behavior that participants may encounter during the experiment. Instead of reporting the degree to which participants were likely to support policies aimed at restricting the use of the focal object as in prior experiments, intentions to support restrictive policies were measured through a single-item assessing the likelihood of signing a petition supporting a policy that would restrict the use of the focal object in the future (e.g., "How likely are you to sign a petition supporting a policy that restricts the use of the chemical TSF in the future?") on a 5-point Likert scale anchored by the endpoints of 1 (*not at all likely*) to 5 (*very likely*). For objects associated with negative initial misinformation, stronger intentions to support restrictive policies indicate a stronger effect of the initial misinformation. Accordingly, intentions to support restrictive policies for objects associated with positive initial misinformation were reverse-scored. As before, higher values on this measure indicated a stronger effect of the initial misinformation. This measure showed good internal consistency ($\alpha = .86$).

Manipulation Check—Focus on Accuracy. To assess the degree to which people were focused on forming beliefs based on the misinformation headlines they read, participants responded to a one-item measure ("As you read the first statement, to what extent were you focusing on the accuracy of the statement?") rated on a five-item scale ranging from 0 (*not at all*) to 4 (*very much*). This measure was embedded in a questionnaire completed after the news headline task.

Manipulation Check—Attitude Formation. Similarly, the degree to which people actively formed attitudes based on the misinformation headlines was assessed using a one-item measure included after the end of the news headline task. Specifically, participants reflected on the extent to which they focused on evaluating the misinformation ("As you read the first statement, to what extent were you focusing on evaluating whether the focal object [e.g., the chemical TSF] was good or bad?") using a five-item scale ranging from 0 (*not at all*) to 4 (*very much*).

Results

Before conducting the substantive analyses, we checked whether our manipulation was successful in promoting a focus on the accuracy of the misinformation headlines in the accuracy condition and the formation of attitudes in the attitude formation condition. With our measure of focus on accuracy as the outcome, a one-way ANOVA revealed a significant effect of goal condition, $F(2, 1994) = 20.01$, $p < .001$, $\eta_p^2 = .02$. As predicted, participants in the accuracy condition ($M = 2.89$, $SD = 1.25$) reported focusing on accuracy to a greater extent relative to those in both the attitude formation ($M = 2.44$, $SD = 1.39$), $t(1327) = 6.10$, $p < .001$, $d = 0.34$, and control condition ($M = 2.55$, $SD = 1.33$), $t(1316) = 4.71$, $p < .001$, $d = 0.26$. There was no difference between the misinformation control condition and attitude formation condition, $t(1345) = 1.45$, $p = .15$, $d = 0.08$.

Concerning attitude formation, a one-way ANOVA once again revealed an effect of goal condition, $F(2, 1994) = 44.63$, $p < .001$, $\eta_p^2 = 0.04$. Participants were more likely to form attitudes in the attitude formation condition ($M = 3.41$, $SD = 0.82$) relative to both the accuracy ($M = 2.94$, $SD = 1.11$), $t(1327) = 8.74$, $p < .001$, $d = 0.48$, and control conditions ($M = 3.00$; $SD = 1.01$), $t(1345) = 8.13$, $p < .001$, $d = 0.44$. The accuracy and control conditions did not significantly differ, $t(1316) = 1.00$, $p = .32$, $d = 0.05$.

Next, we conducted our substantive analyses. The data were analyzed via within–between ANOVAs. As seen in Table 4 and Figure 4, we largely replicated the earlier findings concerning the impact of different trial types on attitudes toward the focal objects, with bypassing trials ($M = –0.08$, $SD = 0.72$) being significantly better at attenuating the impact of misinformation on attitudes toward the objects relative to correction ($M = –0.004$, $SD = 0.64$). The same was the case for attitudes toward respective policies (bypassing trials: $M = −0.05$, $SD = 0.75$, correction trials: $M = 0.03$, $SD = 0.58$) and intentions to support restrictive policies (bypassing trials: $M = −0.05$, $SD = 0.75$, correction trials: $M = 0.03$, $SD = 0.58$).

We then focused on inspecting the critical interaction between trial type and processing goal condition. Table 4 shows that with attitudes toward the focal object as an outcome, the advantage of bypassing observed in earlier experiments emerged in both the control and accuracy conditions but was not evident in the attitude formation condition—a pattern consistent with our hypotheses. The interaction between trial type and processing goals for attitudes toward restrictive policies was nonsignificant, and our hypothesis was not supported. Although there was a significant difference between bypassing and correction trials in the accuracy condition, this was not the case in the attitude formation or control conditions. Moreover, there was no indication of an interaction between trial type and condition regarding intentions to support restrictive policies. Although there was a significant advantage of bypassing relative to correction in attenuating the impact of misinformation on intentions in the control condition, no such advantage was detected in either the accuracy or attitude formation condition.

Discussion

In Experiment 5, we directly tested whether forming beliefs rather than attitudes during information processing might alter the relative effectiveness of bypassing observed in previous experiments. We reasoned that when people form attitudes as they receive information, the attitude based on misinformation would serve as an anchor, and bypassing would exert an influence similar to that of correction as both require the revision of that prior judgment (i.e., the attitude). By contrast, when people focus on accuracy, we reasoned that there would be a continued influence effect of misinformation on attitudes on correction trials. Still, bypassing would lead to greater attitude change as people constructed their attitudes based on the principles of expectancy-value models. Specifically, we predicted that there would be no difference between bypassing and correction in the attitude formation condition but that bypassing would be more effective at combating the effects of misinformation in the accuracy condition. Moreover, we expected the results in the control condition to largely mirror those in the accuracy condition. The results were largely supportive of our hypotheses. First, we successfully replicated our previous finding that bypassing was more effective at attenuating the impact of misinformation on people's attitudes toward the focal object as both a main effect and in the control condition. More to the point, the relative advantage of bypassing over correction in changing people's attitudes toward the focal object was present in the accuracy condition

Table 4
Means, Standard Deviations, and Inferential Statistics for Experiment 5

Outcome	Condition	Trial type: Bypassing *M* (*SD*)	Trial type: Correction *M* (*SD*)	*t*	*p*	*d*
Attitudes toward focal object	Accuracy	−0.22 (0.79)	−0.06 (0.71)	4.37	<.001	0.17
	Attitude formation	−0.01 (0.70)	−0.03 (0.65)	0.56	.56	−0.02
	Control	−0.02 (0.65)	0.08 (0.53)	3.01	.002	0.12

Main effect and interaction	*F*	*p*	η_p^2
Trial type	16.97	<.001	.008
Processing goal	17.63	<.001	.017
Trial Type × Processing Goal	7.15	<.001	.007

Outcome	Condition	Trial type: Bypassing *M* (*SD*)	Trial type: Correction *M* (*SD*)	*t*	*p*	*d*
Attitudes toward restrictive policies	Accuracy	−0.14 (0.81)	0.01 (0.66)	3.89	<.001	0.15
	Attitude formation	0.004 (0.70)	0.04 (0.56)	1.14	.25	0.04
	Control	−0.01 (0.71)	0.05 (0.51)	1.88	.06	0.07

Main effect and interaction	*F*	*p*	η_p^2
Trial type	16.90	<.001	.008
Processing goal	6.38	.002	.006
Trial Type × Processing Goal	2.68	.07	.003

Outcome	Condition	Trial type: Bypassing *M* (*SD*)	Trial type: Correction *M* (*SD*)	*t*	*p*	*d*
Intentions to support restrictive policies	Accuracy	2.95 (0.70)	3.00 (0.76)	1.18	.24	0.05
	Attitude formation	2.98 (0.66)	3.01 (0.71)	0.85	.40	0.03
	Control	2.98 (0.63)	3.08 (0.72)	2.31	.02	0.09

Main effect and interaction	*F*	*p*	η_p^2
Trial type	6.24	.01	.003
Processing goal	2.35	.10	.002
Trial Type × Processing Goal	0.58	.56	.001

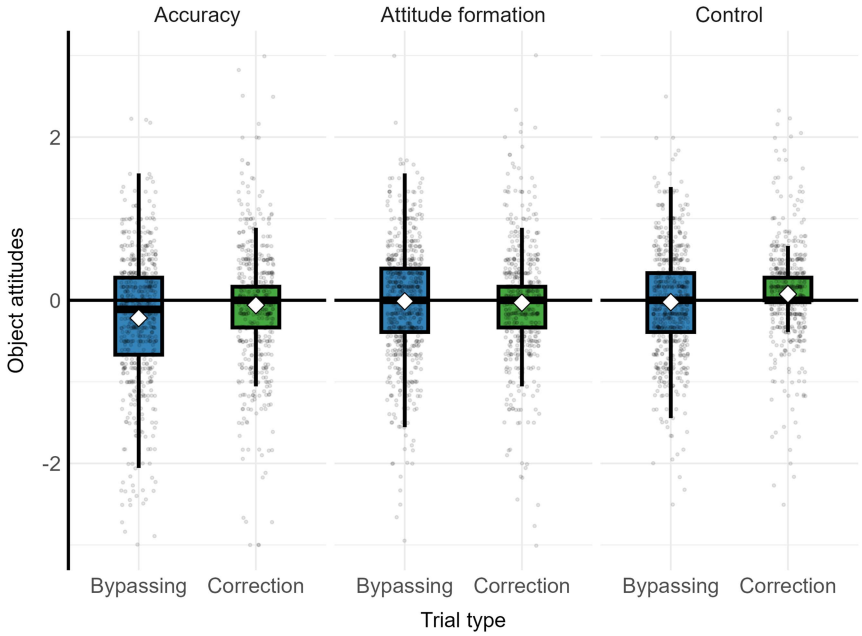
but not in the attitude formation condition. This pattern was partially mirrored when focusing on people's attitudes toward restrictive policies as a main effect, although the interaction between trial type and condition was not significant. Concerning intentions, the results were similar. Whereas bypassing was more effective at attenuating the impact of misinformation on people's intentions to support restrictive policies across conditions, there was no significant interaction between trial type and condition.

An alternative explanation for the results of Experiment 5 implicates discomfort in explaining the advantage enjoyed by bypassing in the accuracy condition. Previous research has found that corrections can trigger discomfort in recipients (Susmann & Wegener, 2022) through direct conflict with the original information, a perceived threat to their freedom, or a general sense of uncertainty. Bypassing instead presents messages that have an opposite evaluative implication but are not incompatible with the original misinformation. According to this alternative account, the attitude formation condition's focus on attitudinal implications may have increased the salience of the conflict between the initial misinformation and both the correction and bypassing messages, thereby arousing similar levels of discomfort across both kinds of trials and attenuating the advantage enjoyed by bypassing. By contrast, the accuracy condition fostered an environment in which the evaluative opposition between the initial misinformation and bypassing messages was less salient than that between the misinformation and corrections.

In an experiment reported in the Supplemental Material, we conducted a near replication of Experiment 5 (a within–between-subjects design; within-subjects factor: trial type [correction vs. bypassing]; between-subjects factor: processing goal [accuracy vs. attitude vs. control]) to test whether psychological discomfort—as assessed via self-reported irritation, anger, annoyance, and aggravation after reading correction and bypassing messages—may account for

Figure 4

Boxplot of Results Involving Object Attitudes in Experiment 5



Note. The boxplot shows object attitudes as a function of trial type (within-subjects factor: bypassing and correction) and processing condition (between-subjects factor: accuracy, attitude formation, and control). Higher values indicate stronger effects of misinformation. The boxplots display the median (line inside the box), interquartile range (box), and range of the data (whiskers). Diamonds indicate mean values and the associated 95% confidence intervals. Data points are horizontally jittered to reduce overlap. See the online article for the color version of this figure.

the advantage enjoyed by bypassing in the accuracy and control conditions in Experiment 5. The results of this experiment, however, provided no support for this hypothesis. That is, there was no interaction between trial type (bypassing vs. correction) and processing goal condition (accuracy vs. attitude vs. control), indicating that these feelings could not explain the impact of the goal manipulation on the efficacy of bypassing. Instead, we found a main effect of trial type such that, across all conditions, participants reported less discomfort after reading bypassing messages relative to corrections (see Supplemental Experiment 1). Still, this effect was independent of the cognitive account presented in Experiment 5. That is, discomfort was significantly lower on bypassing (vs. correction) trials irrespective of goal condition, suggesting that a reduction of discomfort might also play a role in the overall advantage enjoyed by bypassing. In addition to the cognitive processing account supported in Experiment 5, bypassing may also surpass correction because it arouses less discomfort. Not surprisingly, then, there is evidence that the relative advantage enjoyed by bypassing operates through different pathways. Future research should more thoroughly investigate this additional motivational pathway to better map the different mechanisms that contribute to the efficacy of bypassing.

Having established that bypassing can attenuate the impact of misinformation more strongly than correction in the form of simple negations across five experiments using fictitious misinformation and shedding light on the associated cognitive mechanisms, in Experiment 6, we sought to test whether this advantage would emerge when using real-world stimuli. Thus, we conducted a conceptual replication of Experiment 2 by using real misinformation topics.

Experiment 6

Method

Participants

As before, we conducted a multistep data collection procedure. Specifically, we preregistered a three-wave data collection plan (Wave 1 $N = 550$, Wave 2 $N = 550$, Wave 3 $N = 550$) in which Type I error was controlled using sequential analyses (Lakens & Evers, 2014), yielding equal α boundaries for the three potential analyses of .022 (https://aspredicted.org/8DF_DLK). However, only one wave of data collection was completed, given the significance of results in the first wave. In total, 546 Prolific workers participated in this experiment in exchange for payment. No participants failed to correctly respond to the attention check item, yielding a final sample of 546 participants (gender: 198 male, 343 female, five nonbinary or agender; race: 65.93% White, 19.60% Black or African American, 6.23% Asian, 0.55% American Indian or Alaska Native, 0.37% Native Hawaiian or other Pacific Islander, 1.6% preferred to self-describe, 5.68% multiracial; ethnicity: 9.4% identified as Hispanic; age [years]: $M = 39.21$, $SD = 12.59$). A sample this large provided us with 80% power

to detect an effect as small as Cohen's $d = 0.24$ between our two conditions.

Design, Procedure, Materials, and Measures

This experiment employed a two-condition between-subjects design. Participants were exposed to eight headlines constructed using real-world misinformation gathered from the fact-checking website https://FactCheck.org and the social media website Instagram. Misinformation was selected for inclusion if it mentioned a focal object purported to have either a positive or negative effect and a bypassing message could be constructed with an effect of the opposite valence. For example, the headline "Aluminum in vaccines causes bone problems" is misinformation that has a negative evaluative implication. A bypassing headline for such misinformation would be, for instance, "The aluminum in vaccines makes vaccines more effective at preventing disease," which has a positive evaluative implication. However, the misinformation headline, "The moon landing was faked," has no natural associated bypassing message. Moreover, bypassing messages were constructed to roughly match the evaluative extremity of the misinformation, but precise experimental control was limited given the need to stick to the real qualities of the objects in question (see https://osf.io/yan7g/?view_only=5a90f59214eb48d2ae6dd0d0ae0510dc, for a complete list of materials). Last, we sought to collect misinformation that spanned categories of nutrition, health, and technological products.

Beyond the stimuli employed, the procedure of this experiment mirrored that of Experiment 2, borrowing the exact instructions and general structure. However, two differences are worth noting. First, in this experiment, participants were given 3 s to read the second statement (either the bypassing or correction message) because some headlines were longer than prior stimuli. Second, and most importantly, participants were randomly assigned to view either only bypassing messages or only correction messages. On each trial, participants read a misinformation headline at their own pace, then saw either a bypassing message or correction for 3 s, after which the page automatically advanced. They then completed measures of the outcomes of interest—restrictive policy attitudes, focal object attitudes, and restrictive policy-support intentions. Last, participants were thoroughly debriefed at the end of the experiment.

Focal Object Attitudes. Focal object attitudes were measured as described in Experiment 5 (e.g., "In general, the consumption of genetically modified foods is," anchored by the adjectives *bad–good, unhelpful–helpful, and negative–positive*). Higher values on this measure indicated a stronger effect of the initial misinformation. This measure showed good internal consistency ($\alpha = .86$).

Restrictive Policy Attitudes. Restrictive policy attitudes were also measured in the same manner described in Experiment 1 (e.g., "In general, policies that restrict the consumption of genetically modified foods are," anchored by the adjectives *bad–good, unhelpful–helpful, and negative–positive*). Higher values on this measure indicated a stronger effect of the initial misinformation. This measure showed good internal consistency ($\alpha = .88$).

Restrictive Policy Support Intentions. Restrictive policy support intentions were measured in the manner described in Experiment 1 (e.g., "How likely would you be to support policies that restrict the consumption of genetically modified foods in the future?" with response options ranging from *1 = not at all* to *5 = extremely likely*). Higher values on this measure indicated a stronger effect of the initial misinformation. This measure showed poor internal consistency ($\alpha = .50$).

Results

As per our preregistration, we used independent sample *t* tests to examine whether bypassing enjoyed an advantage over correction in attenuating the impact of real-world misinformation on people's focal object attitudes, restrictive policy attitudes, and restrictive policy support intentions. As seen in Table 5, the results of Experiment 6 provided some support for our hypotheses: Bypassing attenuated the impact of misinformation on participants' focal object attitudes to a greater extent than correction, thereby showing an advantage of bypassing in this regard with real-world misinformation (see Figure 5). However, there was no significant difference between bypassing and correction for either policy-support attitudes or intentions.

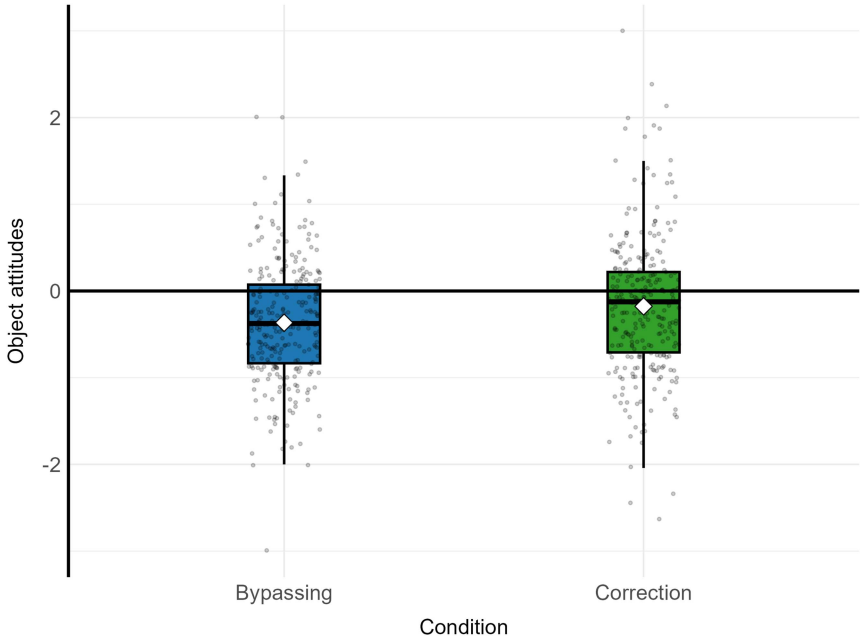
Given the somewhat greater variability in the real-world stimuli used in Experiment 6, we sought to ensure the robustness of our results through exploratory analyses using mixed models. To this end, we used the R package *lme4* (R Version 4.2.3) to estimate a mixed model focused on focal object attitudes that treated stimuli and participants as random factors (Judd et al., 2012), thereby allowing us to generalize beyond the stimuli used in this experiment. In particular, we specified a model with a random intercept and a random slope for participants and a random intercept for stimuli, following the recommendations of Judd et al. (2012). Importantly, we also specified an interaction term between condition and stimuli to ensure that the effect of condition did not differ as a function of the stimuli. The results revealed a significant effect of condition favoring bypassing over correction, $b = -0.30$, $t(2640.08) = -2.84$, $p = .005$, consistent with the abovementioned findings. Importantly, there was no significant interaction between condition and stimulus index, $b = 0.02$, $t(3814.00) = 1.30$, $p = .19$, indicating that the

Table 5
Results of Independent Samples t Tests for Experiment 6 (N = 546)

Outcome	Bypassing *M* (*SD*)	Correction *M* (*SD*)	*t*(544)	*p*	*d*
Focal object attitudes	−0.37 (0.70)	−0.18 (0.81)	2.93	.004	0.25
Attitudes toward restrictive policies	−0.13 (0.68)	−0.13 (0.80)	−0.04	.97	−0.003
Intentions to support restrictive policies	2.50 (0.50)	2.53 (0.61)	0.77	.44	.07

Figure 5

Boxplot of Results Involving Object Attitudes in Experiment 6



Note. The boxplot shows object attitudes as a function of trial type (within-subjects factor: bypassing and correction) and processing condition (between-subjects factor: accuracy, attitude formation, and control). Higher values indicate stronger effects of misinformation. The boxplots display the median (line inside the box), interquartile range (box), and range of the data (whiskers). Diamonds indicate mean values and the associated 95% confidence intervals. Data points are horizontally jittered to reduce overlap. See the online article for the color version of this figure.

efficacy of bypassing did not significantly differ across stimuli (see Supplemental Material for full model details).

Given the lack of a significant interaction, we removed the interaction term and specified a simpler model with only condition as a predictor of object attitudes. Moreover, an inspection of the data suggested the inclusion of a random slope for participants may not be appropriate for the data. Indeed, a chi-square test suggested that this more complex model with a random slope for participants did not provide a better fit to the data than a simpler model without this random slope—that is, a model with only random intercepts for both participants and stimuli, $\chi^2(2) = 5.89$, $p = .052$. Thus, our final model predicted focal object attitudes as a function of condition with a random intercept for both participants and stimuli. This simpler model supported the conclusion that bypassing enjoyed an advantage over correction for combating the impact of misinformation on object attitudes, $b = -0.18$, $t(543.99) = -2.93$, $p = .003$ (see Supplemental Material for full details).

Discussion

The purpose of Experiment 6 was to replicate our earlier findings regarding the advantage of bypassing obtained using fictitious stimuli in a context involving misinformation taken from the real world. We found that bypassing enjoyed an advantage relative to correction in changing focal object attitudes, but this advantage did not extend to restrictive policy support attitudes or intentions. One potential explanation for this finding is that bypassing can shift personal evaluations of the objects themselves but fails to change evaluations of policies that may be stronger and multiply-determined (i.e., influenced by factors external to the content of the messages). Following exposure to misinformation, people came to view the consumption of genetically modified foods in a more positive light after reading a bypassing statement relative to a correction. Still, perhaps they did not feel entitled to extend those attitudes to policies that would impact other people. These data add nuance to our findings, suggesting that bypassing in this context can better change evaluations that pertain to the self. Although prior research can shift policy attitudes and intentions toward real-world objects using lengthier articles (Calabrese & Albarracín, 2023), it seems reasonable that doing so is more difficult in the context of news headlines. However, it is possible that changes in the instructions provided at the start of the task or additional activities after receiving the bypassing information could be leveraged to convert focal object attitudes into attitudes and intentions toward policy.

General Discussion

Across six preregistered experiments, we found evidence that bypassing—a process of introducing new, nonmutually exclusive beliefs that have an opposite evaluative implication to that of the misinformation—can be generally more effective than a correction in the form of simple negation when it comes to changing people's attitudes and intentions. Experiments 1 and 2 showed that, relative to correction, bypassing is superior at attenuating the impact of misinformation on people's policy attitudes and intentions. In

Experiment 3, we found that the number of trials of the news headline task did not moderate the advantage of bypassing. Moreover, Experiment 4 showed that the general amount of processing participants devoted to the headlines also failed to moderate the relative advantage of bypassing. Notably, we selected the manipulations implemented in Experiments 3 and 4 to mimic the kinds of situations people may encounter in their daily lives. Although the current set of experiments provides evidence against the idea that motivation and ability to process moderate the advantage enjoyed by bypassing, it is possible that more heavy-handed manipulations of motivation and ability to process information may significantly moderate the advantage enjoyed by bypassing.

Experiment 5 revealed that the *manner* in which people processed information mattered: The advantage of bypassing on focal object attitudes was evident when participants focused on the accuracy of the statements but not when they focused on forming attitudes toward the objects being discussed. This relative advantage of bypassing for changing object attitudes was mirrored in the control condition, suggesting parallels in how people process information when instructed to focus on the accuracy of the statements and more spontaneously, without such instructions. Last, Experiment 6 used real-world misinformation and found that bypassing was superior to correction at changing focal object attitudes but not policy support attitudes or intentions.

The current research finds that in the context of a news headline-reading task, bypassing can be generally more effective than correction at attenuating the impact of misinformation on people's attitudes and intentions, particularly for unfamiliar objects. The parallel between the accuracy condition and the control condition in Experiment 5 with regard to object attitudes (in which bypassing enjoys an advantage over correction in both conditions) and their contrast to the attitude formation condition (in which no such advantage exists) suggests that people completing the headline task tend to naturally focus on the validity of the statements themselves and not form an evaluation until queried. Among many other characteristics that can influence how information is processed, people are more likely to make judgments based on their memory when not given a specific processing goal and when immersed in more demanding contexts (see Druckman & Lupia, 2000, for a review), both of which match the characteristics of our task in the control condition. Generalizing from this idea, it is under such conditions that bypassing should enjoy its greatest advantage. Going further, the results of Experiment 5 provide some insight into why bypassing can be more effective than correction. In situations where people are forming attitudes, the initial attitude formed based on misinformation can serve as an anchor, yielding no advantage for either bypassing or correction. In contrast, when people initially form a belief based on misinformation and do not form an attitude, the formation of the attitude proceeds according to expectancy-value principles after bypassing, yet corrections suffer from the continued influence of misinformation, yielding an advantage for bypassing.

Having analyzed when and why bypassing may enjoy an advantage in shaping attitudes and intentions after exposure to misinformation, it is instructive to compare the current work with prior research on bypassing. Calabrese and Albarracín (2023) found that bypassing was equally effective to correction at changing restrictive policy attitudes and support intentions following exposure to misinformation in the context of a task in which participants read long-form articles. Experiment 3 tested whether the amount of information processed may explain this discrepancy but yielded null results. Similarly, Experiment 4 suggested that a direct manipulation of motivation and ability to process information could not account for the advantage of bypassing. The results of Experiment 5, however, suggest that the article-reading task used previously may have encouraged people to form attitudes in the moment, whereas the constant flow of information in our task might have prevented participants from doing so.

One potential criticism of the bypassing approach is that while it can change attitudes affected by misinformation, it does not address the misinformation belief itself. The concern underlying this criticism is that activation of the misinformation belief could lead people to act in undesirable ways and, thus, render bypassing less effective. In a meta-analysis presented in the Supplemental Material, we show that bypassing—although not as effective at changing misinformation beliefs as a correction—has a "spillover" effect on misinformation belief: Introducing alternative beliefs with an evaluative implication opposite to that of the misinformation can reduce misinformation beliefs. Moreover, it has been documented that mentioning true information can hinder recall of related misinformation and lower its believability (Vlasceanu & Coman, 2018). Together, these lines of evidence help alleviate concerns that the lack of direct confrontation of the misinformation belief might cause people to behave in undesirable ways.

Despite this evidence regarding the influence of bypassing on the misinformation belief itself, we maintain that using the measurement of attitudes and behavioral intentions as a benchmark for the efficacy of combating misinformation is appropriate because attitudes and behavioral intentions can exert a stronger influence on behavior than beliefs (Albarracín et al., 2024; Sheeran et al., 1999), and stopping the impact of misinformation exposure on behavior is the primary concern. Given the evidence presented in this article that bypassing can attenuate the impact of misinformation on attitudes and intentions more effectively than correction, bypassing appears to be superior to correction in the specific context studied (i.e., brief news headlines with novel information).

Future research may continue testing the conditions under which bypassing enjoys an advantage over correction, including developing a more comprehensive account of the motivational processes involved in the efficacy of bypassing, for which we provide some evidence in Supplemental Experiment 1. At a time when misinformation is a popular topic, identifying these processes and effective ways of curbing the impact of misconceptions seems a paramount pursuit. Importantly, we do not wish to suggest that bypassing will always be superior to correction. Indeed, we can imagine situations in which correction is superior to bypassing. For instance, if the evaluative impact of a bypassing message is weaker than that of the misinformation, corrections may be better at changing attitudes than bypassing. In general, we wish to see a greater exploration of the conditions that favor one strategy over the other.

Constraints on Generality

Using American samples collected on a popular online research platform, we used brief fictitious news headline-like statements to test the relative efficacy of bypassing versus correction in changing misinformation-shaped attitudes and behavioral intentions. Across six experiments, we find support for the idea that bypassing can be superior to correction in changing attitudes and intentions, particularly when people engage in memory-based processing of

previously formed beliefs. When considering the generalizability of this work, one important consideration is the kind of samples used to test the hypotheses. The first aspect of our samples we wish to highlight is their representativeness. Although our samples were not nationally representative of the U.S. population, our use of the Prolific research platform provided us with samples that were more diverse than the typical undergraduate or convenience sample. Moreover, although we may not be able to make population inferences, the current research is focused on making process inferences (Hayes, 2022): Our reliance on theory-driven hypotheses, use of experiments, and testing of moderation by process allows us greater confidence that we understand the psychological processes involved in our effects and that we can infer that our effects should hold when those processes are under operation. The second aspect concerns the cultural context in which the research was conducted. The Western context that served as the backdrop for this work has been characterized as particularly unusual (Henrich et al., 2010). Despite these documented differences, we are unaware of research that would predict that the fundamental processes of belief and attitude formation and revision studied here should differ markedly across cultures. Thus, we would predict that our results would hold across cultures. That said, the generalizability of our results to non-Western samples remains an open question for future research.

An additional dimension to consider concerning the generalizability of our findings is the nature of the task used to test our hypotheses. We primarily used a paradigm in which participants read brief news headline-like statements crafted to mimic real-world misinformation (see Brashier et al., 2021, for a similar paradigm). We know that the advantage of bypassing does not extend to situations in which people read longer texts that resemble newspaper stories like those used by Calabrese and Albarracín (2023). That said, the results of Experiment 5 suggest that bypassing enjoys an advantage when people have the goal of forming beliefs instead of attitudes. Thus, our results should generalize to other kinds of information processing situations in which such processing goals are instilled, although this remains to be directly tested. Importantly, we used pretesting to ensure that the evaluative extremity of our bypassing statements roughly matched the evaluative extremity of the misinformation. Although not directly tested here, it is reasonable to assume that our effects generalize to these situations in which the evaluative extremity of the bypassing information is matched or exceeds that of the misinformation.

Beyond those aspects of the experimental task, another critical question involves our use of primarily fictitious misinformation as stimuli. Broadly speaking, misinformation researchers have emphasized the need to use real misinformation spread online (e.g., Pennycook et al., 2021). Although real-world misinformation maximizes the external validity of the work, there are other important considerations when crafting an experiment. First, our experience is that some in the field express hesitation about exposing participants to real misinformation, especially when done repeatedly. This is not unreasonable given research on the illusory truth effect and the difficulties of correcting misinformation (e.g., Vellani et al., 2023). Beyond ethical considerations, fictitious stimuli are divorced from people's existing attitudes and worldviews. As such, they provide a better perspective on the cognitive operations underlying the phenomena of interest by yielding results free of noise introduced by external variables. Moving past the more general concerns regarding the use of fictitious stimuli, a potential problem specific to our research is that participants in Experiments 1–5—who were exposed to fictitious stimuli—may not have felt they had sufficient information to make judgments on correction trials, which contributes to the advantage enjoyed by bypassing. Although we preferred to use fictitious stimuli to test our hypotheses, we conducted an experiment using real-world misinformation to alleviate any concerns that our effects may be restricted only to using fictitious stimuli.[1] This experiment showed that bypassing can better attenuate the impact of misinformation on people's focal object attitudes but not policy-support attitudes and intentions. Given that bypassing is most successful at changing attitudes and intentions in those experiments involving fictitious information, such an advantage should be expected to be most pronounced when people are less likely to have existing attitudes toward the objects in question.

One last aspect of our paradigm we wish to highlight is our use of misinformation statements phrased in the form of an affirmation (e.g., "The chemical TSF causes anxiety") and corrections in the form of negation (e.g., "The chemical TSF does not cause anxiety"). This structure employed in our experiments matches the typical form of speech. However, sometimes misinformation exists in the form of a negation (e.g., "Climate change is not real"), and corrections exist in the form of affirmations (e.g., "Climate change is real"). Given that Experiments 3 and 4 suggest that the advantage of bypassing is independent of motivation and ability to process information, we would predict that bypassing would continue to enjoy an advantage over correction if negative misinformation and affirmative corrections were used as stimuli. However, future research is needed to address this question definitively. We have no reason to believe that the results depend on other characteristics of the participants, materials, or context.

[1] We made sure to carefully debrief participants after the experiment to prevent any negative consequences after exposure to real-world misinformation.

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