Hesitation to Share Bad News: Byproduct of Verbal Message Planning or Functional Communication Behavior?

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**Abstract**

Research on bad news delivery reveals a reliable temporal delay in the onset of the bad news message from the sender to the receiver. An experiment utilized a false feedback test design to determine whether the delay is better accounted for by negative verbal message planning, functional communication potential, or both. Participant-senders \(N = 138\) delivered either scripted or unscripted good, neutral, or bad news to a stranger. News valence, delay before response, and reluctance were measured. Both delay and reluctance data supported the functional explanation. The delay data also supported the cognitive negativity explanation. Implications and limitations are discussed.

*Keywords*: MUM effect, Bad news, Reluctance, Cognitive biases, Interpersonal communication, Negative feedback
Hesitation to Share Bad News: Byproduct of Verbal Message Planning or Functional Communication Behavior?

People are reluctant to share bad news. This tendency is known as the MUM effect (keeping “Mum” about Undesirable Messages, Rosen & Tesser, 1970; 1972; Tesser & Rosen, 1975), and this effect has been observed in various contexts and settings (Bisel, Kelley, Ploeger, & Messersmith, 2011; Fisher, 1979; Sussman & Sproull, 1999; Weenig, Wilke, & ter Mors, 2011). For example, the recent popular movies *Up in the Air* and *50/50* dramatize the difficulties associated with bad news delivery in cases of employment termination and physician-patient communication, respectively. A common behavioral manifestation of the MUM effect is a temporal delay before the onset of the sender’s bad news message (Bond & Anderson, 1987; Dibble & Levine, 2010; Tesser, Rosen, & Tesser, 1971; Uysal & Oner-Ozkan, 2007; Yariv, 2006).

Although this temporal delay has been well demonstrated, the mechanisms producing the effect are less well understood. On one hand, the delay might be nothing more than an artifact of time associated with planning the bad news message. Perhaps senders need additional time to choose their words. A sizeable literature on cognitive negativity biases suggests that negative information weighs heavier on the brain than positive information (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Ito, Larsen, Smith, and Cacioppo, 1998; Taylor, 1991). Choosing words for a bad news message takes longer than choosing words for a good news message because the news is bad and that creates inherently greater cognitive load.

On the other hand, one can view the delay with an eye toward functionality and (multiple) goal attainment (Dillard, Segrin, & Harden, 1989). That is, senders may delay the
onset of their bad tidings in the service of politeness (Brown & Levinson, 1987; Uysal & Oner-Ozkan, 2007), to “fire a warning shot” (Ptacek, Ptacek, & Ellison, 2001), out of consideration for self-presentation (Goffman, 1967), or to soften the impact of the bad news (Brown & Levinson, 1987). Thus, not only might bad news present the news bearer with a more goal-complex, cognitively challenging communicative task, but increased delivery time might also reflect a strategic move in service of these goals. That is, by appearing reluctant to convey bad news, a sender can portray the self as empathic and show sympathy and sensitivity to the message recipient. Consistent with the functional perspective, Bond and Anderson (1987) found that negative feedback was delayed longer than positive feedback only when the sender was visible to the recipient. This finding pointed to the delay as being a strategic interpersonal communication display rather than, or in addition to, an intrapersonal artifact of cognition valence.

Determining whether the delay is associated with verbal message planning can be accomplished by comparing senders who deliver scripted dialogue with senders who deliver unscripted dialogue. To the extent that the delay reflects choosing one’s words and nothing else, then scripting the bad news message should attenuate the delay. To observe a temporal delay despite the delivery of a scripted message would suggest that the delay is not merely a byproduct of intrapersonal cognition valence, and that the delay might reflect a more functional nature.

The current article presents the results of an experiment designed to test whether the delay indeed represents intrapersonal verbal message planning, or if this finding is better explained by something else (e.g., an interpersonal functional stimulus). Addressing this question benefits bad news delivery research in both theoretical and practical ways. Theoretically, to the extent that the findings clarify the underlying processes producing the MUM effect, the
The explanatory function of theory is enhanced. On a practical level, understanding is created that further identifies strategies people enact when faced with delivering bad news, which facilitates the development of communication interventions. Knowledge of this type applies to physicians, supervisors, police, clergy, and others who routinely deliver bad news. For example, physicians are commonly taught to deliver bad news more efficiently (i.e., quicker) by planning ahead what they will say to their patient (Eggly et al., 2006). Should the delay come to represent more than just choosing one’s words, such advice would deny physicians what could turn out to be an important communication tool.

This paper proceeds as follows. First, bad news, research on negativity biases, and politeness theory are reviewed. Next, arguments are presented for the research propositions. An experiment is then reported wherein news valence and message scriptedness were induced within the context of a live interaction. Finally, limitations as well as theoretical, practical, and research implications are discussed.

**Bad News & Mere Cognitive Negativity**

The current study adopts Dibble and Levine’s (2010) conceptualization of bad news as *a message communicating information that is previously unknown to the receiver, is anticipated to be personally relevant to the receiver, and is perceived by the delivery agent to be negatively valenced by the receiver*. Bad news communicates negative information by definition. Research points to the existence of a pervasive and psychological negativity bias characterized by negative information being weighted heavier than positive information (Rozin & Royzman, 2001; Taylor, 1991). For example, evidence reviewed by Baumeister et al. (2001) showed that negative emotions, bad parents, and negative feedback have more impact than positive emotions, good
parents, or positive feedback. Moreover, many researchers now consider positive and negative affect to be qualitatively distinct phenomena as opposed to mere endpoints on the same continuum (e.g., Berscheid, 1983; Diener & Emmons, 1985; Ito et al., 1998).

Applying the idea of mere cognitive negativity to delivering bad news is straightforward. Negative events are those that potentially or actually create adverse outcomes for the individual (Taylor, 1991). Bad news is negative and aversive. Thus, individuals should be biased against sharing bad news in ways that are not salient to the situation of sharing good news. If bad news sharing can be considered a negative event, then a delay in the transmission of bad news might be observed for no other reason than the news is bad.

**Bad News & Politeness Theory**

Because bad news delivery involves self and other’s face, face threats, and facework, politeness theory (Brown & Levinson, 1987) is relevant. Politeness theory holds that individuals are motivated to reduce threats to two types of face: positive face and negative face. Positive face refers to a person’s desire to be approved of in social interaction (Goffman, 1967). Negative face is a person’s desire to remain free from imposition (Brown & Levinson, 1987).

Politeness theory further assumes that as one interacts with others, one rationally estimates the face-threatening potential of any actions he or she is about to take, then selects a communication strategy that maximizes the positive faces of the self and the other, while minimizing transgression of the negative faces of self and other. The practice of doing facework in this manner is termed politeness. According to politeness theory, the amount of politeness a person enacts is positively and linearly related to the magnitude of the anticipated face threat. This point is particularly relevant to the situation of delivering bad news, and it renders
straightforward the application of politeness theory to bad news delivery. Bad news is by
definition face-threatening. Because the negativity of bad news occurs in gradations (Dibble &
Levine, 2010; Fallowfield & Jenkins, 2004), the face-threat impact of the news should covary
with the negativity of the news. Thus, senders faced with sharing bad news can be expected to
vary their politeness maneuvers concomitantly with the anticipated threats to their own and the
receiver’s faces.

Consistent with politeness theory, the reluctance experienced by bearers of bad news
prior to and while discharging their duties as bad news messengers could be a function of
increased demands from managing face. In other words, delaying the onset of the bad news
might constitute a conscious or unconscious face-saving tactic on the part of senders (Bond &
Anderson, 1987). That is, the politeness explanation suggests the delay is not only a function of
increased cognitive effort in managing multiple goals when generating what to say, but also a
strategic delay as a way to mitigate face threat. Enacting reluctance communicates concern for
the other and shows the self to be a considerate individual.

**Research Propositions**

The MUM effect routinely manifests as a delay before a sender communicates the bad
news to the recipient (Bond & Anderson, 1987; Dibble & Levine, 2008, 2010; Uysal & Oner-
Ozkan, 2007). Because a robust MUM effect has been well documented, no additional argument
is made to buttress our expectation that it will replicate beyond the strong empirical findings
obtained in previous research. Two hypotheses, each addressing a different dependent variable,
predict a replication of the MUM effect.

**H1:** Bad news will be delayed longer than good news.
H2: Senders of bad news will report greater felt reluctance than senders of good news.

The primary research objective concerns the nature of the delay before feedback. If the MUM effect reflects additional verbal message planning time and nothing else, not having to choose one’s words should hasten message delivery and negate the MUM effect. Combining good and bad news valence conditions with scripted and unscripted feedback conditions permits a test of this possibility. In this situation the scripted/non-scripted nature of the message would be relevant. Thus, within the bad news condition, senders delivering unscripted bad news should delay their feedback longer than senders who deliver scripted bad news.

H3: Senders delivering unscripted bad news will delay their response longer than senders who deliver scripted bad news.

On the other hand, the delay could be functional, perhaps to mitigate anticipated face threats. Such an expectation is consistent with politeness theory (Brown & Levinson, 1987). If the delay is functional, the MUM effect should linger regardless of whether the message is scripted or not. This is because senders are delaying the onset of their scripted bad news as a means by which to foreshadow the message, communicate politeness, and forestall face threats. The observation that scripted bad news is shared slower than scripted good news would be consistent with the MUM effect as being functional.

H4: Senders delivering scripted bad news will delay the news longer than senders delivering scripted good news.

It should be noted that hypotheses 3 and 4 reflecting the cognitive effort and politeness explanations are not mutually exclusive. That is, the data may well be consistent with both hypotheses and both explanations. The functional view does not preclude increased cognitive
effort or vice versa. Both may co-occur and this is reflected in the research design and hypotheses.

**Method**

An experiment was conducted wherein news valence was induced as a continuous independent variable. News valence (i.e., good news, neutral news, bad news) was fully crossed with scriptedness condition (i.e., scripted feedback, unscripted feedback). Time to response, perceived news valence, and self-reported reluctance served as the primary dependent variables. The basic procedural paradigm involved senders relaying false test feedback to receivers in the context of a live interaction. This research was internal review board approved.

**Participants**

Participants ($N = 138$; 59% Male, $n = 79$; $M_{age} = 20.97$ years, $SD = 2.90$, Range 17-37) were recruited from various Communication classes at a large Pacific university. The race-ethnic makeup of the participants was predominantly Asian (47.0%), followed by European American (21.6%), Pacific Islander (5.2%), African American (5.2%), Latino/Latina (2.2%), Middle Eastern (0.7%), and Native American/Alaskan (0.7%). Approximately 15.7% of the participants indicated they were multiracial or of some other race-ethnicity. Fifty-one dyads featured female participants and female confederates, 25 dyads featured female participants and a male confederate, 33 dyads had male participants and female confederates, and 15 dyads had male participants sharing with a male confederate.

**Procedures**

Participants reported to the lab for an experiment on communication and test administration, and informed consent was properly obtained. Roles (i.e., test-taker, sender) and
scriptedness conditions (i.e., scripted, unscripted) were randomly assigned, and participants were informed they would be administering a personal intelligence assessment to a second “participant” (a confederate) who, participants were told, arrived ahead of time in order to begin working on the intelligence test. Participants were then given information about the test and the scoring procedures and were left alone to review the scoring information while their partner “finished the test.”

After three minutes, the confederate test-taker walked his or her scoresheet to the participant who was seated at a table behind a notebook computer that presumably performed the scoring calculations (in reality, the computer was configured to produce a random integer between 10 and 90 inclusive). Apart from providing polite and curt responses should the participant engage the confederate, confederates did not converse with participants. Confederates would engage the participant only to say the following in a fairly subdued tone, “That was interesting. I’m a little nervous, but super curious to learn how I did.” This dialogue was intended to boost the importance of the test result in the mind of the participant, and thereby heighten the induction.

Participants would key in the test-taker’s answers, then activate the “scoring screen” in the computer before revealing the results. Participants in the unscripted condition were free to reveal the test-taker’s results in any way they wished. However, senders relaying scripted feedback did so by saying the following:

You scored (insert score here) percent. Scores above 64 percent indicate superior performance. Scores ranging from 37 to 63 percent indicate average performance. And
scores below 36 percent indicate inferior performance. Please return to your testing area now, and the experimenter will be with you shortly.

Participants in the scripted condition received identical copies of their script in two modes. First, the script was on the printed sheet containing the scoring instructions that participants received upon sitting at the scoring table. Second, the script displayed prominently on the computer screen when the results screen was activated. Displaying the script electronically on screen was done to sharpen the behavioral delay measure such that any time utilized to locate one’s script would be unconfounded from reluctance and stalling due to the MUM effect. To be sure, participants could still stall in front of the test-taker and claim an inability to locate their lines as a reason for any delay to share the score. However, displaying the script on screen renders this claim a hollow excuse and lends precision to the delay measure. Three video cameras recorded the participants’ behaviors during the entire interaction, and the cameras were operated remotely from a separate nearby control room.

After the participant finished sharing the results, he/she excused the confederate to return to the test-taking room. Participants then completed a follow-up questionnaire, were debriefed, probed to discover whether they had guessed the experimental hypotheses (none indicated they had), asked not to discuss the experiment with anyone, thanked, and dismissed.

Measures

Type of test being administered. This variable was measured as a check to verify the participant’s recognition that he/she was scoring and relaying results related to the test-taker’s intelligence. Recognition was assessed using a single item, “For your session, which test did the Test-taker complete?” Participants checked one of the following: nonverbal perception, speaking
ability, intelligence, or persuasion skill. All participants checked “intelligence,” thus correctly indicating the presumed nature of the test.

Test-taker’s desire to know results. The extent to which the participant believed the confederate really wanted to know the test result was measured to check the participant’s perception of how important the score was to the confederate. We developed three items to tap desire to know: “I got the sense that the test-taker really wanted to know how they did on the test,” “The test-taker seemed curious to learn their results on the test,” and “The test-taker didn’t seem to care if they learned their score or not” (reverse scored). Participants responded using a 7-step Likert-type scale anchored by 7 (Strongly Agree) and 1 (Strongly Disagree), where higher numbers correspond to a greater sense that the confederate desired to know the score ($\alpha = .87, n = 134$).

Perceived news valence. Perceived news valence was measured to determine whether the various test scores appeared to induce various news valences. Six items developed by the authors assessed perceived news valence. Sample items included, “The test-taker performed well,” and, “The test-taker performed poorly” (reverse scored). Respondents indicated their response using a 7-step, Likert-type scale (1 = Strongly Disagree, 7 = Strongly Agree). Higher numbers correspond to more positive valence judgments. Cronbach’s alpha was .97 ($n = 134$).

Time to response. Time to response served as a behavioral indicator. This variable was derived using the elapsed time in seconds as it was displayed by the internal time stamp system within the video recording equipment. The point at which the sender activates the computer’s “results” screen served as the start point for the timer. The stop-time point was the initial onset of
the sender’s verbal message to the test-taker. Simple subtraction calculated the length of the delay.

**Reluctance.** Seven items developed by the authors assessed sender reluctance. Example stems include “I didn’t want to share my partner’s score with them,” “I felt reluctant to tell my partner how they did,” and “I wasn’t looking forward to giving my partner their result. Senders responded using a 7-step Likert-type scale anchored by 7 = Strongly Agree and 1 = Strongly Disagree. Higher numbers corresponded to greater felt reluctance. These seven items formed a unidimensional scale that accounted for 70.83% of the variance. Cronbach’s $\alpha$ for the scale was .93 ($n = 134$).

**Results**

**Induction checks**

Table 1 lists the means and standard deviations for all three dependent variables as a function of test score group (i.e., superior, average, inferior). An induction check of news valence was performed to verify the relative valences senders perceived for high, average, and low scores, respectively. Comparing the three score groups (from this point forward termed valence categories) revealed a significant omnibus test, $F(2, 133) = 371.55, p < .01, \eta^2 = .85$. Dunnet’s T3 (1980) post hoc comparisons, which do not assume equal variances, revealed each mean differed from the other two, $p < .01$. Inspection of the means reveals that scorers viewed superior scores to be associated with the most positive valences, followed by average scores, with inferior scores being associated with the most negative valences. Thus the induction of news valence was effective and substantial.
A one-sample *t*-test was performed to check the extent to which participants believed the test-taker (i.e., confederate) desired to know the test results. The mean value on this variable was 5.81 (*SD* = 1.29), which was reliably and substantially greater than the scale midpoint of 4, \( t(133) = 20.77, p < .01, \eta^2 = .76. \) Participants indicated they believed the “test-taker” was interested in learning the score.

**Experimenter/confederate effects**

Although all experimenters and confederates were trained to follow their respective standardized protocols, follow up tests were performed to determine whether differences in the primary dependent variables were due to the specific experimenter and/or confederate. No significant experimenter or confederate effects obtained for any of news valence, time to response, or reluctance (largest \( F = 1.38, p > .05). \) Analyses proceed without regard to experimenter or confederate.

**Sex effects**

No significant differences were found for news valence, \( F(3, 133) = 0.15, p = .93, \eta^2 < .01, \) or reluctance, \( F(3, 133) = 0.20, p = .89, \eta^2 < .01. \) However, sex makeup of the dyad did appear to influence time to response, \( F(3, 123) = 3.66, p < .05, \eta^2 = .08. \) Compared to the other three combinations, delays were slightly longer when male participants shared test scores with a female confederate. Although the proportion of variance accounted for by sex makeup was relatively small, sex makeup was added as a covariate to all analyses featuring time to response in order to control for its effects.

**Tests of hypotheses**
Table 2 lists the zero-order correlations among test score, news valence, time to response, and reluctance. To test Hypothesis 1 and Hypothesis 2, a 3 X 2 ANOVA was performed by fully crossing three levels of news valence (superior, average, inferior) with scriptedness condition (scripted, unscripted). Planned contrasts were used to test Hypothesis 3 and Hypothesis 4.

Hypothesis 1 and Hypothesis 2 predicted replications of the MUM effect, using time to response and reluctance as dependent variables, respectively (see Table 3). Controlling for sex makeup, the 3 X 2 ANOVA revealed the anticipated main effect for valence category on time to response, $F(2, 111) = 4.16, p < .05, \eta^2 = .07$. As can be viewed in Table 1, inferior scores (i.e., bad news) were delayed significantly longer than superior scores (i.e., good news). Likewise, using reluctance as the dependent variable revealed a main effect for valence category, $F(2, 113) = 55.39, p < .01, \eta^2 = .49$. More reluctance was felt when the news was bad than when the news was good (see Table 1). Thus, the data were consistent with both Hypothesis 1 and Hypothesis 2. As predicted, the MUM effect replicated in both forms.

Hypotheses 3 and 4 test two explanations for the delay in news sharing. If the delay is merely a function of cognitive negativity associated with choosing negative words, then scripting the sender’s feedback should theoretically relieve the sender from having to formulate the verbal component of the bad news message, which should negate the MUM effect. Thus, scriptedness would be relevant here, and the data should be consistent with Hypothesis 3. That is, unscripted bad news will be delayed longer than scripted bad news.

In addition to, or instead of, the mere cognitive negativity explanation, the observed time delay might function to potentially mitigate face threats. If the delay itself is functional, then...
scriptedness is irrelevant, and the data should be consistent with Hypothesis 4. That is, scripted bad news will be delayed longer than scripted good news.

Table 4 lists the means and standard deviations for both time to response and reluctance as a function of news valence and scriptedness conditions. Pairwise comparisons of cell means from the 3 X 2 ANOVA using time to response revealed that unscripted bad news \( (n = 19) \) was delayed longer than scripted bad news \( (n = 23) \), \( t(24.26) = -2.75, p < .05, \eta^2 = .24 \). Further, scripted bad news \( (n = 23) \) was delayed longer than scripted good news \( (n = 28) \), \( t(49.00) = -2.26, p < .05, \eta^2 = .09 \). Thus, with regard to delay to response, the data were consistent with both H3 and H4.

Senders who delivered scripted bad news were neither more nor less reluctant than senders who delivered unscripted bad news, \( t(43.89) = -0.53, p > .05, \eta^2 < .01 \). However, senders delivering scripted bad news did report feeling more reluctant than senders delivering scripted good news, \( t(39.00) = -8.29, p < .01, \eta^2 = .64 \). Thus, with respect to reluctance, the data were consistent with H4, but not H3.

**Discussion**

The purpose of this research was to explore the nature of the well-documented situation whereby one delays the interpersonal sharing of bad news. Two non-mutually exclusive explanations were tested in the context of an interaction experiment. According to the negative message planning explanation the sender’s “delay” is a result of increased cognitive effort involved in choosing one’s words, merely because negative messages take longer to process because they are negative. The functional explanation holds that senders delay bad news sharing
strategically to mitigate perceived face threats associated with delivering the bad news. Thus, the former explanation is primarily psychological whereas the latter is primarily social.

Naïve test-scorers shared bogus test results with a receiver, and cognitive and behavioral reactions of the test-scorers were recorded. The senders’ feedback was experimentally varied to be either scripted or unscripted in a fully crossed experimental design. The experiment also featured a design intended to heighten the importance of the test (and thereby boost the strength of the news valence induction), as well as improve the time to response variable by minimizing the claim that scripted senders delayed their feedback because they needed time to locate their script. The data clearly and unequivocally replicated the MUM effect (H1 and H2). The reluctance data also revealed that scriptedness condition was not found to influence the sender’s felt reluctance to share the news. A main effect for scriptedness condition emerged such that scripted feedback was shared with more dispatch than unscripted feedback. This finding is consistent with the assumption that the delay to share news is, in part, driven by having the words to say. However, such a conclusion warrants caution for at least two reasons. First, the effect size associated with scriptedness condition was small. Second, no interaction was found between scriptedness condition and valence category for either study (see Table 3). The appeal for scripting dialogue would be to attenuate some of the effect associated with news valence. Because no interaction was found, any effects of scriptedness condition and the effects of news valence would seem to operate additively and largely independent of one another.

Thus, the data provide evidence clearly consistent with the existence of the MUM effect and functional explanation for the MUM effect. The data were also more consistent with the functional explanation than the mere cognitive negativity explanation. However, the data were
more equivocal regarding the mere negativity explanation in that that explanation failed to produce consistent differences between the delay measure and the reluctance measure. In the current research, mere negativity was neither completely falsified nor clearly supported.

**Implications**

Several implications follow from these results. First, this study goes beyond mere MUM effect demonstration and enlightens the process(es) underlying the MUM effect. The data reported here directly inform this tacit assumption by testing two strong explanations. The results are consistent with a functional explanation. This is in line with previous research. It will be recalled that Bond and Anderson (1987) observed a MUM effect only when the sender was visible to the receiver. If planning a negative message alone begot the delay, senders should have hesitated to relay the negative feedback whether or not they were visible to the receivers because the same negative message needed to be communicated in either case. The current research results were consistent with Bond and Anderson’s findings. If increased cognitive negativity slowed message production, then scripting would consistently reduce the delay. It did not.

Second, this research underscores the unique contribution of communication scholars in understanding the interpersonal delivery of bad news. Complete accounts of bad news delivery must consider both the sender as well as the target of the news. Physician-patient approaches largely focus on this process for purposes of minimizing harm to the patient. However, research shows that the bearer of the bad news often pays a considerable toll as well (e.g., Buckman, 1984; Ptacek et al., 2001). Approaches are needed which incorporate the experiences of the sender and receiver to examine the emergent properties of the interaction. A communication
perspective spotlights the components of the process that are inherent in the social interaction (e.g., the strategic communication potential of a sender’s delay of bad news).

Third, these results are valuable to theorists and practitioners from a range of specialties. Understanding the link between the delay of the feedback and the communication it represents suggests a potential strategic move for those who routinely deliver bad news (e.g., health care providers). To the extent that the delay foreshadows the valence of the upcoming message, senders in some situations might be afforded a more reliable means of softening the impact of the news. Plans are already underway to determine if and how receivers perceive such strategic moves.

The current results also inform practitioners in at least one more way. Although scripting specific dialogue might result in more swift news delivery, one thing is clear. Scripting dialogue seems to do nothing to alleviate the psychological reluctance senders feel when faced with delivering bad news. The data are clear in this regard. Thus, these findings might come as a surprise to developers of medical guidelines that routinely include rehearsing the bad news dialogue as part of their advice. If reducing the psychological costs of sharing bad news is the goal, providing the words to say in advance does not in and of itself provide relief.

Finally, language and message processing specialists will also find intrigue in the delay as a functional stimulus. Communication responsibility theory (CRT; Aune, 1998; Aune, Levine, Park, Asada, & Banas, 2005) addresses the extent to which people in conversation assume responsibility for creating shared meaning. In theory, the more responsible one feels, the more likely one is to be direct and the more likely one is to build redundancies into one’s messages. Bad news sharing presents an interesting context in that a sender might delay the onset of the
news as a means of “firing a warning shot” based on the negativity of the consequences for the receiver. Delaying as a means of communication is arguably less direct than sharing the bad news without delay. According to CRT, the directness of a sender’s communication is linked to the sender’s felt responsibility. Thus, the bad news delivery context is an area where the scope and boundary conditions of CRT might be refined. In fact, plans are also underway to leverage CRT in the context of delivering bad news.

Limitations and Conclusion

Some limitations are acknowledged. Most obvious, it cannot be definitively ascertained that absolute levels of bad news or reluctance were instantiated. However, the experiment utilized a testing paradigm and metric well understood and internalized by college undergraduates. Further, senders rated news valences well below the scale midpoint where appropriate, and senders’ behavior was consistent with expectations following lower or higher scores. Finally, when the social awkwardness test of previous research (e.g., Dibble & Levine, 2010) was replaced by an intelligence test as was done here, the news valence induction strengthened. If senders are not taking the low scores to suggest bad news, the observed patterns in the data become much more difficult to explain.

Another limitation concerns how time to response was operationalized. As noted by Dibble and Levine (2010), the decision to base the stop-time on the moment the sender begins his or her first utterance to the test-taker (after activating the score screen) may raise questions because potentially meaningful utterances and interspersed pauses might necessarily be excluded. Despite this possibility, capturing the delay as was done in this research ensured uniformity across cases.
Further, the generality of the findings is admittedly limited. These data were collected using university undergraduates who averaged 22 years of age. Questions are raised as to whether the MUM effect and its associated phenomena are impacted as people age and/or gain experience with delivering valence-sensitive information. Moreover, it is likely that the nature of the bad news in this study differs from an actual physician-patient situation in potentially important ways. The purpose of this study was to provide basic research on the nature of the temporal span whereby the sender delays the onset of the negative feedback. Because of the increased demand for internal validity, a laboratory setting served the need. Future research should determine the extent to which these findings replicate to other types of bad news as well as to real settings in which bad news is communicated.

It should be pointed out, however, that this research differs from most MUM effect demonstrations in that the participants were not predominantly European American. Here, Asians comprised over half the sample. Thus, although a lab experiment was performed, the convergence of these results with those derived from primarily European American samples does lend some credence to the generality of the MUM and associated effects.

Finally, these data do not inform the intentionality of the sender’s delay. It is possible that the delay is affected consciously or unconsciously. From a CRT standpoint (Aune, 1998; Aune et al., 2005), either possibility would be informative as the delay still holds the potential to activate receiver inference-making (e.g., about the valence of the message), and/or address face threats. How senders and receivers coordinate their contributions to understanding deserves further inquiry.
Understanding the process of delivering bad news from the perspective of the sender is important to those who deliver bad news on a regular basis. These data provide direct evidence that the robust temporal delay of the onset of the bad news is more than just time needed to choose one’s words. How the receiver perceives and interprets this delay, as well as the effectiveness of the delay in mitigating face threats, are ripe areas for future research. Therefore, research that continues to explore the nature of the MUM effect is of great value.
References


Footnotes

1The ranges listed here were presented to senders as a heuristic with which to interpret the test score. In actuality, because the random number generator was limited to values from 10 to 90 inclusive, these cutoffs cleanly divided the possible field of scores into three ranges, each containing 27 values: good news, 90-64; neutral news, 63-37; and bad news, 36-10. Restricting the range in this manner simplified analysis while allowing news valence to be treated both categorically and continuously.

2The t-tests conducted here do not assume equal variances. Hence, the fractional degrees of freedom.
Table 1.

*Means and Standard Deviations for All Dependent Variables as a Function of Valence Category.*

<table>
<thead>
<tr>
<th>Valence Category (Score Range)</th>
<th>$M$</th>
<th>$SD$</th>
<th>$n$</th>
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<tbody>
<tr>
<td><strong>News Valence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good News (90-64)</td>
<td>6.44</td>
<td>0.77</td>
<td>41</td>
</tr>
<tr>
<td>Neutral News (63-37)</td>
<td>4.72</td>
<td>1.11</td>
<td>48</td>
</tr>
<tr>
<td>Bad News (36-10)</td>
<td>2.66</td>
<td>1.08</td>
<td>45</td>
</tr>
<tr>
<td><strong>Time to Response (in Seconds)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good News (90-64)</td>
<td>2.77</td>
<td>1.82</td>
<td>37</td>
</tr>
<tr>
<td>Neutral News (63-37)</td>
<td>4.24a</td>
<td>2.86</td>
<td>45</td>
</tr>
<tr>
<td>Bad News (36-10)</td>
<td>5.13a</td>
<td>3.20</td>
<td>45</td>
</tr>
<tr>
<td><strong>Reluctance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good News (90-64)</td>
<td>1.92</td>
<td>0.80</td>
<td>40</td>
</tr>
<tr>
<td>Neutral News (63-37)</td>
<td>2.80</td>
<td>1.14</td>
<td>47</td>
</tr>
<tr>
<td>Bad News (36-10)</td>
<td>4.26</td>
<td>1.43</td>
<td>45</td>
</tr>
</tbody>
</table>

*Note.* For news valence and reluctance, response set is a 7-step Likert-type scale where higher numbers correspond to more positive valence and greater felt reluctance, respectively. Post hoc comparisons using Dunnett’s T3 (which assumes non-equal variances) were used. For news valence, each mean differs from the others at $p < .01$. For time to response, means sharing a subscript do not differ from each other at $p < .05$. For reluctance, each mean differs from the others at $p < .05$. 
Table 2.

**Zero-Order Correlations Among Primary Variables.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Test Score</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. News Valence</td>
<td>.91**</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Delay Before Feedback</td>
<td>-.25**</td>
<td>-.27**</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>4. Reluctance</td>
<td>-.73**</td>
<td>-.78**</td>
<td>.33*</td>
<td>--</td>
</tr>
</tbody>
</table>

*Note.** **p < .01 (two-tailed). *p = .06 (two-tailed). Ns ranged from 127-138. Cases missing data were excluded pairwise.*
Table 3

Analysis of Variance Data

**DV = Time to Response**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex Makeup</td>
<td>1</td>
<td>39.22</td>
<td>39.22</td>
<td>4.57</td>
<td>.04</td>
<td>.04</td>
</tr>
<tr>
<td>Valence Category</td>
<td>2</td>
<td>71.32</td>
<td>35.66</td>
<td>4.16</td>
<td>.02</td>
<td>.07</td>
</tr>
<tr>
<td>Scriptedness</td>
<td>1</td>
<td>34.84</td>
<td>34.84</td>
<td>4.06</td>
<td>.05</td>
<td>.03</td>
</tr>
<tr>
<td>VC X Script.</td>
<td>2</td>
<td>5.53</td>
<td>2.76</td>
<td>0.32</td>
<td>.73</td>
<td>.01</td>
</tr>
<tr>
<td>Error</td>
<td>111</td>
<td>951.78</td>
<td>8.58</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DV = Reluctance**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valence Category</td>
<td>2</td>
<td>178.23</td>
<td>89.12</td>
<td>55.39</td>
<td>&lt;.01</td>
<td>.49</td>
</tr>
<tr>
<td>Scriptedness</td>
<td>1</td>
<td>0.54</td>
<td>0.54</td>
<td>0.33</td>
<td>.57</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>VC X Script.</td>
<td>2</td>
<td>2.37</td>
<td>1.19</td>
<td>0.74</td>
<td>.48</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>113</td>
<td>181.81</td>
<td>1.61</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4

Means and Standard Deviations by Valence Category and Scriptedness Condition

<table>
<thead>
<tr>
<th></th>
<th>GN</th>
<th>NN</th>
<th>BN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scripted</td>
<td>2.72</td>
<td>4.25</td>
<td>3.65</td>
</tr>
<tr>
<td></td>
<td>(0.98)</td>
<td>(4.24)</td>
<td>(1.21)</td>
</tr>
<tr>
<td>Unscripted</td>
<td>2.99</td>
<td>5.03</td>
<td>5.28</td>
</tr>
<tr>
<td></td>
<td>(2.14)</td>
<td>(5.74)</td>
<td>(2.56)</td>
</tr>
</tbody>
</table>

DV = Time to Response (in Seconds)

<table>
<thead>
<tr>
<th></th>
<th>GN</th>
<th>NN</th>
<th>BN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scripted</td>
<td>1.95</td>
<td>3.13</td>
<td>4.61</td>
</tr>
<tr>
<td></td>
<td>(0.89)</td>
<td>(1.21)</td>
<td>(1.48)</td>
</tr>
<tr>
<td>Unscripted</td>
<td>1.72</td>
<td>3.58</td>
<td>4.81</td>
</tr>
<tr>
<td></td>
<td>(0.63)</td>
<td>(1.85)</td>
<td>(1.55)</td>
</tr>
</tbody>
</table>

DV = Reluctance

Note. N = 138. GN = Good news, NN = Neutral news, BN = Bad news. Standard deviations are given in parentheses under cell means.