American Psychological Association

Journal of Experimental Psychology: General

0096-3445/19/$12.00

2019, Vol. 148, No. 4, 644–666
http://dx.doi.org/10.1037/xge0000586

Shooting the Messenger

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Eleven experiments provide evidence that people have a tendency to "shoot the messenger," deeming innocent bearers of bad news unlikeable. In a preregistered lab experiment, participants rated messengers who delivered bad news from a random drawing as relatively unlikeable (Study 1). A second set of studies points to the specificity of the effect: Study 2A shows that it is unique to the (innocent) messenger, and not mere bystanders. Study 2B shows that it is distinct from merely receiving information with which one disagrees. We suggest that people's tendency to deem bearers of bad news as unlikeable stems in part from their desire to make sense of chance processes. Consistent with this account, receiving bad news activates the desire to sense-make (Study 3A), and in turn, activating this desire enhances the tendency to dislike bearers of bad news (Study 3B). Next, stemming from the idea that unexpected outcomes heighten the desire to sense-make, Study 4 shows that when bad news is unexpected, messenger dislike is pronounced. Finally, consistent with the notion that people fulfill the desire to sense-make by attributing agency to entities adjacent to chance events, messenger dislike is correlated with the erroneous belief that the messenger had malevolent motives (Studies 5A, 5B, and 5C). Studies 6A and 6B go further, manipulating messenger motives independently from news valence to suggest their causal role in our process account: the tendency to dislike bearers of bad news is mitigated when recipients are made aware of the benevolence of the messenger's motives.

Keywords: judgment, communication, sense-making, attribution, disclosure

> Hence, horrible villain, or I'll spurn thine eyes
>
> Like balls before me! I'll unhair thy head!

In Shakespeare's Antony and Cleopatra, Cleopatra has harsh words for the messenger who conveys the unwelcome news that Antony has married another. If Cleopatra's response is any guide, messengers are the targets of unwarranted nastiness. Indeed, history is replete with situations in which those who dutifully deliver bad news face devastating consequences. From ancient pharaohs to Alexander the Great, some of history's greatest rulers are infamous for killing those who brought unwelcome news. In each of these cases, the messenger was just that: a person charged with merely communicating information, notably with no role in causing the unfortunate event to occur in the first place.

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The authors gratefully acknowledge the comments and suggestions from Mike Norton, Carey Morewedge, and members of the N.E.R.D. lab; and Joanne Cheng, Holly Howe, Meg King, Shannon Sciarappa, and Trevor Spelman for research assistance. The main idea and some of the studies have been shared at various academic conferences (Academy of Management, 2017, Society for Experimental Social Psychology, 2017, Society for Judgment and Decision Making, 2015).

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Beyond historical anecdotes, in modern daily life, examples abound of situations in which people receive unwanted news from an "innocent" messenger—someone who had no role in the unfortunate event's occurrence. This situation is common in medical contexts for example, when a health care provider must tell a patient something upsetting: a positive test result, a less-than-rosy prognosis, a brutal treatment regimen. How do patients respond in such situations? We provide evidence of a tendency to penalize innocent messengers and the psychology underlying it.

Specifically, we show that innocent messengers tasked with conveying an outcome undesired by the recipient are the targets of misplaced backlash in the form of diminished perceptions of likability and benevolence. Importantly, we focus on outcomes, such as those determined at random, over which neither the messenger nor the recipient could have had substantive control. We posit that the tendency to derogate innocent bearers of bad news is undergirded in part by people's fundamental need for, and desire to make sense of events that happen to them, even those arising from chance. Specifically, we propose that receiving news of an unwanted outcome heightens the desire to sense-make, which people fulfill by erroneously ascribing agency to innocent messengers. The result? Bearers of bad news are deemed to have malevolent motives, breeding dislike.

Related Research

Related work on performance feedback suggests that people sometimes judge evaluators negatively when receiving a bad review (Bannister, 1986; Blakely, 1993; Kingsley Westerman, Reno, & Heuett, 2015), especially when it disconfirms their self-concept (Green, Gino, & Staats, 2017). But in such situations, the gener-

ation and delivery of the news are intertwined: judging a messenger harshly in this context could be defensible. One might reasonably worry that the evaluator lacks skill in conducting performance evaluations, has biased views, or is driven by underhanded motives. Such inferences may be particularly warranted in situations in which the messenger may be plausibly assumed to have opted into the role, especially given that people tend to avoid having to convey bad news when given the choice (Rosen & Tesser, 1970).

In contrast, we explore situations in which messengers are assigned their fate, have no substantive control over the unfortunate event's occurrence, and this independence is transparent to recipients. As such, our work builds on prior research on impressions of mere communicators, which shows that people's perceptions of communicators are affected by the content of the messages those communicators convey, even when that content has nothing to do with the communicator (e.g., Gawronski & Walther, 2008; Manis, Cornell, & Moore, 1974; Skowronski, Carlston, Mae, & Crawford, 1998). For example, spontaneous trait transference refers to observers' erroneous belief that communicators who merely describe someone else's traits possess those traits themselves (Carlston, Skowronski, & Sparks, 1995; Skowronski et al., 1998). Like this prior work, we study inferences drawn from communicators that lack a logical basis.

In this previous research, however, perceivers are third parties who witness the communicator describe someone (Gawronski & Walther, 2008; Skowronski et al., 1998) or convey a stance (Manis et al., 1974). In contrast, we study perceivers who are directly implicated: those who receive news of an undesired or desired outcome conveyed directly to them by a messenger. Of this prior work, the present research is perhaps most closely related to a finding from Manis, Cornell, and Moore (1974, Study 2, $N = 17$) suggesting that the tendency to like people with whose beliefs we agree (Byrne, 1969; Griffit & Veitch, 1971) extends to those who merely communicate such beliefs—regardless of whether the communicator personally endorses those beliefs. Specifically, in this study, pro-marijuana perceivers held a messenger conveying a message with which they agreed (that marijuana should be legalized) in higher regard than messengers conveying disagreed-with or neutral messages. Whereas in the Manis et al. (1974) study, the unwelcome information is counter-attitudinal information—such that the ratings of the messenger may be related to a social–cognitive process of perceived dissimilarity—in our paradigms there is no attitudinal similarity information; instead, messengers communicate an undesired outcome determined at random. Further attesting to the uniqueness of our research, we suggest that these conceptual differences between the previous research and ours are undergirded by distinct processes—with the shooting the messenger effect driven in part by a unique sense-making mechanism, which we develop in the next section.

Shooting the Messenger: Conceptual Account

Why might people denigrate a messenger who, through no fault of their own, must relay news of unwanted outcomes? We posit that this tendency is motivational in nature, stemming from people's need to understand and make sense of events that happen to them (Janoff-Bulman, 1992; Janoff-Bulman & Frantz, 1997; Park & Folkman, 1997). Sense-making—making connections among things, events, and relationships (Baumeister, 1991)—is posited to be a central psychological activity; it has been invoked in theories across many areas of psychology, including clinical psychology (Hayes, Laurenceau, Feldman, Strauss, & Cardaciotto, 2007), health psychology (White, 2004), and cross-cultural psychology (e.g., Mendoza-Denton & Hansen, 2007).

What activates people's desire to sense-make? Perhaps most fundamentally, it is believed to be activated in situations in which people's sense of global meaning is violated. Global meaning refers to people's "general orienting systems" (Antonovsky, 1987; Epstein, 1991; Horowitz, 1991; Janoff-Bulman & Frantz, 1997; Marris, 1986; Mischel & Morf, 2003; Park, 2010)—the lenses through which people perceive, interpret, and comprehend the world. Although there are individual differences in global beliefs (Janoff-Bulman, 1992), commonly held beliefs are that the world is just (Lerner, 1970, 1980), benevolent (Catlin & Epstein, 1992; Janoff-Bulman, 1989; Taylor & Brown, 1988, 1994; Wortman & Silver, 1992), predictable, coherent, and controllable (Janoff-Bulman, 1989; Janoff-Bulman & Frieze, 1983; Wortman, 1983). Experiencing an event that seems to violate these beliefs—for example, a diagnosis of a disease with no apparent cause—is distressing (Carver & Scheier, 1998; Dalgleish, 2004; Epstein, 1991; Festinger, 1957; Horowitz, 1975; Janoff-Bulman & Frieze, 1983; Tait & Silver, 1989; Watkins, 2008). In turn, this incongruence motivates people to make sense of the event; doing so is theorized to help resolve the discomfort people feel when their experiences are inconsistent with their global beliefs (Cooper, 2007; Festinger, 1957; Plaks, Grant, & Dweck, 2005).[1] For example, unexpected events—perhaps because they violate a commonly held belief that the world is coherent and predictable—seem to activate the desire to sense-make (Bettman & Weitz, 1983; Clary & Tesser, 1983; Heine, Proulx, & Vohs, 2006; Kanazawa, 1992; Pyszczynski & Greenberg, 1981; Weiner, 1985; Wong & Weiner, 1981). Accordingly, the desire to sense-make appears to be particularly strong for parents of children who have died unexpectedly (Davis, Wortman, Lehman, & Silver, 2000). Of particular relevance to the posited shooting the messenger phenomenon, prior work suggests that the desire to sense-make is activated for negative outcomes and outcomes arising from chance.

Negatively valenced outcomes—perhaps because they violate a commonly held belief that the world is benevolent—seem to activate the desire to sense-make. Consistent with this proposition, people are particularly inclined to seek explanations for negative events (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Rozin & Royzman, 2001; Skowronski & Carlston, 1989). For example, people facing trauma, such as the death of a partner, frequently report attempts to make sense of those events (Nolen-Hoeksema, McBride, & Larson, 1997). Consistent with these findings, sense-making is central to many models of adaptation to stressful life events (Bonanno & Kaltman, 1999; Davis et al., 2000; Janoff-Bulman, 1992; Joseph & Linley, 2005; Lepore & Helgeson, 1998;

[1] Beliefs about specific events are typically more malleable than global belief systems, so sense-making attempts are posited to focus on assimilating the specific event into one's global belief system (Epstein, 1980; Fiske & Taylor, 1991; Janoff-Bulman, 1989, 1992; Janoff-Bulman & Timko, 1987; Marris, 1986; Nisbett & Ross, 1980; Patterson, 1993; Singer & Salovey, 1991), as opposed to vice versa, though there is scholarly debate on this point (Joseph & Linley, 2005; Park, 2010; Wrosch, Scheier, Carver, & Schulz, 2003).

Neimeyer, 2001; Taylor, 1983; Thompson & Janigian, 1988). These models imply that coming up with an explanation for the event—an outcome of sense-making processes—promotes psychological recovery in the wake of trauma.

Chance events—perhaps because they violate commonly held beliefs that the world is predictable and controllable—also seem to activate the desire to sense-make, implying that people are motivated to seek explanations for events that are inherently inexplicable. Indeed people sometimes come up with (erroneous) elaborate explanations for chance events (Keinan, 1994; Risen, 2016). Relatedly, people are particularly prone to "illusory pattern perception"—to see patterns where none exist—when they lack control (Whitson & Galinsky, 2008).

Once the desire to sense-make has been activated, how do people go about fulfilling it? Theorists have proposed that people fulfill this desire by generating explanations, or ostensible causes, for outcomes (Janoff-Bulman & Frantz, 1997; Thompson & Janigian, 1988); and they appear to do so quite readily (Bulman & Wortman, 1977; Heider, 1944; Michotte, 1963). Negative outcomes in particular, in addition to activating the desire to sense-make, seem to facilitate causal reasoning (Bohner, Bless, Schwarz, & Strack, 1988; Gilovich, 1983; Lau, 1984; Staton, 1984). For example, people generate more causal explanations when listing their thoughts after failing, as opposed to passing, a test (Bohner et al., 1988). Similarly, people are especially prone to attributing agency to others for negative outcomes: In the ultimatum game for example, people are more likely to believe their partners to be human when offered unfavorable divisions than when offered favorable ones (Morewedge, 2009). Consistent with this research, people are more likely to be held responsible for negative side effects of their (intentional) actions than for positive side effects (Knobe, 2003, 2005).

One's ability to generate causal explanations and to implicate others in those explanations is facilitated by certain contextual features (Kahneman, 2011; Kunda, 1990; Risen, 2016). For example, it is enhanced when the surface features of causality are present, such as co-occurrence and proximity. Rightly or wrongly, people attribute agency to those proximal to the event (Baumeister, 1991; Frankl, 1963; Heider, 1958; Kanazawa, 1992; Kelley, 1973; McArthur, 1972; Park & Cohen, 1992; Ross, 1977; Taylor, 1983). These contextual features are also relevant to the phenomenon of interest: relative to others merely present when information is conveyed, messengers are more closely connected, if only in a superficial sense, to the bad news. As a result, bad news messengers may be prime candidates in recipients' search for antagonists to cast in accounts of unwanted outcomes.

In sum, this conceptual development leads us to propose that people derogate innocent bearers of bad news, deeming them unlikeable. The logic is as follows: If people are motivated to make sense of negative outcomes, especially those arising outside of their control, then receiving bad news should increase their desire to sense-make. In turn, we predict that the desire to sense-make breeds dislike of bearers of bad news and that it does so via recipients' (erroneous) ascription of malevolent motives to that messenger. We posit this to be the case because: (a) the desire to sense-make prompts causal reasoning (Janoff-Bulman & Frantz, 1997; Thompson & Janigian, 1988); (b) causal reasoning entails ascribing attribution (McArthur, 1972); and (c) by virtue of being proximal to the event, the messenger is a prime target for such ascriptions (e.g., Kelley, 1973). In turn, we posit that this ascription of malevolent motives causes recipients to dislike that messenger.

We posit this psychological process to contribute to the proposed "shooting the messenger" effect, but we do not contend it to be the sole underlying driver. In situating our process account within the broader literature, we consider two related yet distinct dimensions on which many psychological processes vary: associative-propositional and automatic-controlled. Associative processes are characterized by affective reactions produced by co-occurrence of stimuli, whereas propositional processes are characterized by evaluative judgments based on syllogistic inferences (Gawronski & Bodenhausen, 2006). Our account invokes both motivated causal reasoning and attributions—hallmarks of propositional accounts—thus, we posit propositional processes to play a role in the tendency to dislike innocent bearers of bad news. In invoking propositional processes, our process account is thus conceptually distinct from the associative process posited to underlie Manis et al.'s (1974, p. 87) Study 2 and documented to underlie Spontaneous Trait Transference and related phenomena (Carlston & Skowronski, 2005; Manis et al., 1974; Molet, Stagner, Miller, Kosinski, & Zentall, 2013; Orghian, Garcia-Marques, Uleman, & Heinke, 2015; Skowronski et al., 1998; Wells, Skowronski, Crawford, Scherer, & Carlston, 2011). This is not to say that associative processes are necessarily inactive in the phenomenon we document; our contention is that propositional processes play a role.

On the automatic-controlled dimension, automatic processes are characterized by shallow, unconscious thought, whereas controlled processes are characterized by deeper, more elaborate and effortful mental activity (Bargh, 1994; Evans, 2008; Ferreira, Garcia-Marques, Sherman, & Sherman, 2006). Although deliberation can be implicated in attributional processes (and automaticity in associative processes), it need not be (Carlston & Skowronski, 2005; Gawronski & Bodenhausen, 2006). Indeed, research suggests that causal explanations, even fallacious ones, are sometimes generated effortlessly, seemingly automatically (Hastie, 1984; Sloman, 2014; Weiner, 1985). This duality is reflected in research on the relationship between cognitive effort (a hallmark of controlled processes) and motivated reasoning phenomena. While some research suggests that when people are motivated to interpret information in a certain way (e.g., to bolster their political beliefs), they engage in more cognitive effort to do so relative to when such motivation is dampened (Ditto & Lopez, 1992; Kahan, 2013; Petersen, Skov, Serritzlew, & Ramsøy, 2013; Redlawsk, 2002), other work suggests the opposite (e.g., Balcetis & Dunning, 2006; Bruner & Goodman, 1947; Wong & Weiner, 1981); for example, Callan, Sutton, and Dovale (2010) found motivated causal attribution to be enhanced under high cognitive load. These conflicting results make it unclear whether our proposed motivational sense-making account should be mentally effortful or not. And indeed according to a comprehensive review (Park, 2010), sense-making processes have been inconclusive on this distinction; both automatic and controlled processes have been invoked to explain meaning-making phenomena (Boehmer, Luszczynska, & Schwarzer, 2007; Creamer, Burgess, & Pattison, 1992; Folkman, 1997; Gray, Maguen, & Litz, 2007; Horowitz, 1986; McIntosh, Silver, & Wortman, 1993; Moulds & Bryant, 2004; Smith, Haynes, Lazarus, & Pope, 1993).

Therefore, in ascertaining the distinctiveness of our account, we focus on the former, propositional-associative distinction, testing whether our process account holds when controlling for a complementary, associative process account. Specifically, we test whether the belief that the messenger's motives are malevolent is correlated with dislike of that messenger, and whether this correlation holds when controlling for an associative process measure. Moreover, we test whether our effect is moderated by a motivational factor invoked specifically by propositional accounts: consistency, or the notion that when people encounter information that violates their expectations, they turn to propositional reasoning processes to resolve that inconsistency (Gawronski & Bodenhausen, 2006).

Overview of Studies

Eleven experiments provide support for our hypotheses. Study 1 is a preregistered experiment (https://osf.io/yccbj/) documenting the basic effect. A second set of studies points to the specificity of the effect: Study 2A shows that it is unique to the (innocent) messenger, and not mere bystanders. Study 2B shows that it is distinct from merely receiving information that one disagrees with. Then, in four sets of studies that use complementary methods, we provide evidence consistent with the sense-making attributional process posited to underlie the effect. First, we show that receiving bad news activates the desire to sense-make (Study 3A), and that, in turn, activating the desire to sense-make enhances the tendency to dislike bearers of bad news (Study 3B). Next, stemming from the idea that the desire to sense-make is heightened for unexpected outcomes, Study 4 shows that the dislike of bearers of bad news is pronounced when that bad news is unexpected. Consistent with the notion that people fulfill the desire to sense-make by attributing agency to entities adjacent chance events, we then show that messenger dislike is correlated with the belief that the messenger had malevolent motives (Studies 5A, 5B, and 5C). Studies 6A and 6B go further, manipulating messenger motives independently from news valence to suggest its causal role in our process account: The tendency to dislike bearers of bad news is mitigated when recipients are made aware of the benevolence of the messenger's motives.

In online studies in which data collection is quick and inexpensive, we targeted a minimum sample size of 75 participants per between-subjects condition, consistent with recent thinking on appropriate sample sizes (Simmons, 2014). We prespecified our sample sizes based on this guidance rather than on predicted effect sizes because each of our studies considered a different aspect of the phenomenon, limiting our potential to confidently estimate a priori effect size. In the lab experiment (Study 1), we sought to collect as much data as we could in three days of sessions. We disclose all manipulations and measures. Our Institutional Review Board approved the studies. No data were excluded unless otherwise indicated. Attrition rates were low (never above 6%) and did not differ by experimental condition. Data and stimuli are posted at: https://osf.io/yccbj/.

Study 1: Basic Effect

Study 1 assesses people's (dis)like of messengers who, through no fault of their own, deliver either good or bad news. The study was a two condition between-subjects design manipulating the valence of the news (*good* vs. *bad*).

Method

This study was the first of a series of unrelated studies run in 90-min lab sessions of 20–36 people during which each participant was seated at their own private cubicle. Participants (N = 241, 49% male, M_{age} = 30.8 years, SD = 12.1) received $25 for the session, plus the potential for a $2 bonus. The experiment had two conditions: one in which a bonus was earned (good news condition) and one in which a bonus was not earned (bad news condition). Participants were told that they would be participating in a random number drawing in which they could earn a $2 bonus. First, the following information appeared on each participant's computer monitor:

> On the next screen, you will be asked to select a number from one to 10. After you do this, a researcher will draw a number from one to 10 from a hat. If the researcher draws an even number, AND you chose an even number, then you will earn a $2 bonus. But if you choose an odd number in this case you will NOT earn a $2 bonus. Similarly if the researcher draws an odd number, AND you chose an odd number, then you will earn a $2 bonus. But if you chose an even number in this case, then you will NOT earn a $2 bonus.

Once all participants had entered a number into the computer, their attention was turned to the front of the room, where two research assistants stood. In plain sight of all participants, one of the research assistants pulled a slip of paper from a hat and, without reading the slip, immediately and saliently handed it over to the other research assistant, who served as the messenger. The research assistant who pulled the slip of paper from the hat did not read the slip to ensure that participants learned the news directly from the messenger. The messenger research assistant opened the slip of paper and announced the following, which was tailored according to whether an odd versus even number was drawn:

> If you wrote down an even [odd] number, then I have bad news for you: You did not win the $2 bonus because an odd-numbered [even-numbered] slip was drawn. If you wrote down an odd [even] number, then I have good news for you: you won the $2 bonus because an odd-numbered [even-numbered] slip was drawn. [Messenger holds up slip of paper with printed number visible]. Please proceed with the online survey—we have a few questions for you about this experience. Please enter the code abc to continue.

Thus the number drawing served as our method of randomizing participants to receive either good or bad news. The two research assistants and their roles were held constant across sessions.

Next, participants indicated whether the research assistant had drawn an even or an odd number. They were then directed to a page that said: "We are interested in your impression of the researcher that broke the good [bad] news that you won [did not win] the $2 bonus," followed by a page on which they responded to the item: "The researcher who announced what number was drawn is likeable," on a 10-point scale with endpoints labeled *not at all* and *extremely* (cf., Brooks, Gino, & Schweitzer, 2015). This and all studies concluded with basic demographic questions.

Results

Participants' number choices ranged from one to 10 (M = 5.48, SD = 2.44, *Median* = 6, *Mode* = 7). Random assignment worked:

48% of participants won the bonus (*NS* from 50%), and hence received good news; the rest received bad news.

As hypothesized, the messenger was judged to be significantly less likable when delivering bad news relative to good news (M_{bad} = 6.26, SD = 2.34; M_{good} = 7.21, SD = 2.08), $t(239)$ = 3.32, p = .001, d = 0.43, BF_{10} = 23.81.

In sum, Study 1 provides evidence that people derogate messengers of bad news, even when such messengers clearly have had no hand in the unfortunate event's occurrence.

Studies 2A and 2B: Specificity of Effect

Studies 2A and 2B test the specificity of the effect. Study 2A tests whether it is specific to the (innocent) messenger, and not mere bystanders. In addition, Study 2A moves beyond the rarefied number drawing set-up from Study 1 to demonstrate the basic effect in a more contextually rich scenario. Study 2B tests whether the effect is distinct from receiving counter-attitudinal information (i.e., a message that recipients disagree with).

Study 2A

Study 2A was a 2 (News Valence: *Good* vs. *Bad*; Between-Subjects) × 2 (Rating Target: *Messenger* vs. *Bystander*; Within-Subjects) mixed design.

Method

Prospective participants (N = 328 people from Amazon's Mechanical Turk; hereafter referred to as "MTurk workers") were first asked "Have you or an immediate family member of yours ever been diagnosed with cancer?" those answering "*yes*" were screened out per IRB requirement. Those answering "*no*" (N = 150, 56% male, M_{age} = 33.4 years, SD = 10.9) imagined themselves as patients attending a medical appointment to learn whether a recent biopsy had tested positive for skin cancer. This scenario was developed to provide relevant yet minimally threatening medical information as most patients perceive skin cancer as nonlife threatening (Rutten, Hesse, Moser, McCaul, & Rothman, 2009). The scenario invoked two nurses: One of the nurses was an innocent messenger who delivered the test result; the other nurse was an innocent bystander who was simply handling the appointment calendar that day. Specifically, participants were told:

> One week ago, you received a biopsy to test for skin cancer. The results are now in, so you are called into your medical clinic. Your nurse, Nurse Johnson, tells you: "I have bad [good] news: your biopsy tested positive [negative]. This means that the mole is [NOT] cancerous. When you leave please schedule a routine follow-up appointment—just let Nurse Smith know on the way out. Nurse Smith is handling the scheduling today."

Next, for each nurse, participants rated the statement: "I like Nurse Smith [Johnson]" on a scale from 1 (*strongly disagree*) to 9 (*strongly agree),* with the midpoint labeled *neither agree nor disagree*. Between-subjects, we counterbalanced both the ascription of nurse to role and the order in which the nurses were rated (order did not matter; the results collapse across this factor).

Participants finished by completing an attention check in which they were tasked with identifying the test result from their scenario (98% passed; in this and all studies results hold when analyses are restricted to those who passed any administered checks) and indicating whether they had ever been tested for cancer (results hold when controlling for whether participants had ever been tested for cancer; 19% had).

Results

A two-way mixed analysis of variance (ANOVA) with news valence condition (*Good* vs. *Bad*) as the between-subjects factor and target (*Messenger* vs. *Bystander*) as the within-subjects factor revealed a main effect and an interaction. There was a main effect of news valence: likability was lower in the bad news condition (M_{bad} = 5.15, SD_{bad} = 1.59) relative to the good news condition (M_{good} = 6.19, SD_{good} = 1.43), $F(1, 148) = 23.14$, $p < .001$, $\eta^2 = .14$. Critically however, an interaction revealed that this main effect was driven entirely by judgments of the messenger $F(1, 148) = 41.61$, $p < .001$, $\eta^2 = .22$ (see Figure 1). Specifically, as predicted, the messenger was liked less when she broke bad news (M_{bad} = 4.87, SD_{bad} = 1.82) relative to when she broke good news (M_{good} = 6.61, SD_{good} = 1.42), $t(148) = 6.51$, $p < .001$, d = 1.06, BF_{10} = 8178797. By contrast, ratings of the scheduler nurse were insensitive to news valence—they were similar regardless of whether good (M_{good} = 5.77, SD_{good} = 1.33) versus bad news (M_{bad} = 5.43, SD_{bad} = 1.28) had been conveyed, $t(148)$ = 1.58, p = .12, d = 0.26, BF_{01} = 1.82.

In sum, Study 2A demonstrates the specificity of the effect: Dislike is directed at innocent messengers of bad news, and not innocent bystanders. That bystander perceptions were unaffected is also broadly consistent with previous work showing the distinctiveness of perceptions of communicators versus those merely present while information is being conveyed (Crawford, Skowronski, & Stiff, 2007; Crawford, Skowronski, Stiff, & Scherer, 2007).

Study 2B

Study 2B provides further evidence of effect specificity by showing that it is distinct from merely receiving information with which one disagrees. Participants' bonus payment was tied to one of two possible statements a researcher had been given to read aloud. Between-subjects, we manipulated two factors: (a) whether the statement advocated for versus against marijuana legalization;

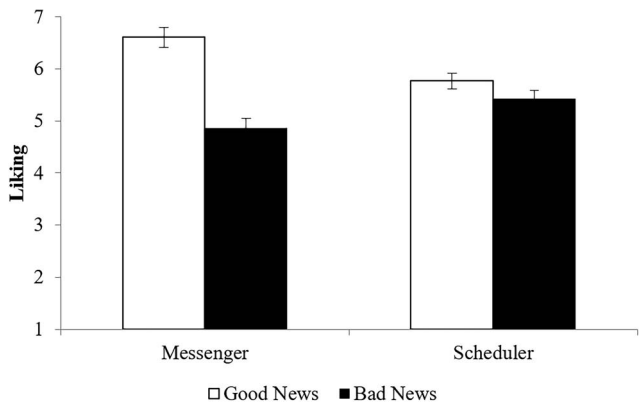

Figure 1. Bad news reduces liking of innocent messengers, not innocent bystanders (Study 2A). Error bars represent ±1 *SE* of the mean.

hence the messenger conveyed something that was either consistent with, or inconsistent with, participants' attitudes; and (b) the ascription of news valence to the statement: The bonus was given either when the attitude-consistent statement was read, or when the attitude-inconsistent statement was read. Study 2B was therefore a 2 (Attitude Consistency: *Consistent* vs. *Inconsistent*) × 2 (News Valence: *Good* vs. *Bad*) between-subjects design. We predicted the effect of news valence on messenger likability to hold both among participants receiving the attitude-consistent statement, as well as among those receiving the attitude-inconsistent statement.

In the studies so far, we did not explicitly convey to participants that the messenger was assigned the role (and therefore did not choose to convey the bad news). As a result, and especially considering that in everyday life messengers sometimes have the choice to speak up or stay quiet, participants may have inferred our messenger to have opted into the role. And, for messengers assumed to have chosen their fate, it could be reasonable to question why they did so, and whether it is indicative of bad motives: is the messenger breaking bad news because he benefits in some way from others' misery? Thus, to the extent participants believed the messenger to have chosen the role, it could be reasonable for them to dislike that messenger. Study 2B (and later Study 5C) addresses this issue by explicitly conveying that the messenger was assigned, as opposed to had chosen, his fate, and includes comprehension checks to ensure participants noticed this fact.

Method

First, prospective participants (N = 580 MTurk workers) indicated whether they were "*pro marijuana legalization*," "*anti-marijuana legalization*," or "*neutral/undecided*" (cf., Manis et al., 1974). Those who selected "*neutral/undecided*" (n = 71, 12% of 580) were screened out; those remaining (N = 509; 59% male, M_{age} = 34.3 years, SD = 9.7) received $0.50 and the chance to win a $0.10 bonus.

Next, participants were told:

> You have already indicated whether you are generally in favor of or opposed to marijuana legalization. Next, a research assistant will read a statement that her boss gave her to read. The statement will be either pro legalization or anti legalization. If the opinion in the statement matches your own opinion about the legalization of marijuana (for or against), you will [will NOT] earn an additional $0.10. If the opinion in the statement does NOT match your own opinion about the legalization of marijuana (for or against), you will NOT [will] earn an additional $0.10.

On the following page, participants watched a video in which the research assistant read the statement, which was tailored based on whether the participant was pro or against marijuana legalization. In the video, the researcher started by saying:

> Hello. My boss gave me this envelope with a statement inside to open and read. The statement inside will either be pro marijuana legalization, or anti marijuana legalization.

Next, the video depicted the research assistant opening the envelope, looking at the paper inside, and saying:

> I have good [bad] news for you. My boss gave me a pro [anti] statement to read. That means you earned [did not earn] the $0.10 bonus. Here's the summary . . .

Then, the research assistant read aloud the statement on the paper (which was either a pro-legalization or anti-legalization; Appendix A).

Next, participants rated the item "the researcher who read the statement is likeable" on a scale from 1 (*not at all*) to 10 (*extremely).* Participants then completed three comprehension checks in which they were tasked with identifying whether: (a) the researcher had asked to break the news versus was assigned to break it (92% passed); (b) the statement was consistent versus inconsistent with the participant's attitudes (92% passed); and (c) they earned the bonus (i.e., whether they had received good vs. bad news; 97% passed).

Results

A two-way ANOVA with attitude consistency (*Consistent* vs. *Inconsistent*) and news valence (*Good* vs. *Bad*) as between-subjects factors revealed two main effects. First, replicating Manis et al. (1974), there was a main effect of attitude consistency: messengers conveying information inconsistent with recipients' attitudes were deemed less likable relative to those conveying attitude-consistent information ($M_{inconsistent}$ = 6.81, $SD_{\text{inconsistent}}$ = 2.21; $M_{consistent}$ = 7.39, $SD_{\text{consistent}}$ = 1.87), $F(1, 503) = 10.84$, $p = .001$, $\eta^2 = .02$. Importantly however, there was also a main effect of news valence: independent from whether messengers conveyed attitude-consistent versus inconsistent information, messengers were deemed less likable when they conveyed bad news relative to when they conveyed good news (M_{bad} = 6.55, SD_{bad} = 2.07; M_{good} = 7.64, SD_{good} = 1.91), $F(1, 503) = 38.39$, $p < .001$, $\eta^2 = .07$. Put differently, the tendency to dislike bearers of bad news held both when the participant received an attitude-consistent message ($M_{bad\ consistent}$ = 6.97, $SD_{\text{bad consistent}}$ = 1.87; $M_{good\ consistent}$ = 7.80, $SD_{\text{good consistent}}$ = 1.79), $t(249) = 3.62$, $p < .001$, $d = 0.45$, $BF_{10} = 61.28$, as well as an attitude-inconsistent message ($M_{bad\ inconsistent}$ = 6.14, $SD_{\text{bad inconsistent}}$ = 2.19; $M_{good\ inconsistent}$ = 7.48, $SD_{\text{good inconsistent}}$ = 2.02), $t(254) = 5.08$, $p < .001$, $d = 0.63$, BF_{10} = 18,025.09. There was no interaction $F(1, 503) = 2.04$, $p = .15$, $\eta^2 < .01$.

In sum, Study 2B demonstrates that people's dislike of bearers of bad news is distinct from receiving counter-attitudinal information.

Studies 3A and 3B: The Role of Sense-Making: Causal Chain

Studies 1 and 2 demonstrate that innocent messengers of bad news are disliked. We have posited that underlying this effect is a desire to make sense of unwanted outcomes. Studies 3A and 3B test this proposition using a "causal chain" approach (Spencer, Zanna, & Fong, 2005). Specifically, Study 3A tests whether receiving bad news increases people's desire to sense-make. Next, Study 3B tests whether heightening the desire to sense-make makes people particularly likely to dislike innocent bearers of bad news.

Study 3A

Study 3A was a two condition between-subjects design in which we manipulated news valence (*Bad* vs. *Control*) and measured the

extent to which participants wanted to make sense of that news. Researchers have measured sense-making in a variety of different ways (see Park, 2010 for a summary). One common approach, which we also adopt here, is to ask people directly.

Method

Participants (N = 199 MTurk workers; 54.3% male, M_{age} = 35.2 years, SD = 9.7) were asked to imagine a plane-boarding scenario, whereby they were "at the airport, sitting at Gate B5, which is the gate for your flight." Participants in the bad news condition were told:

> The gate agent makes the following announcement: "This is an announcement that this flight is delayed by 2 hours: your flight will depart two hours later than scheduled."

Participants in the control condition were told:

> The gate agent makes the following announcement: "This is an announcement that this flight has had a gate change: your flight will depart from Gate B6—one gate over from Gate B5."

Thus, although the gate agent gave no explanation for the news in both conditions, we expected the desire to explain the news—that is, to sense-make—would be stronger in the bad news condition. (In a conceptual replication of this study reported in Appendix B, we used a different control condition—one in which the flight was to begin boarding in 5 minutes. The result replicated that described below).

Next, we measured the desire to sense-make by asking participants to rate the statement: "I desire to make sense of this news" on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*; cf., Cleiren, 1993; Eton, Lepore, & Helgeson, 2005; Jind, 2003). Finally, participants completed a multiple choice comprehension check in which they identified what the gate agent had announced (96% passed). Participants also indicated whether they had flown on a commercial airplane (92% had).

Results

The desire to sense-make was stronger among participants in the bad news condition relative to those in the control condition (M_{bad} = 5.42, SD_{bad} = 1.33; $M_{control}$ = 4.92, SD_{control} = 1.77), $t(197) = 2.27$, $p = .024$, $d = 0.32$, $BF_{10} = 1.03$.

In sum, Study 3A provides evidence of the first step of our process account, namely, that bad (vs. neutral) news prompts people to want to make sense of it.

Study 3B

Study 3B uses a similar plane-boarding scenario as Study 3A. However, in Study 3B, all participants received bad news because we sought to test whether the desire to sense-make prompts people to dislike bearers of bad news. Thus, the study was a two condition between-subjects design in which we manipulated the desire to sense-make (*Heightened* vs. *Control*). The sense-making literature provides many exemplars and thus, much guidance on how to *measure* sense-making attempts; there is relatively scant guidance on how to *manipulate* the desire to sense-make. Indeed, in a comprehensive review, Park (2010) acknowledged the need for prospective studies—studies exploring how exogenous changes in the desire to sense-make prompt sense-making. Fortunately however, theorizing on the determinants of sense-making is well-developed. Thus in Study 3B we devised a sense-making manipulation by varying the extent to which the plane-boarding scenario featured three factors theorized to activate the desire to sense-make through violating the belief that the world is predictable, comprehensible, and just. As described below, we then pilot tested whether this manipulation modulated the desire to sense-make, and not simply negative affect.

Method

Participants (N = 300 MTurk workers; 47.0% male, M_{age} = 36.5 years, SD = 11.9) were asked to imagine a plane-boarding scenario in which, as in Study 3A, they were "at the airport, sitting at Gate B5, which is the gate for your flight." All participants were given bad news: Their flight was delayed substantially. For half of participants, we heightened the desire to sense-make by telling participants:

> Air traffic control has informed us that we have to give our departure slot to a different flight deemed to be higher priority. As a result, your flight is delayed by 3 hours. This other flight was initially scheduled to depart after your flight.

We thought that having one's departure slot co-opted by another flight, and for no apparent reason, would violate the commonly held beliefs that the world is just, predictable, and comprehensible; and thus, that the desire to sense-make would be heightened in this scenario. In the control condition, participants were told:

> Air traffic control has informed us that there is bad weather. As a result, your flight is delayed by 3 hours. All flights will be departing in the departure order as scheduled.

Thus, although participants also faced a three hour delay, its rationale was less likely to induce the desire to sense-make; flights would take off in the preset order, consistent with the beliefs that the world is just, predictable, and comprehensible.

Next, participants rated the statement: "The gate agent who made the announcement is likeable" on a scale from 1 (*strongly disagree*) to 9 (*strongly agree*). Finally, participants completed a multiple choice comprehension check in which they identified what the gate agent had announced (96% passed). Participants also indicated whether they had flown on a commercial airplane (93% had).

We conducted a pilot test to see whether our manipulation affected the desire to sense-make as intended. Pilot test participants (N = 299, 59.5% male, M_{age} = 35.6 years, SD = 10.8) were shown the same stimuli as the main experiment; they were randomized to read either the control announcement or the announcement designed to heighten the desire to sense-make. We measured their desire to sense-make as in Study 3A. To test for the specificity of this manipulation—that it was inducing a desire to sense-make and not simply negative affect—we also administered the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). Between-subjects, we counterbalanced the order of administration of the two outcome measures (the results are robust to order; thus the results reported below collapse across this factor).

Results of the pilot study indicated that in the sense-making condition, in which participants were given an unpredictable, seemingly unjust reason for the delay, participants expressed greater agreement with the item "I desire to make sense of this delay" relative to participants in the control condition ($M_{sense\text{-}make}$ = 5.39, $SD_{\text{sense-make}}$ = 1.51; $M_{control}$ = 4.84, SD_{control} = 1.58), $t(297) = 3.05$, $p = .003$, $d = 0.36$, $BF_{10} = 10.29$). There was no significant difference between conditions in negative affect (PANAS negative affect scores: $M_{sense\text{-}make} = 19.98$, $SD_{\text{sense-make}} = 7.60$; $M_{control} = 19.64$, $SD_{\text{control}} = 9.41$), $t(297) = .34$, $p = .73$, $d = 0.04$, $BF_{10} = 7.43$. In addition, the difference in sense-making held when controlling for negative affect, $F(1, 298) = 9.50$, $p = .002$.

Results

Participants in the sense-making condition liked the gate agent less than those in the control condition ($M_{sense\text{-}make}$ = 3.89, $SD_{\text{sense-make}}$ = 1.19; $M_{control}$ = 4.23, SD_{control} = 1.22), $t(298) = 2.51$, $p = .013$, $d = 0.28$, $BF_{10} = 2.52$.

In sum, Studies 3A and 3B provide evidence of the role of sense-making in our account using a causal chain approach. Study 3A suggests that bad news activates the desire to sense-make. Study 3B suggests that the desire to sense-make increases the tendency to derogate innocent bearers of bad news. Importantly however, this is not to say that the desire to sense-make was necessarily inactive in the control condition of Study 3B; indeed, our account predicts that a three hour weather delay—a negative, uncontrollable event—might also trigger a desire to sense-make, manifesting in messenger dislike. In Study 4, we simply give people bad news, without experimentally inducing the desire to sense-make, and show that people exhibit greater dislike for the messenger relative to when they receive good news. However, consistent with our account, Study 4 also shows that this tendency is enhanced via a manipulation designed to heighten the desire to sense-make—that is, when the bad news is unexpected.

Study 4: The Role of Sense-Making: Moderation

Our account suggests that people are prone to derogating bearers of bad news in part because they are motivated to make sense of unwanted outcomes. Studies 3A and 3B provide some evidence of the role of sense-making in our account; Study 4 considers further evidence. Again, as in Study 3B, we sought to manipulate the desire to sense-make, and turned to previous research and theorizing to do so. Previous work suggests that people's need for sense-making is heightened for unexpected outcomes (Bettman & Weitz, 1983; Clary & Tesser, 1983; Kanazawa, 1992; Pyszczynski & Greenberg, 1981; Weiner, 1985; Wong & Weiner, 1981). Thus, if the "shooting the messenger" effect is undergirded by a sense-making process, it should be pronounced when people receive unexpectedly bad news. Specifically, our account predicts that the tendency to derogate bearers of bad news will be heightened when the unwanted outcome is unexpected (i.e., when they expect good news but instead receive bad news). Study 4 tests this idea, operationalizing expectations in terms of the likelihood of the unwanted event's occurrence (e.g., Lau & Russell, 1980). Specifically, in Study 4, using an instantiation of the medical scenario paradigm, we inform participants that there is either a relatively high or low likelihood of receiving bad news (i.e., of testing positive for skin cancer). The study was a 2 (News Valence: *Good* vs. *Bad*) × 2 (Bad News Expectation: *Bad News Expected* vs. *Bad News Unexpected*) between-subjects design.

Method

Prospective participants (N = 1,175 MTurk workers) were first asked "Have you or an immediate family member of yours ever been diagnosed with cancer?" those answering "*yes*" were screened out per IRB requirement. Those answering "*no*" (N = 401) imagined themselves as patients attending a medical appointment to learn whether a recent biopsy had tested positive for skin cancer, as in Studies 2A and 3B. Between-subjects, we manipulated two factors: whether participants received good versus bad news, and whether bad news was expected versus unexpected. To manipulate expectations, we varied participants' beliefs about the likely outcome of the biopsy. In the "bad news expected" conditions, they were told:

> One week ago, you received a biopsy to test for skin cancer. When you received the biopsy, you were told that in cases similar to yours, the skin sample is usually found to be cancerous. So in other words imagine you were told that the biopsy you're getting would likely reveal that you have cancer.

In the "bad news unexpected" conditions, they were told:

> One week ago, you received a biopsy to test for skin cancer. When you received the biopsy, you were told that in cases similar to yours, the skin sample is usually found to be NOT cancerous. So in other words imagine that you were told that even though you're getting a biopsy, it's very unlikely that you actually have cancer.

In both cases, we incorporated empathy into the messenger's script. Specifically, in the good news conditions, participants were told:

> Your doctor, Dr. Johnson, is very empathic. He tells you: "I have good news: your biopsy tested negative. This means that the mole is NOT cancerous. I am so glad. I feel happy for you. It must be great to be the recipient of this news."

In the bad news conditions, participants were told:

> Your doctor, Dr. Johnson, is very empathic. He tells you: "I have bad news: your biopsy tested positive. This means that the mole is cancerous. I am so sorry. I feel for you. It must be difficult to be the recipient of this news."

Next, participants rated the statement "The doctor who gave me this news (Dr. Johnson) is likeable" on a scale from 1 to 10.

Finally, participants completed two attention checks in which they were tasked with identifying the expectation that their biopsy would test positive for cancer (94% passed) and the test result from their scenario (98% passed), then indicated whether they had ever been tested for cancer (24% had), and completed some basic demographic information.

Results

Overall, bearers of bad news were liked less than bearers of good news, replicating our basic effect (M_{bad} = 6.05, SD_{bad} =

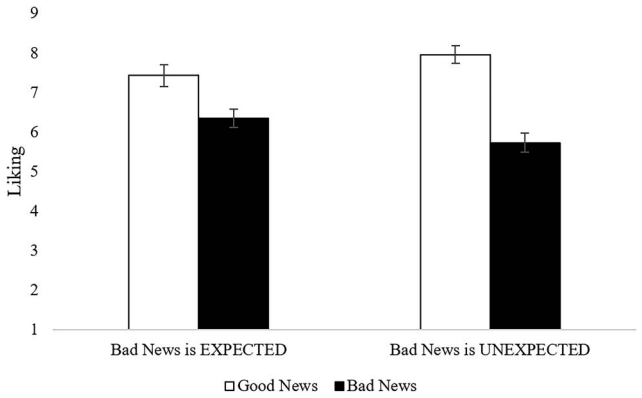

Figure 2. News recipients are particularly likely to derogate bearers of bad news when that bad news is unexpected (Study 4).

2.36; M_{good} = 7.70, SD_{good} = 2.46), $F(1, 400) = 47.39$, $p < .001$, $\eta^2 = .11$. There was no significant main effect of expectations on liking ($M_{BadExpected}$ = 6.88, $SD_{\text{BadExpected}}$ = 2.55; $M_{BadUnexpected}$ = 6.87, $SD_{\text{BadUnexpected}}$ = 2.56), $F(1, 400) = 0.03$, $p = .863$, $\eta^2 < .01$. Importantly, these effects were qualified by a significant News Valence × Expectations interaction, $F(1, 400) = 5.71$, $p = .017$, $\eta^2 = .013$. Although participants derogated bad news messengers even when bad news was expected (M_{bad} = 6.35, SD_{bad} = 2.31; M_{good} = 7.43, SD_{good} = 2.68; left side of Figure 2), $t(199) = 3.06$, $p = .002$, $d = 0.43$, $BF_{10} = 11.51$, the effect was stronger when bad news was unexpected (M_{bad} = 5.73, SD_{bad} = 2.39; M_{good} = 7.96, SD_{good} = 2.22; right side of Figure 2), $t(198) = 6.82$, $p < .001$, $d = 0.96$, $BF_{10} = 74852802$.

Studies 5A, 5B, and 5C: Ascription of Motives: Mediation

Studies 3A, 3B, and 4 are consistent with our proposition that the desire to sense-make breeds dislike of messengers bearing bad news (Study 3B). Why might the desire to sense-make prompt people to dislike of bearers of bad news? We propose that people make sense of the unwanted outcome by (erroneously) attributing agency to the messenger. As a result, instead of perceiving bearers of bad news as innocent messengers, recipients might perceive them as having malevolent motives—that they hoped for, or even tried to cause, the undesired outcome. In turn, believing the bad news messenger to have malevolent motives could cause recipients to dislike that messenger. We test this idea in Studies 5A, 5B, and 5C. Specifically, we test whether messenger dislike is correlated with the belief that that messenger had malevolent motives.

Study 5A

Study 5A uses a number drawing paradigm as in Study 1 but also measures recipients' perceptions of the messenger's motives. Study 5A also includes a neutral news condition to test whether there is a specific effect of disliking bad news messengers (as opposed to merely liking bearers of good news). Study 5A was therefore a three condition between-subjects design in which we manipulated news valence (*Bad* vs. *Neutral* vs. *Good*) and measured participants' perceptions of the messenger's motives and likability.

Method

Participants (N = 304 MTurk workers; 48% male, M_{age} = 36.1 years, SD = 10.0) were guaranteed a $1 payment and endowed with an additional $0.10 for a draw. Participants were told that they would be asked to select between the numbers one, two, or three, and that one of these numbers would then be drawn at random. Further, they were told that if their selected number was drawn, they would earn an additional $0.10 (good news condition), and that if it was not drawn, they would either retain (neutral news condition) or lose (bad news condition) the $0.10 with which they had been endowed. Participants were then shown a table indicating the payoff for each of the nine possible combinations of participant-selected versus randomly drawn numbers (see Appendix C). Prior to selecting a number, participants were required to correctly answer two quiz questions about the payment structure (see Appendix D).

After selecting a number, participants were shown a prerecorded video portraying a number drawing and a messenger conveying bad, neutral, or good news, depending on the combination of the participant-selected number and the randomly drawn number. The draw was not rigged; the number was drawn at random. To transparently convey the legitimacy of the drawing to participants, the video consisted of a single take in which a research assistant was shown displaying an empty bag, writing the numbers one, two, and three on slips of paper, putting them into the empty bag, drawing one out while looking away, and announcing the number the participant chose, the number drawn, and the resulting outcome (i.e., good, neutral, or bad).

Given that the messenger referred to the number that the participant had selected and that we randomized whether the winning number was a one, two, or three, we created nine videos that were otherwise identical except for the numbers and the manipulation-specific information. We randomized the number drawing, and hence, the valence of the news, using the following procedure: after having selected their number, participants were shown three identical screen shots, each representing one of the three possible videos they could view, one in which a one was drawn, one in which a two was drawn, and one in which a three was drawn. For example, if a participant had selected the number one, she would then choose from three videos, in which the winning number was either a one (good news condition), two (neutral news condition), or three (bad news condition). Critically, because the screen shots were nearly identical, at the time of choosing a video, participants did not know which number would be drawn in the video they chose. This procedure thus served to both randomize the number drawn and to legitimize the draw (by letting participants choose one of the three videos, rather than imposing one on them).

Next, participants rated the statement "I like the drawer" on a scale from 1 (*strongly disagree*) to 9 (*strongly agree*) and indicated their perceptions of the messenger's motives by completing the statement "I think the drawer . . ." on a sliding scale from 1 (*tried to draw the losing number*) to 100 (*tried to draw the winning number*), with the midpoint labeled "*was not trying to draw any number in particular*." The order of these measures was counter-

balanced (order did not matter; we therefore collapse across it in the results).

Results

The randomization procedure produced roughly equivalent sample sizes between conditions (bad news condition: $n = 102$; neutral news condition: $n = 100$; good news condition: $n = 102$).

Liking. Messenger liking differed by condition $F(2, 301) = 40.64$, $p < .001$, $\eta^2 = .21$. Specifically, participants who received bad news ($M_{bad} = 5.21$, $SD_{\text{bad}} = 2.21$) liked the drawer the least, followed by those who received neutral news ($M_{neutral} = 6.46$, $SD_{\text{neutral}} = 1.63$), and those who received good news ($M_{good} = 7.51$, $SD_{good} = 1.57$). All pairwise comparisons were significant at the $p < .01$ level (effect sizes: $d_{\text{bad vs. neutral}} = 0.65$; $d_{\text{neutral vs. good}} = 0.66$; $d_{\text{bad vs. good}} = 1.20$).

Motives. Perceptions of the messenger's motives differed by condition $F(2, 301) = 11.23$, $p < .001$, $\eta^2 = .07$. Specifically, participants who received bad news ($M_{bad} = 45.01$, $SD_{\text{bad}} = 21.86$) were most likely to think that the messenger tried to draw the losing number relative to those who received neutral news ($M_{neutral} = 52.64$, $SD_{\text{neutral}} = 13.81$), and those who received good news ($M_{good} = 55.95$, $SD_{\text{good}} = 13.30$). Both of these pairwise comparisons were significant at the $p < .01$ level (effect sizes: $d_{\text{bad vs. neutral}} = 0.41$; $d_{\text{bad vs. good}} = 0.60$). Perceptions of motives were equivalent across the good and neutral conditions ($p = .34$, $d = 0.24$).

To test whether perceptions of messenger motives were correlated with the effect, we used the bias-corrected bootstrap method recommended by Preacher and Hayes (2004), with the independent variable coded as 1 = bad news, and 0 = good or neutral news. The 95% confidence interval of the indirect mediation model did not contain zero [−.433, −.086], indicating that including perceptions of messenger motives as a mediational variable fits the data (see Figure 3).

In sum, Study 5A suggests that people dislike bad news messengers because they believe such messengers to have malevolent motives. By including a neutral condition, Study 5A additionally demonstrates that there is indeed a specific derogation of bearers of bad news, for they are liked less than bearers of neutral news. Interestingly, there also seems to be a likability boost for messengers of good news, although perceptions of their motives are unaffected relative to the neutral news condition.

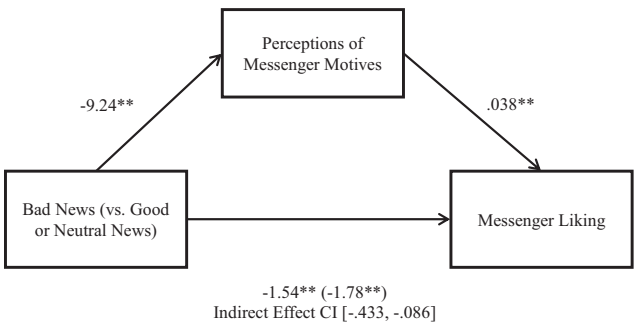

Figure 3. Including messenger motives as a mediational variable fits the data (Study 5A). ** $p < .001$.

Study 5B

Study 5B provides evidence of mechanism specificity by testing whether the relationship between beliefs about the messenger's motives and dislike of that messenger holds when controlling for an associative process measure. Study 5B uses a medical scenario as in Study 2A, in which participants imagined receiving either good news or bad news about their health. Prior to collecting the outcome measure (messenger likability), we administered both an ascription of motives process measure as well as an associative process measure (cf., Gawronski & Walther, 2008; Payne, Cheng, Govorun, & Stewart, 2005).

Method

Pilot test. Given that a positive test result necessitates more doctor visits and treatment (i.e., more revenue for the doctor), participants, especially those in the bad news (i.e., positive test result) condition, may perceive the doctor messenger to have a conflict of interest, providing a valid reason for inferring the messenger to have malevolent motives. We therefore tested the stimuli to ensure that this was not the case. Participants ($N = 101$ MTurk workers, 57% male, $M_{\text{age}} = 33.1$ years, $SD = 10.1$) were presented with the same medical scenario as in the main study, in which they imagined receiving either bad versus good news. But instead of asking them to rate messenger likability, we asked participants in the bad [good] news condition: "Do you think you are receiving this news because of a conflict of interest on Dr. Johnson's part (i.e. Do you think Dr. Johnson interpreted the result as being positive [negative] because he has a financial interest in you [not] having cancer, and not because you clearly [do not] have cancer)?," using a 10-point response scale with endpoints labeled *no, definitely not* and *yes, definitely.* Results indicated that even when asked directly in this manner, only seven (6.9%) of participants interpreted the news to be driven by a conflict of interest, and this perception did not differ between the good and bad news conditions ($\chi^2 = 1.20$, $p = .44$).

In the main study, prospective participants ($N = 605$ MTurk workers) were first asked two screening questions: "Have you or an immediate family member of yours ever been diagnosed with cancer?" and "Are you familiar with Chinese language characters?" Those answering "*no*" to both of these questions ($N = 200$, 63% male, $M_{\text{age}} = 34.2$ years, $SD = 10.0$) proceeded to the study, in which, as in Study 2A, they imagined that they were receiving the results of a skin biopsy. To further reduce potential perceptions of a doctor conflict of interest, we conveyed the independence of the doctor from the test result by telling participants that: (a) the messenger doctor was a different doctor from the one who took the initial sample (implying that the doctor on call rotates and thus many not stand to benefit from additional visits); and (b) their sample was processed by an external medical lab. Participants were then shown a photograph of a doctor (Dr. Johnson), and read an accompanying message from this messenger, that the biopsy either tested negative (good news condition) versus positive (bad news condition) for skin cancer. After receiving good or bad news, participants completed the two process measures (described below), the order of which was counterbalanced.

Associative process measure. Our associative measure was based on the *affect misattribution procedure* created by Payne et

al. (2005) and used by others (e.g., Gawronski & Walther, 2008). Participants were told:

> This part of the study is about how people make simple but quick judgments. You'll be shown pairs of pictures flashed one after the other. The first picture in each pair will be of a person or pattern. This is just a warning signal that the second picture, a Chinese character, is about to appear. The second picture in each pair will be the Chinese character. The Chinese character will disappear, and you will be asked to indicate, as quickly as you can, whether the character you just saw is more or less pleasant than the average Chinese character.

Participants then completed 24 trials in which they first viewed a prime—either a photograph of Dr. Johnson or a neutral gray square for 100 ms, followed by a blank screen for 130 ms, and then a Chinese character pictograph for 150 ms (see Payne et al., 2005). Next, the Chinese pictograph disappeared, and participants responded to the item: "Quick! Is the Chinese character you just saw more or less pleasant than the average Chinese character?" on a binary response scale (cf., Payne et al., 2005): *less pleasant* or *more pleasant*. On a random selection of 12 of these trials, participants were primed with a photo of Dr. Johnson, and on the other 12 trials, they were primed with the neutral gray square.

Motives process measure. Participants indicated their perceptions of the doctor's motives by completing the statement "I think Dr. Johnson was . . ." using a sliding scale from 1 (*hoping for bad news*) to 100 (*hoping for good news*), with the midpoint labeled "*indifferent between bad versus good news*."

Liking. Next, participants rated the statement "I like Dr. Johnson" on a scale from 1 (*strongly disagree*) to 10 (*strongly agree).*

Finally, participants completed an attention check in which they were tasked with identifying the test result from their scenario (98% passed), and then indicated whether they had ever been tested for cancer (18% had).

Results

Liking. Participants in the bad news condition liked the doctor significantly less than those in the good news condition (M_{bad} = 5.82, SD_{bad} = 1.70; M_{good} = 7.71, SD_{good} = 1.71), $t(198) = 7.83$, $p < .001$, $d = 1.11$, $BF_{10} = 21444989635$.

Associative measure. Participants in the bad news condition rated the Chinese characters paired with the doctor's photograph as significantly less pleasant (M_{bad} = 5.50, SD_{bad} = 2.67) than those in the good news condition (M_{good} = 6.98, SD_{good} = 1.95), $t(198) = 4.49$, $p < .001$, $d = 0.63$, $BF_{10} = 1388.99$. In contrast, participants in the bad news condition did not rate the Chinese characters paired with the neutral squares as less pleasant (M_{bad} = 6.48, SD_{bad} = 2.77) than those in the good news condition (M_{good} = 6.83, SD_{good} = 2.35), $t(198) = 0.97$, $p = .33$, $d = 0.14$, $BF_{01} = 4.18$.

Motives measure. Participants in the bad news condition deemed the doctor to have significantly more malevolent motives than those in the good news condition (M_{bad} = 65.67, SD_{bad} = 20.32; M_{good} = 85.07, SD_{good} = 16.38), $t(196) = 7.41$, $p < .001$, $d = 1.05$, $BF_{10} = 1872791795$.

We tested whether the motives measure correlated with the effect, even when controlling for the associative measure. Using the bias-corrected bootstrap method recommended by Preacher and Hayes (2004), we found that the 95% confidence interval of the indirect mediation model of messenger motives did not contain zero [−.861, −.228], indicating that including perceptions of messenger motives as a mediational variable fits the data, even when controlling for the associative measure.

In sum, Study 5B replicates Study 5A and also speaks to the plurality of mechanisms likely to underlie the effect. Specifically, Study 5B suggests that some of the effect may be accounted for by an associative process; however, additional variance appears to be accounted for by a novel, attributional account. Study 5A is also consistent with this account: consistent with associative processes, there is both a liking benefit bestowed on bearers of good news in addition to a liking penalty imposed on bearers of bad news (Carlston & Skowronski, 2005). However, in contrast to classic associative processes and consistent with attributional processes (Bohner et al., 1988; Jones & Davis, 1965; Kelley, 1973; Morewedge, 2009; Rozin & Royzman, 2001), the ascription of motives reflects a valence asymmetry: it is only correlated with the derogation of bad news messengers (i.e., the negatively valenced side of the effect)—but uncorrelated with the boost observed for bearers of good news.

Study 5C

Our findings so far suggest that people dislike bearers of bad news. We contend that these judgments are unwarranted because the messenger neither had substantive control over the bad news' occurrence (i.e., the draw was not rigged), nor did he choose to be a messenger—facts we attempted to convey credibly to participants. For example, Study 1 was run in sessions of up to 36 participants in which it was transparent that some participants received good news while others received bad news. Thus participants likely (accurately) believed some of their peers to be receiving good news, and others to be receiving bad news, decreasing perceptions that the draw was rigged. And to convey that the messenger truly did not choose her fate, in Study 2B we explicitly conveyed that the messenger was assigned her role and administered a comprehension check to confirm that participants had noticed this information.

However, even if participants believed that the draw was not rigged and the messenger assigned his role, disliking the bad news messenger could arguably be warranted if he was perceived as lacking empathy—a possibility given the minimalistic messenger scripts in the studies so far. This simplicity afforded clarity in demonstrating the basic effect, but it may have made the messenger seem lacking in empathy. Therefore in Study 5C, the messenger conveys: (a) that she was assigned her role (consistent with Study 2B); and (b) empathy, by apologizing when delivering the bad news (Brooks, Dai, & Schweitzer, 2014).

Similarly, although in the studies so far the messenger truly did not have control over the occurrence of the undesired outcome—a fact we attempted to make transparent to participants—it is possible that participants nonetheless presumed the outcome to be rigged. Although this possibility seems less plausible in the medical scenario studies, Study 5C addresses it by having participants bet on an outcome determined by a publicly verifiable, external event: whether the largest headline on a prespecified page of tomorrow's *Wall Street Journal* will have an even versus odd number of words. Thus, Study 5C was a two-part study: On day 1

participants placed their bets; on day 2 they returned to hear the messenger convey the outcome.

Method

Day 1. Prospective participants (N = 389 MTurk workers) were asked whether anyone in their household subscribed to the print version of the *Wall Street Journal*. Those answering "*No*" (N = 301 MTurk workers; 47% male, M_{age} = 35.8 years, SD = 11.9) continued as participants, for which they would be paid \$0.20 on Day 1, and \$1.00 on Day 2 (plus the possibility of a \$0.50 bonus, as described next). Participants were endowed with an additional \$0.50 and told that they would be using it in a bet. On the next page, participants saw a photo of the first author, plus a message from her. This feature was designed to make credible the messenger's later claim that her boss assigned the task to her. The message read:

> Hi, I'm Leslie, and I'm running this study.
>
> Across two HITs—one today, and one tomorrow—you will be betting this \$0.50.
>
> You will be betting on whether the number of words in the title with the largest font size on page A2 of the print edition of tomorrow's *Wall Street Journal* is odd or even. That is, you will be betting on whether largest title on page A2 has an odd or an even number of words. Specifically, if . . .
>
> - You bet "odd" and you are correct—as in, the largest title on page A2 has an odd number of words, then you will win the \$0.50
> - You bet "odd" and you are incorrect—as in, the largest title on page A2 has an even number of words, then you will lose the \$0.50
> - You bet "even" and you are correct—as in, the largest title on page A2 has an even number of words, then you will win the \$0.50
> - You bet "even" and you are incorrect—as in, the largest title on page A2 has an odd number of words, then you will lose the \$0.50
>
> Tomorrow, you will be asked to complete Part 2 of this study, during which I plan to tell you whether you won or lost the bet, and ask you to complete a short follow-up survey. Hyphenated words will be counted as one word.

We also showed participants an example: a photograph of a prior day's page A2 of the *Wall Street Journal* with the largest title circled. Prior to placing their bet, participants were required to correctly answer two quiz questions about the payment structure (see Appendix E).

Day 2. One day later, participants were invited to return; 90% (N = 270) did so (good news condition: 83%; bad news condition: 91%; χ^2 = 3.83, p = .05). Participants first saw a message from the first author, along with her photo. The message read:

> Welcome back. As a reminder, yesterday you participated in Part 1 of this study. You were given \$0.50, and made a bet about whether the number of words in largest title on page A2 of today's *Wall Street Journal* would be odd or even. Your bet was that the title would contain an odd [even] number of words. If the title is actually an odd [even] number of words, you will win this additional \$0.50 for a total study payment of \$1.70. If, instead the title is actually an even [odd] number of words, you will lose this \$0.50 for a total study payment of \$1.20. On the next page, you will learn the results.

Next, participants watched a video in which a research assistant, with that day's *Wall Street Journal* in hand, said:

> Hello, I'm Holly, Leslie's research assistant. She was supposed to deliver this news, but ended up not being able to, so she assigned me to do it. Here is today's *Wall Street Journal*. I'm turning to page A2 and finding the largest headline on the page . . .

The headline in question had an even number of words; therefore for participants who had bet on even, the messenger proceeded to say:

> You chose even. I'm happy to tell you that I have good news for you. You won the lottery, and so you will receive the additional \$0.50.

Conversely, for participants who had bet on odd, the messenger said:

> You chose odd. I'm sorry to tell you that I have bad news for you. You lost the lottery, and I feel badly telling you this, but you lose the \$0.50.

Finally, so that participants could see the headline for themselves, the research assistant held up page A2 of the *Wall Street Journal* and said:

> The largest headline is *Revised GDP Signals 1.4% Growth Rate*. That's six words, which is even.

The next screen displayed to participants what their total study payment would be (i.e., either \$1.20 or \$1.70).

Participants then rated the statements: "I like the research assistant" on a scale from 1 (*strongly disagree*) to 9 (*strongly agree*), and "I think the research assistant was . . ." using a sliding scale from 1 (*hoping for bad news*) to 100 (*hoping for good news*), with the midpoint labeled "*indifferent between bad vs good news*." Administration order was counterbalanced between-subjects (order did not matter; we therefore collapse across it in the results).

Finally, participants completed an attention check in which they indicated (a) whether the researcher had chosen versus been assigned her role (90% passed); and (b) whether they had seen page A2 of that day's *Wall Street Journal* prior to watching the video (99.6%—all but one participant—had not); and (c) indicated whether they experienced any technical difficulties (99% did not).

Results

Liking. Participants who received bad news liked the research assistant less than those who received good news (M_{bad} = 6.41, SD_{bad} = 1.75; M_{good} = 7.28, SD_{good} = 1.46), $t(263)$ = 4.32, $p < .001$, d = 0.53, BF_{10} = 760.70.

Motives. Participants who received bad news also deemed the research assistant's motives to be more malevolent (M_{bad} = 41.55, SD_{bad} = 19.76) than those who received good news (M_{good} = 30.27, SD_{good} = 19.26), $t(263)$ = 4.69, $p < .001$, d = 0.58, BF_{10} = 3385.41.

To test whether the motives measure was correlated with the effect, we used the bias-corrected bootstrap method recommended by Preacher and Hayes (2004). The 95% confidence interval of the indirect mediation model did not contain zero [−.725, −.266], indicating that including perceptions of messenger motives as a mediational variable fits the data.

In sum, Study 5C provides converging evidence that people dislike messengers who deliver bad news and perceive such messengers to have malevolent motives. Study 5C also goes further, suggesting that such dislike surfaces even when a messenger who has clearly been assigned her role empathically conveys news of an unfortunate outcome that she could not plausibly have caused.

Similarly, we ran an additional study (reported in full in Appendix F) within the medical scenario paradigm in which the messenger conveyed the news—regardless of whether it was good or bad—empathically. In the bad news condition, the physician messenger said: "I have bad news: your biopsy tested positive. This means that the mole is cancerous. I am so sorry. I feel for you. It must be difficult to be the recipient of this news." Again, participants in the bad news condition liked the doctor less than those in the good news condition (M_{bad} = 5.73, SD_{bad} = 2.63; M_{good} = 7.75, SD_{good} = 2.30), $t(245) = 6.44$, $p < .001$, $d = 0.82$, BF_{10} = 25015487. We also used this empathic language in Study 4, as reported earlier in this article.

Studies 6A and 6B: Ascription of Motives: Moderation

Studies 5A–C showed that messenger dislike is linked to the belief that the messenger has malevolent motives. This correlational approach provides preliminary, though equivocal, evidence of this element of our process account (Bullock, Green, & Ha, 2010; Fritz, Taylor, & MacKinnon, 2012; Spencer et al., 2005; Zhao, Lynch, & Chen, 2010). Studies 6A and 6B go further, manipulating messenger motives independently from news valence to reveal a causal role in our process account. Specifically, these studies test whether the tendency to dislike bearers of bad news is mitigated when recipients are made aware of the benevolence of the messenger's motives. Based on our account, we predicted that when a messenger with benevolent motives conveys bad news, the liking penalty would be reduced relative to the messenger with malevolent motives. Both studies use lottery paradigms as in Studies 1, 5A, and 5C, and apply a 2 (News Valence: *Good* vs. *Bad*) × 2 (Messenger Motives: *Benevolent* vs. *Malevolent*) between-subjects designs. The two studies differ in the operationalization of the motives manipulation. Study 6A additionally demonstrates that the motives manipulation is specific; it affects judgments of liking, but not judgments of another attribute: competence.

Study 6A

Method

Participants (N = 402 MTurk workers, 59% male, M_{age} = 34.5 years, SD = 10.4) were guaranteed a $0.60 payment and endowed with an additional $0.10 for a draw. Participants were told that they would watch a video in which a research assistant would draw a slip of paper that would determine whether they would keep the $0.10:

> The video will depict a researcher drawing one of two slips of paper from a bag at random.
>
> One of the slips of paper says "KEEP bonus." If the researcher draws this slip, then you will keep the $0.10 bonus. The other slip of paper says "LOSE bonus." If the researcher draws this slip, then you will lose the $0.10 bonus.

Next, participants received information about the research assistant's motives. They were randomized to either learn that the researcher was trying to draw the "lose bonus" slip (malevolent motives condition) or trying to draw the "keep bonus" slip (benevolent motives condition).

Participants next viewed a video in which the research assistant: (a) showed that the opaque drawing jar was empty; (b) wrote "LOSE bonus" on one slip of paper and "KEEP bonus" on another; (c) put both slips into an opaque drawing jar; (d) shook the jar; (e) drew a slip from the jar while looking away; and (f) opened the slip and read what it said. Specifically, based on the condition, the research assistant said: "I have been instructed to try and draw the keep [lose] bonus slip, here goes! I have good [bad] news for you. I succeeded [failed] in doing what I tried to do. I managed to [did not manage to] draw the keep [lose] bonus slip. This means that you keep [lose] your 10 cent bonus."

After watching the video, participants completed a manipulation check to ensure they had correctly interpreted the messenger's motive. Participants were asked: "Which of the following is true?" and were presented with each of the four possibilities of the statement "The drawer ACCOMPLISHED [FAILED at accomplishing] what she set out to do; to draw the "Keep $0.10" ["Lose $0.10"] slip." Eighty-eight percent of participants passed this check.

Next, participants rated the statements: "I like the drawer" and "I think the drawer is competent" on a scale from 1 (*strongly disagree*) to 9 (*strongly agree.*) The order of these measures was counterbalanced (order did not matter; we therefore collapse across it in the results).

Results

Liking. Overall, bearers of bad news were liked less than bearers of good news, replicating our basic effect (M_{bad} = 5.52, SD_{bad} = 2.21; M_{good} = 7.33, SD_{good} = 1.61) $F(1, 398) = 92.92$, $p < .001$, $\eta^2 = .19$. Messengers with malevolent motives ($M_{malevolent}$ = 6.23, $SD_{\text{malevolent}}$ = 2.26) were also liked less than messengers with benevolent motives ($M_{benevolent}$ = 6.63, $SD_{\text{benevolent}}$ = 1.97), $F(1, 398) = 7.60$, $p = .006$, $\eta^2 = .019$. Importantly, these main effects were qualified by a significant News Valence × Messenger Motives interaction $F(1, 398) = 5.99$, $p = .015$, $\eta^2 = .015$ (see Figure 4). Follow-up tests indicated that the motives manipulation served as a partial buffer: the benevolent bearer of bad news was liked more ($M_{benevolent}$ = 5.99, $SD_{\text{benevolent}}$ = 2.04) than the malevolent bearer of bad news ($M_{malevolent}$ = 5.00, $SD_{\text{malevolent}}$ = 2.29), $t(198) = 3.24$, $p = .001$, $d = 0.46$, BF_{10} = 19.24—an effect that did not emerge in the good news conditions ($M_{benevolent}$ = 7.36, $SD_{\text{benevolent}}$ = 1.61; $M_{malevolent}$ = 7.30, $SD_{\text{malevolent}}$ = 1.61), $t(200) = 0.47$, $p = .80$, $d = 0.04$, $BF_{01} = 5.87$.

Competence. In contrast to the results for liking, for competence, there was no News Valence × Messenger Motives interaction, $F(1, 398) = 0.22$, $p = .64$, $\eta^2 = .001$, nor was there a main effect of motives ($M_{malevolent}$ = 7.04, $SD_{\text{malevolent}}$ = 1.90; $M_{benevolent}$ = 6.99, $SD_{\text{benevolent}}$ = 1.91) $F(1, 398) = 0.002$, $p = .96$, $\eta^2 < .01$. There was, however, a main effect of news valence on competence ratings (M_{bad} = 6.57, SD_{bad} = 2.07; M_{good} = 7.46,

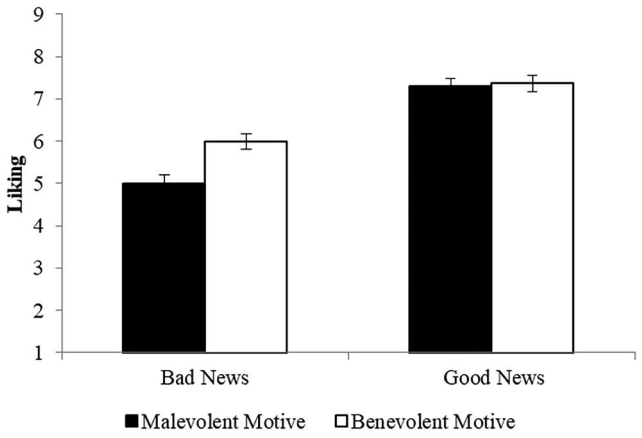

Figure 4. Benevolent motives buffer the effect of breaking bad news on liking (Study 6A). Error bars represent ±1 SE of the mean.

SD_{good} = 1.62), $F(1, 398) = 22.66$, $p < .001$, $\eta^2 = .05$. This supports our contention that innocent bearers of bad news could be the targets of other unwarrantedly negative judgments. However, competence was not moderated by our motive manipulation, suggesting that that this effect is driven by different mechanism(s).

Study 6B

Study 6B also provides evidence of moderation, but using a motives manipulation different than that of Study 6A. In Study 6B, the messenger could win a bonus contingent on whether the participant received good versus bad news. We manipulated whether the messenger's bonus was aligned or misaligned with that of the recipient. Specifically, in the benevolent motives condition, the messenger earned a bonus when the participant received good news, and lost the bonus opportunity when the participant received bad news; in the malevolent motives condition the messenger earned a bonus when the participant received bad news, and lost the bonus opportunity when the participant received good news. The logic of this manipulation is that when incentives are misaligned, it is more plausible that the messenger has malevolent motives. Importantly however, because the messenger cannot actually control the outcome, motives are objectively irrelevant. Nonetheless, as our account predicts, this manipulation should moderate the effect, with messengers of bad news who have benevolent motives being liked more than those with malevolent motives.

Method

Participants (N = 600 MTurk workers, 60% male, M_{age} = 34.7 years, SD = 11.1) were guaranteed a $0.40 payment and endowed with an additional $0.10 for a draw. Next, they were told that they would be asked to select either the number one or the number two, and that afterward, they would watch a video of a research assistant reading from a slip of paper inside an envelope he had been given with the number one or two inside. Further, participants were told that if their selected number was inside, they would earn an additional $0.10 (good news condition), and that if the other number was inside, they would lose the $0.10 (bad news condition).

Next came the motives manipulation: Half of participants were told the pay-offs for the research assistant were identical to theirs; the other half were told that the payoffs for the research assistant were opposite theirs, such that the research assistant would gain $0.10 when the participant lost $0.10, and vice versa. Participants were then shown a table indicating exactly what the payoff would be for each of the four possible combinations of participant-selected versus read numbers (see Appendix G and H). Prior to selecting a number, participants were required to correctly answer two quiz questions about the payment structure (see Appendix I).

After selecting the number one or two, participants were shown a prerecorded video, customized based on their motive condition and initial number selection (such that we created eight videos). In the video, a research assistant was shown with an envelope and said: "This is the envelope I've been given to open for this study." Then, the research assistant opened the envelope and looked at the slip of paper, but did not show it to the camera, and said:

> I have good [bad] news for you. The number in the envelope is a 1 [2]. This means you will win an additional [lose the] $0.10, and I will also win [lose] $0.10 [I will lose [win] $0.10].

Then, the research assistant showed the slip of paper with the relevant number written on it. Next, participants responded to the item: "The researcher who read the number in the envelope is likeable," on a scale from 1 (*not at all*) to 10 (*extremely*). Finally, participants completed two comprehension checks in which they indicated: (a) whether they had received good or bad news (i.e., whether they received the bonus; 97% passed); and (b) whether the research assistant received the bonus (95% passed).

Results

Overall, bearers of bad news were deemed less likable relative to bearers of good news (M_{bad} = 5.37, SD_{bad} = 2.17; M_{good} = 7.24, SD_{good} = 1.80), $F(1, 596) = 132.00$, $p < .001$, $\eta^2 = .18$. Messengers with malevolent motives ($M_{malevolent}$ = 6.37, $SD_{malevolent}$ = 2.29) were not judged as any less likable than messengers with benevolent motives ($M_{benevolent}$ = 6.25, $SD_{benevolent}$ = 2.10), $F(1, 596) = 0.16$, $p = .688$, $\eta^2 < .01$. These effects were qualified by a significant News Valence × Messenger Motives interaction, $F(1, 596) = 7.39$, $p = .007$, $\eta^2 = .01$. Follow-up tests indicated that the motives manipulation served as a partial buffer: the benevolent bearer of bad news (benevolent because his incentives were aligned with the participant's) was deemed more likable ($M_{benevolent}$ = 5.60, $SD_{benevolent}$ = 2.10) than the malevolent bearer of bad news ($M_{malevolent}$ = 5.10, $SD_{malevolent}$ = 2.23), $t(297) = 2.02$, $p = .044$, $d = 0.23$, $BF_{01} = 1.13$. This was a slightly larger effect than that observed for those who received good news (within good news conditions: $M_{malevolent}$ = 7.41, $SD_{malevolent}$ = 1.75; $M_{benevolent}$ = 7.03, $SD_{benevolent}$ = 1.83), $t(299) = 1.82$, $p = .07$, $d = 0.21$, $BF_{01} = 1.62$.

Although the size of the effect observed in Study 6B is small, taken together, Studies 6A and 6B provide converging evidence, via moderation, of our motives-based process account for the tendency to dislike bearers of bad news. In support of this account, these studies show that dislike of bad news messengers is miti-

gated when recipients are aware of the benevolence of the messenger's motives.

General Discussion

Eleven experiments provide evidence that people have a tendency to "shoot the messenger," deeming innocent bearers of bad news unlikeable. Study 1 was a preregistered lab experiment in which participants rated messengers who delivered bad news from a random drawing as relatively unlikeable. A second set of studies pointed to the specificity of the effect: Study 2A showed that it is unique to the messenger, and not mere bystanders. Study 2B showed that it is distinct from merely receiving information that one disagrees with.

We have suggested that this effect—the tendency to deem bearers of bad news as unlikeable—stems in part from people's desire to understand and make sense of chance processes. Consistent with this account, first, we showed that recipients of bad news exhibit a heightened desire to sense-make (Study 3A), and that manipulations designed to augment the desire to sense-make heighten the tendency to derogate bearers of bad news (Studies 3B and 4). Second, consistent with the idea that people fulfill this desire to sense-make by erroneously ascribing agency to innocent bearers of bad news, we showed that recipients of bad news tend to believe their messengers have malevolent motives—a tendency we link to messenger dislike (Studies 5A, 5B, 5C, 6A, and 6B).

We have shown that people judge innocent messengers of bad news as unlikeable—and that because the messengers are innocent, in the sense that they did not choose their fate and could not control the outcome, these harsh judgments are unwarranted. This effect may render justifiable a related phenomenon—the mum effect, whereby people avoid conveying bad news when given the choice (Rosen & Tesser, 1970). Importantly, our studies are reflective of many real-life situations, including medical contexts, in which people, through no fault of their own, are tasked with the unfortunate role of communicating unwanted news. By demonstrating the effect in contextually rich scenario studies, in addition to abstract lottery paradigms, we suggest these erroneous judgments are common in everyday life. However, there are also situations in which derogation of bad news messengers could be justified. For example, a repair technician may relish in informing a customer of worse-than-anticipated damage because of the increased business it would afford. In such cases, we would expect such actors to be even more strongly disliked than the innocent messengers of our studies.

We focused on likability as dislike has been found to dominate judgments of other attributes (e.g., competence) that drive people's behavior toward a target (Casciaro & Lobo, 2008). However, bad news messengers could be the targets of other unwarrantedly negative judgments; as shown in Study 6A, they are deemed less competent than bearers of good news. Future research might investigate this finding, and more broadly, delve into the unique psychological mechanisms underlying the additional consequences of being a messenger. Future research might also explore interventions, to address for example, how physicians might deliver unwelcome news without suffering a likability penalty. Study 6A provides a starting point, suggesting that it may behoove physicians to explicitly state what they probably presume is a given: that they wish the best for their patients.

We provide evidence that our effect is undergirded in part by a motivation to make sense of unwanted outcomes, even those arising from chance. However, we readily acknowledge that the effect is likely multiply determined. Other than the account we have tested, what might be some other reasons for "shooting the messenger"? And what is the evidence that our account is distinct from these alternatives? One possibility is that associative processes play a role (Carlston & Skowronski, 2005; Gawronski & Bodenhausen, 2006). Indeed, Study 5B suggests that they do play a role; however, our sense-making account explained additional variance beyond that explained by a purely associative process account. Another related, possibility is that the effect is driven by negative affect spillover, whereby the negative affect people feel after receiving bad news is diffused, causing them to perceive the world in a more negative light. However, Study 2A indicates that the shooting the messenger effect is specific to the (innocent) messenger; likability of an innocent bystander was unaffected by the news delivery. In addition, a pretest of the sense-making manipulation employed in causal chain Study 3B indicated that, as intended, it heightened the desire to sense-make; it did *not* increase negative affect. One final (though not necessarily exhaustive) possibility is that, especially given the tendency to shy away from delivering bad news (Rosen & Tesser, 1970), people might perceive those who *do* break bad news as rude, or as "norm-violators," breeding dislike. However, participants derogated innocent bearers of bad news even when such perceptions were less plausible: when they were aware that the messenger was obligated to deliver the news (Studies 2B and 5C), and when the messenger delivered the news with an apology or expression of empathy (Studies 4, 5C, and Appendix F). In summary, our proposed process holds even when considering these other possibilities. Thus, we view them as complementary, as opposed to competing, accounts.

Relatedly, although Studies 5A–C demonstrate that a model assessing messenger motives as a mediational variable fits the data, it is possible that other, unmeasured models may also fit our data (Murphy & Zajonc, 1993; Reeder, Vonk, Ronk, Ham, & Lawrence, 2004; Zajonc, 1980). These correlational studies are consistent with our process account but are particularly subject to alternative causal explanations. However, Studies 4, 6A, and 6B—which offer support for our process account via experimental methods (by demonstrating that our effect is moderated by manipulating the process variables)—are less subject to alternative causal explanations. Although future research is needed to assess possible additional mechanisms, considering the evidence as a whole, motivational inferences are likely a driver of the relationship between bad news delivery and messenger liking.

From an academic perspective, this research advances theories of judgment and decision making, the psychology of meaning-making, and the literature on feedback and communication. In the spirit of the field of judgment and decision-making, we document a novel judgmental mistake, in this case in person-perception during interpersonal communication processes: People erroneously ascribe malevolent motives to the innocent messengers who inform them of unfortunate outcomes. We also provide empirical evidence consistent with sense-making models of human behavior—evidence that a comprehensive review of the broader meaning-making literature (Park, 2010) concluded to be scant, noting that "unfortunately, empirical work has not matched the

richness or complexity of theories regarding meaning and meaning making, perhaps partly because the abstract and complex nature of the theoretical models renders them more amenable to hypothesis generation than to hypothesis testing" (p. 262).

From a practical standpoint, our findings imply a kind of "triple whammy" for those delivering and receiving bad news. First, those given the difficult but important task of breaking bad news are deemed unlikeable, a stressor unto itself. Second, recipients must grapple with a new and undesired state of the world. Third, because people are loath to accept advice from those they dislike (Feng & MacGeorge, 2010; Silvia, 2005), recipients may be disinclined to recognize messengers as a resource. Especially when the messenger is integral to the solution, as is often the case in medical contexts, "shooting the messenger" may impede people from taking steps to make their own futures brighter.

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Appendix A

Study 2B Pro and Anti Marijuana Statements About Marijuana

Pro Marijuana:

Marijuana has accepted medical use in treatment in the U.S., and it would easily meet the FDA criteria over whether a new product's benefits to users will outweigh its risks. Marijuana is a safe and effective treatment for dozens of conditions, such as cancer, AIDS, multiple sclerosis, pain, migraines, glaucoma, and epilepsy. Thousands of yearly deaths from legal prescription drugs could be prevented if medical marijuana were legal.

Anti Marijuana:

Marijuana has not been FDA-approved because it is too dangerous to use, and various FDA-approved drugs make the use of marijuana unnecessary. Marijuana is addictive, leads to harder drug use, injures the lungs, harms the immune system, damages the brain, interferes with fertility, impairs driving ability, and sends the wrong message to kids. Medical marijuana is a front for drug legalization, and that people who claim medical use are actually using it for recreational pleasure.

Source: Procon.org "a nonpartisan nonprofit organization with a mission of 'Promoting critical thinking, education, and informed citizenship by presenting controversial issues in a straightforward, nonpartisan, primarily pro-con format'" (ProCon.org, 2009).

http://medicalmarijuana.procon.org/view.resource.php?resourceID=000140

Appendix B

Conceptual Replication of Study 5A

We ran an additional study to assess whether receiving bad news prompted more sense-making using the plane boarding paradigm.

Method

Participants ($N = 198$ MTurk workers; 47% male, $M_{age} = 34.63$ years, $SD = 11.66$) were asked to imagine a plane-boarding scenario as in Study 3A, whereby they were "at the airport, sitting at Gate B5, which is the gate for your flight." Participants in the bad news condition were told:

> The gate agent makes the following announcement: This is an announcement that this flight is delayed by 2 hours: Your flight will depart two hours later than scheduled.

Participants in the control condition were told:

> This is an announcement that this flight will be boarding soon: Your flight will start boarding in 5 minutes.

Next, we measured sense-making by asking participants to rate the statement: "I'm trying to make sense of this news" on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*; cf., Bonanno, Wortman, & Nesse, 2004; Eton et al., 2005; Lepore & Kernan, 2009; Tomich & Helgeson, 2002; Updegraff, Silver, & Holman, 2008). Finally, participants completed a multiple choice comprehension check in which they identified what the gate agent had announced (86.2% passed). Participants also indicated whether they had flown on a commercial airplane (93.4% had).

Results

Replicating our results from Study 3A, participants in the bad news condition were more likely to indicate that they were trying to make sense of the news relative to those in the control condition ($M_{bad} = 4.58$, $SD_{\text{bad}} = 1.80$; $M_{control} = 4.03$, $SD_{\text{control}} = 1.77$), $t(196) = 2.17$, $p = .031$, $d = 0.31$.

(*Appendices continue*)

Appendix C

Study 5A Lottery Payout Table

You pick:	Number drawn is:	Outcome	Total payment for this HIT
1	1	Win (i.e., you receive an additional 10 cents)	$1.20
1	2	Neutral (i.e., you neither receive an additional 10 cents nor lose 10 cents)	$1.10
1	3	Lose (i.e., you lose 10 cents)	$1.00
2	2	Win (i.e., you receive an additional 10 cents)	$1.20
2	3	Neutral (i.e., you neither receive an additional 10 cents nor lose 10 cents)	$1.10
2	1	Lose (i.e., you lose 10 cents)	$1.00
3	3	Win (i.e., you receive an additional 10 cents)	$1.20
3	1	Neutral (i.e., you neither receive an additional 10 cents nor lose 10 cents)	$1.10
3	2	Lose (i.e., you lose 10 cents)	$1.00

Note. Green (dark grey) rows indicate good news condition, blue (light grey) rows indicate neutral news condition, and red (white) rows indicate the bad news condition. See the online article for the color version of this table.

Appendix D

Study 5A Quiz Questions (Correct Answers Bolded)

Suppose you chose the number two and the number drawn was also a two, what would your total payment for this HIT be? ($0.90, $1.00, $1.10, **$1.20**, $1.30)

Suppose you chose the number one and the number drawn was a two, what would your total payment for this HIT be? ($0.90, $1.00, **$1.10**, $1.20, $1.30)

Suppose you chose the number three and the number drawn was a two, what would your total payment for this HIT be? ($0.90, **$1.00**, $1.10, $1.20, $1.30)

Appendix E

Study 5C Quiz Questions (Correct Answers Bolded)

If today you bet "even," and tomorrow the largest title on page A2 of the *Wall Street Journal* is *Police Investigating Homicides of Doctors*, what will your total study payment be? (**$1.20**, $1.50, $1.70)

If you bet "odd," and tomorrow the largest title on page A2 of the *Wall Street Journal* is *State-of-the-Art Building Unveiled* what will your total study payment be? ($1.20, $1.50, **$1.70**)

(*Appendices continue*)

Appendix F

We ran an additional study within the medical scenario paradigm in which the messenger conveyed the news—regardless of whether it was good or bad—empathically. The study was a two-condition between-subjects design manipulating news valence (*Bad* vs. *Good*).

Method

Prospective participants (N = 611 MTurk workers) were first asked "Have you or an immediate family member of yours ever been diagnosed with cancer?" those answering "*yes*" were screened out per IRB requirement. Those answering "*no*" (N = 256) imagined themselves as patients attending a medical appointment to learn whether a recent biopsy had tested positive for skin cancer, as in Studies 2A and 3B. Nine participants failed to complete the survey resulting in a final sample of N = 247 (55% male, M_{age} = 33.5 years, SD = 9.6). Between-subjects, we manipulated whether participants received bad versus good news; in both cases, we incorporated empathy into the messenger's script. Specifically, in the bad news condition, participants were told:

> Your doctor, Dr. Johnson, tells you: "I have bad news: your biopsy tested positive. This means that the mole is cancerous. I am so sorry. I feel for you. It must be difficult to be the recipient of this news."

In the good news condition, participants were told:

> Your doctor, Dr. Johnson, tells you: "I have good news: your biopsy tested negative. This means that the mole is NOT cancerous. I am so glad. I feel happy for you. It must be great to be the recipient of this news."

Next, participants rated the how much they liked the doctor and their perception of his motives using the same items as Study 3B.

Finally, participants completed an attention check in which they were tasked with identifying the test result from their scenario (97% passed), then indicated whether they had ever been tested for cancer (23% had), and completed some basic demographic information.

Results

Liking

Participants in the bad news condition liked the doctor less than those in the good news condition (M_{bad} = 5.73, SD_{bad} = 2.63; M_{good} = 7.75, SD_{good} = 2.30), $t(245) = 6.44$, $p < .001$, $d = 0.82$, BF_{10} = 25015487.

Motives

Participants in the bad news condition also deemed the doctor's motives to be more malevolent (M_{bad} = 78.98, SD_{bad} = 21.91) than those in the good news condition (M_{good} = 84.50, SD_{good} = 18.45), $t(245) = 2.14$, $p = .033$, $d = 0.27$. The 95% confidence interval of the indirect mediation model did not contain zero [−.454, −.020], indicating that including perceptions of messenger motives as a mediational variable fits the data.

Appendix G

Study 6B Lottery Payout Table: Motives Aligned Conditions

You pick:	Number in envelope is:	Outcome for you	Outcome for researcher	Your total payment for this study
1	1	Win (you receive an additional $.10)	Win (researcher receives an additional $.10)	$.60
1	2	Lose (you lose $.10)	Lose (researcher loses $.10)	$.40
2	1	Lose (you lose $.10)	Lose (researcher loses $.10)	$.40
2	2	Win (you receive an additional $.10)	Win (researcher receives an additional $.10)	$.60

Note. Green (grey) rows indicate the good news condition, while orange (white) rows indicate the bad news condition. See the online article for the color version of this table.

(*Appendices continue*)

Appendix H

Study 4B Lottery Payout Table: Motives Misaligned Conditions

You pick:	Number in envelope is:	Outcome for you	Outcome for researcher	Your total payment for this study
1	1	Win (you receive an additional $.10)	Lose (researcher loses $.10)	$.60
1	2	Lose (you lose $.10)	Win (researcher receives an additional $.10)	$.40
2	1	Lose (you lose $.10)	Win (researcher receives an additional $.10)	$.40
2	2	Win (you receive an additional $.10)	Lose (researcher loses $.10)	$.60

Note. See the online article for the color version of this table.

Appendix I

Study 6B Quiz Questions (Aligned Condition Correct Answers Bolded, Misaligned Condition Correct Answers Italicized)

Suppose you pick two and the number in the envelope the researcher reads is also two, what would the payouts be? (**You win $0.10, researcher wins $0.10**; *You win $0.10, researcher loses $0.10;* You lose $0.10, researcher wins $0.10)

Suppose you pick two and the number in the envelope the researcher reads is one, what would the payouts be? (You win $0.10, researcher wins $0.10; **You lose $0.10, researcher loses $0.10**; *You lose $0.10, researcher wins $0.10*)

Received February 16, 2017
Revision received January 19, 2019
Accepted January 22, 2019 ■