RESPONDING TO PSYCHOLOGICAL THREATS WITH DELIBERATE IGNORANCE

Causes and Remedies

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When thinking about threats to security, people likely think first about threats to physical or financial security and give little thought to threats to psychological security. Physical and financial threats are, of course, crucially important. Avoiding physical threats, such as violence and harm, or financial threats, which can impair one’s ability to obtain food, shelter, and clothing, is essential for survival. Thus, avoiding such threats is central to meeting people’s most basic needs (Maslow, 1943). Yet, for many people, particularly people for whom these basic needs are met, threats to psychological security are far more common.

Psychological security refers to freedom of emotion, thought, and behavior. Regarding emotion, psychological security means freedom from unwanted emotions and a freedom to experience desired emotions. Regarding thought, psychological security means security in beliefs about oneself, important others, and one’s worldview. It includes the ability to maintain positive beliefs about the self, such as that one is intelligent, attractive, socially skilled, and capable of making good decisions; positive beliefs about close others, such as that one’s friends and family are trustworthy, reliable, and virtuous; and the stability of one’s worldview, such as that one’s world is just, fair, predictable, and controllable. Finally, psychological security includes an element of autonomy and control over one’s life and, ultimately, the freedom to act as one chooses.

In this chapter we explore responses to threats to psychological security, which may come in the form of news or information that impinges on how people wish to feel, think, and behave. People confronting information that threatens their psychological security can use a number of strategies to dampen the blow of unfavorable news. One strategy is bracing, whereby people shelve an optimistic outlook in favor of a more realistic or sometimes even pessimistic outlook. For example, when awaiting medical results, people might shift their expectations downward as the time they will receive their results draws near, sometimes becoming quite pessimistic in the moments just before learning the outcome (see Carroll, Sweeny, & Shepperd, 2006, for a review). The downward shift in expectations is sensible because expectations influence how people feel about their outcomes. When expectations exceed outcomes—e.g., when people expect good news but receive bad news—people feel bad; when outcomes exceed expectations—e.g., when they expect bad news but receive good news—people feel good. By lowering expectations (i.e., expecting the worst), people reduce the likelihood that their expectations will exceed their
outcomes. Even a negative outcome can seem positive if one imagines an even worse alternative (Shepperd & McNulty, 2002).

People facing the prospect of bad news have another strategy at their disposal. Rather than bracing for possible bad news, people can avoid the news entirely. This alternative strategy occurs when people never return to learn the results of a medical test or avoid opening a credit card bill after a spending spree. From our perspective, unwanted information represents a threat to psychological security—it threatens people’s desired emotions, cognitions, or behaviors. However, by avoiding the information, people can remain blissfully ignorant of bad news. In a sense, avoiding information is a strategy of choice when people prefer uncertainty to the possibility of bad news.

In this chapter we review research on information avoidance in response to threats to security. We first define information avoidance, discuss why people avoid information, and address when and why information avoidance is a problem. Next we discuss approaches to reducing information avoidance and review several recent pertinent studies. The research we discuss is almost exclusively in the health domain because that is where researchers have conducted the most studies. Finally, we place avoidance within a resource model that acknowledges the dynamic between the resources demanded by the situation and the resources available to respond.

Information Avoidance

Defining Information Avoidance

Information avoidance is “any behavior designed to prevent or delay the acquisition of potentially unwanted information” (Sweeny, Melnyk, Miller, & Shepperd, 2010, p. 340). This definition is rather rich and requires some fleshing out. First, the behavior may manifest as action or inaction. Regarding action, people may take deliberate, active steps to avoid information, such as leaving the room when a topic comes up in conversation or turning off the television or radio. In a sense, it can entail covering one’s ears or eyes. Regarding inaction, people can avoid information by doing nothing. They do not go to a physician when they detect a suspicious lump, they do not return for the screening results, or they do not open an email that might provide unwanted information.

Second, the avoidance need not be permanent. Rather, people may temporarily avoid information until they can muster resources to cope with the information should it be bad. Third, people do not just avoid unwanted information about themselves. People sometimes avoid potentially threatening information about others, including family members and former and current romantic partners (Howell & Shepperd, 2011; Price, Gesselman, Howell, & Shepperd, 2014) as well as information that threatens their worldview (Jonas, Greenberg, & Frey, 2003).

Fourth, we are careful to distinguish unwanted information from undesirable information. Sometimes people avoid information about desirable, exciting events such as the outcome of a sports event they have recorded for later viewing, or the outcome of a movie they wish to view in the future. This distinction appears in couples’ decisions about learning the sex of a forthcoming child, where 42% of soon-to-be parents in one study opted not to learn the sex of their child before birth, stating that the news would spoil the surprise (Shipp et al., 2004). In these instances, the threat is affective (and a security threat when broadly conceived) in that the information threatens how people wish to feel by diminishing positive emotions.

Finally, information avoidance is distinct from other, similar constructs. Information is distinct from information dismissal. With information dismissal, people have the information but do not like it and therefore derogate it or find other ways to disregard it (Ditto & Boardman, 1995; Ditto & Lopez, 1992). Information avoidance is also distinct from inference avoidance. With inference avoidance, which features prominently in various models of self-deception, people have the information but fail to draw a seemingly logical conclusion from the information (Greenwald, 1997; Paulus &
Seudfeld, 1988). That is, they fail to connect the dots. Professors sometimes see inference avoidance among undergraduates who persist in their belief that they will gain admission to medical school even though their GPA and MCAT scores decisively suggest otherwise.

Importantly, not all failures to seek information are instances of information avoidance. Sometimes people remain ignorant about something not because they are avoiding it but because they do not care. That is, the amount of effort required to get the information exceeds the value of the information. For example, a person who does make the effort to learn the capital of Cameroon is probably not avoiding the information but rather does not care enough to seek the information.

**Information Avoidance Is Pervasive**

Although many people might like to think of themselves as information seekers who bravely confront threats rather than burying their heads in the sand, everyone avoids information at one time or another. For example, after making a purchase, people often display information avoidance. After all, people do not want to hear that someone else paid less than they did for an item, or to learn that they made a foolish purchase. Such information is personally threatening because it suggests that one makes poor decisions, which threatens psychological security by implying that one is incapable of good judgment.

And there are other examples. Investors are less likely to check their portfolios when financial markets are doing poorly than when financial markets are doing well (Karlsson, Loewenstein, & Seppi, 2009). Likewise, people often do not want to hear about how the political candidate they championed engaged in unsavory deeds or how their sports hero used performance-enhancing drugs. Consistent with this notion is a study showing that voters appear to be blissfully ignorant of the misdeeds of their preferred political candidate (Sweeney & Gruber, 1984). Information avoidance also appears among sports fans, who are less likely to visit internet websites to read online articles about their favorite team following a loss than following a win (Boen, Vanbeselaere, & Feys, 2002). In each of these instances, people avoid threats to the psychological security of their beliefs by avoiding information.

To give a more universal example, few people want to know about their parents’ sex lives or, heaven forbid, their parents’ masturbation habits (Howell & Shepperd, 2011). Finally, anyone who has tried to lose weight knows that the bathroom scale can provide unwanted information and that there are times when it is wise not to weigh oneself. Foremost, never step on the scale at the end of the day, especially after cheating on one’s diet; it can only bring bad news. It is best to step away from the scale and remain ignorant of any extra pounds one has accumulated.

**The Motivations Underlying Information Avoidance**

Although people often offer many reasons for avoiding information, the reasons fall into three broad categories that represent threats to the security of how people wish to feel, think, and behave (Sweeney et al., 2010). Specifically, as mentioned earlier, people avoid information when they anticipate the information will threaten how they feel, what they wish to believe, or how they wish to act. Importantly, these categories are not discrete. Information that threatens one form of security (e.g., behavioral) may also threaten other forms of security. However, for simplicity, we distinguish between these three threats below.

**Emotion Threats**

People sometimes avoid information when it threatens the security of their affect. That is, they avoid information they believe may produce an unpleasant emotion or diminish a pleasant emotion.
For example, studies that have examined returning for the results following HIV testing find that anywhere from 12% to 55% of people who are tested for HIV infection never come back to learn their results (e.g., Hightow et al., 2003; Tao, Branson, Kassler, & Cohen, 1999). Other studies suggest that the dominant reason people give for avoiding learning their HIV status is fear and worry about the results (Lyter, Valdiserri, Kingsley, Amoroso, & Rinaldo, 1987; Sullivan, Lansky, & Drake, 2004; Zapka, Stoddard, Zorn, McCusker, & Mayer, 1991). Concerns with unpleasant emotions also figure prominently in decisions to avoid information relevant to Huntington’s disease (van der Steenstraten, Tibben, Roos, van de Kamp, & Niermeijer, 1994), Alzheimer’s disease (Cutler & Hodgson, 2003), genetic testing for cancer (Thompson et al., 2002), and mammography results (Miller, O’Hea, Lerner, Moon, & Foran-Tuller, 2011). Clearly, learning that one has or is susceptible to a frightening disease can represent a serious threat to affective security. People sometimes cope with the threat by remaining ignorant of their susceptibility.

In a real sense, this first motivation for avoidance represents an attempt to regulate emotional security. But what emotions are people attempting to regulate? More to the point, is avoidance a response to how people feel in the moment (i.e., their current affect) or a response to how people think they will feel in response to the news (i.e., their anticipated affect)? If current emotions rather than anticipated emotions are driving avoidance, then people should show greater avoidance when they are currently worried or fearful. However, if anticipated emotions rather than current emotions are driving avoidance, then how worried or fearful they currently feel should be relatively unimportant. Instead, people will show greater avoidance when they anticipate that the news will make them feel bad. We explored these opposing possibilities and found support for the latter—anticipated affect is what really matters. Specifically, we provided participants an opportunity to learn their risk for a health outcome with symptoms similar to diabetes (e.g., trouble processing nutrients, weight gain, potentially early death). Nineteen percent of our participants opted to avoid learning their risk. Importantly, whereas “avoiders” and “seekers” did not differ in the level of negative affect they reported as they made their decision, avoiders anticipated that they would experience significantly greater negative affect than did seekers (Nielsen & Shepperd, 2012).

**Belief Threats**

People hold many beliefs that are important to their identity. Some of the beliefs are about themselves, such as that they are attractive, intelligent, socially skilled, liked by others, and healthy. However, other beliefs are about important others such as friends and family members, political representatives, and sports heroes. And still other beliefs are about their worldviews, which can be incorporated into thoughts about their group, school, city, country, or religion. People are understandably reluctant to confront information that threatens the security of their cherished beliefs and may sometimes avoid the information.

For example, many people in the United States regard being egalitarian, i.e., non-prejudiced, as an important, valued characteristic. Accordingly, Americans prefer to view themselves as egalitarian and expect that a measure of their implicit beliefs—beliefs they cannot consciously control—will reveal that they are egalitarian (Howell, Collisson, et al., 2013). But what if people suspect that an implicit measure of egalitarianism might reveal that they are prejudiced? In a study addressing this question, we found that White Americans were more likely to avoid feedback about their level of prejudice toward Black people if they received evidence suggesting that the feedback might reveal that they are prejudiced toward Black people than if they receive no such suggestive evidence (Howell, Collisson, et al., 2013).

Of course, not all information is equally threatening to the security of cherished beliefs. For example, most people likely want others to view them as attractive and would regard feedback about their attractiveness to be potentially threatening. However, for adults, attractiveness feedback
is likely more threatening if it comes from peers than if it comes from young children. After all, peers are presumably more discriminating, better informed, more accurate, and more likely to be a potential partner. In short, the evaluations of peers represent a greater challenge to how people wish to view themselves. Consistent with this reasoning is evidence that American college students are more likely to avoid evaluative feedback about their physical attractiveness if the evaluators are peers from their university than if the evaluators are young children. They also are more likely to avoid evaluative feedback about their physical attractiveness from their peers than from the residents of a retirement community, and even from students at a distant foreign university (i.e., Mumbai University) where the students look physically quite different (Howell, Miller, Sweeny, & Shepperd, 2013).

One final study exploring people’s cherished beliefs bears mentioning. In the United States, people value being intelligent. People spend enormous amount of time and money trying to improve their performance on intellectual achievement tests and are quick to derogate these measures if they receive low scores (Shepperd, 1993). Given the personal security implications of intelligence, such actions are not surprising. People attach social importance to being intelligence (or at least to being viewed as intelligent) and want intelligent mates and intelligent children. In addition, research repeatedly documents a strong link between intelligence, as measured by level of education, and income (Day & Newburger, 2002; Pfeffer, 1977; Ronan & Organt, 1973).

Importantly, how people think about intelligence varies. On the one hand, people can view intelligence as a fixed quantity that one is born with and cannot change. On the other hand, people can view intelligence as a malleable quantity that can increase with hard work and persistence (Dweck, 2000). When performance on an intelligence test is highly valued, no one wants failure feedback that suggests low intelligence. However, failure feedback is particularly threatening for people who view intelligence as fixed (Dweck, 2000).

We find that one’s view of intelligence influences avoidance of intelligence feedback. Specifically, we primed participants to think of intelligence as fixed or malleable and then provided them with feedback that they had performed well (success feedback) or poorly (failure feedback) on an intelligence test. We then provided them with an opportunity to receive detailed feedback about their performance. Participants were more likely to avoid the detailed feedback if primed to think about intelligence as fixed (27.3% avoided) than if primed to think about intelligence as malleable (15.4%). However, the greater avoidance was particularly evident following failure feedback. Specifically, participants primed to think of intelligence as fixed showed greater avoidance following failure feedback (38.9%) than following success feedback (13.3%) (Novell, Shepperd, & Webster, 2013).

In sum, people are motivated to avoid feedback that threatens the security of their cherished beliefs. This motivation is particularly strong when people suspect the news will be bad, the source of the news is credible, and people believe there is little they can do to alter the news or its implications.

**Behavior Threats**

A third reason people avoid information is because they believe it will threaten their behavioral security. That is, people sometimes avoid information that may require them to take action they would rather not take or that otherwise would restrict their ability to behave as they choose. People want control over their behavior. This desire likely springs in part from the fundamental motivation for autonomy (Deci & Ryan, 2002) but also from hedonistic concerns with approaching pleasurable outcomes and avoiding unpleasant ones (Elliot, 2006). Either way, people may sometimes avoid information if the information might obligate them to engage in behavior that is “difficult, inconvenient, demanding, expensive, or unpleasant” (Sweeny et al., 2010, p. 343). Two
self-report studies provide sobering illustrations. The first study examined a sample of Nigerian women who had discovered a suspicious lump in their breasts yet declined to see a physician. The central reason these women reported for not seeing a physician was fear they might have to have a mastectomy (Ajekigbe, 1991). The second study examined commercial sex workers in South Africa and found that the primary reason they offered for not undergoing HIV testing was the fear that an HIV-positive result would force them to give up their source of income (Varga, 2001).

A limitation of these studies is that they are based on self-reported motivations, and the reasons people offer to explain their behaviors may not reflect the actual causes of their behaviors. We conducted a series of laboratory experiments to examine more closely how the obligation of unwanted action influences information avoidance. The experiments manipulated the type of behavior that participants might have to undertake as a consequence of learning the information about their health. In some instances, the behavior was rather benign; in other instances, the behavior was quite onerous. For example, women in one experiment received an opportunity to learn the results of an online risk assessment tool for a serious medical condition. The only catch was that if they learned that they were at high risk for the condition, they were required by the state to take a definitive test, which entailed either a cheek swab or a cervical exam. Whereas 45% of participants opted to avoid learning their risk in the cheek swab condition, 66% of participants opted to avoid learning their risk in the cervical exam condition (Howell & Shepperd, 2013a).

Two follow-up experiments extended the findings of this study by varying the treatment for the condition rather than the test procedure. For example, in one of the follow-up experiments, the treatment required taking a pill daily either for two weeks (low obligation) or for the rest of one’s life (high obligation). The results revealed that more participants opted not to complete the online assessment tool in the high obligation condition (52%) than in the low obligation condition (21%) (Howell & Shepperd, 2013a). Collectively these studies reveal that the more onerous the behavior necessitated by the information, the more likely people are to avoid learning the information.

Summary

In sum, people encounter threats to psychological security when they confront information that threatens how they wish to feel (i.e., information that creates an undesired emotion), think (i.e., information that challenges a cherished belief), or behave (i.e., information that obligates taking unwanted action; Sweeny et al., 2010). Our research suggests that people sometimes respond to these security threats by avoiding the information that poses such threats. By avoiding threatening information people can regulate their affect, sustain a desired identity, and control how they spend their time. For example, by declining medical testing for worrisome diseases, people can avoid undesired future affect. By avoiding feedback about their intelligence, beauty, or beliefs about minorities, people can maintain the belief that they smart, attractive, and egalitarian. And by avoiding diagnostic medical test feedback, people can avoid unwanted medical procedures or treatments.

Reducing Information Avoidance

Information avoidance is not always problematic. If a person cannot change the situation or use the information to prepare for the future, then the information may have no utility or function. It will only create negative feelings such as sadness, guilt, regret, and remorse. For instance, learning about the sexual behavior of one’s parents offers no clear benefits and may sully the image of one’s parents. Moreover, information avoidance may be a sensible strategy to delay learning bad news until a person can muster the resources to deal with such news. Finally, it may be wise to avoid information that is of questionable reliability or validity. Such may be the case for men monitoring...
their PSA (prostate specific antigens) level. Recent evidence suggests that changes in PSA level may not be useful in detecting aggressive prostate cancer and that PSA screenings can be harmful if they lead to unnecessary biopsies or interventions (Welch, Schwartz, & Woloshin, 2011).

However, to the extent that learning information is necessary for circumventing an unwanted outcome or making beneficial changes, then information avoidance can be problematic. For example, oral cancer is extremely treatable if caught early (i.e., in Stages 1 or 2). However, the 5-year mortality rate climbs precipitously if oral cancer is caught late (i.e., in Stages 3 or 4; Piccirillo, Costas, & Reichman, 2007). Unfortunately, a primary barrier to early screening for oral cancer among at-risk populations is fear of the results (Howell, Shepperd & Logan, 2013; Sheperd, Howell, & Logan, 2014). It appears that many people would rather remain ignorant than learn they have oral cancer. This illustration reveals a troubling paradox in which the response to an anticipated psychological security threat—the decision to remain ignorant rather than learn that one might have cancer—threatens actual physical security. That is, efforts to preserve a sense of psychological security by covering one's eyes to a potential problem ironically can undermine life-prolonging interventions. Clearly, information avoidance can cause real harm, which raises an important question: How do we reduce information avoidance? Our research suggests three possible interventions.

**Increase Perceived Control/Efficacy**

A common component of many health behavior theories is a sense of personal control or agency. For example, learned helplessness theory proposes that an absence of control leads to depression (Seligman, 1975) as well as poor physical health (Chang & Sanna, 2007; Wallerstein, 1992). In a similar vein, social cognitive theory proposes that self-efficacy is important to achieving health behavior changes such as weight loss, smoking cessation, and increases in exercise (Bandura, 1985). Likewise, self-determination theory suggests that people have a fundamental need to be a causal agent in their life events (Deci & Ryan, 2002). Finally, the theory of planned behavior describes the central role of perceived behavioral control (i.e., the perception that one can engage in chosen actions) in predicting behavioral intentions and, ultimately, behavior (Ajzen, 1985). Although these theories differ in their approaches to behavior, they all emphasize that people are more likely to engage in a behavior if they want to engage in that behavior and believe their actions will be successful in yielding a desired outcome. Moreover, countless studies demonstrate that increased perceptions of control correspond with greater intentions to engage in behavior and actual behavior. For example, people report stronger intentions to quit smoking and to lose weight to the extent that they believe that smoking and exercise are under their personal control (Armitage, 2005; Johnson, Kalaw, Lovato, Baillie, & Chambers, 2004).

Low perceived personal control does not just affect behavior directed toward achieving goals; it also can affect information seeking and avoidance. Specifically, people may be inclined to avoid information about an outcome if they perceive that they cannot control the occurrence of the outcome or its consequences. When perceived control is low, the information often has little utility. For example, learning after the fact that you paid more than someone else for a non-refundable product does little more than create ill feelings. Not surprisingly, people prefer to avoid such feedback, particularly if they believe they cannot change, reverse, or otherwise undo the outcome (Frey, 1981; Frey & Rosch, 1984).

Preliminary evidence that low control beliefs can prompt information avoidance comes from a study that manipulated control beliefs in hypothetical scenarios and examined interest in genetic testing. Participants learned about a disease with symptoms akin to Huntington’s disease (e.g., onset in adulthood, a painful death 10–20 years after appearance of symptoms). When the disease was described as treatable, the vast majority of participants expressed interest in a genetic test for
the disease. When it was described as untreatable, fewer than half of participants expressed interest in genetic testing (Yaniv, Benador, & Sagi, 2004). Other studies have found similar results for other diseases (Dawson, Savitsky, & Dunning, 2006; Shiloh, Ben-Sinaï, & Keinan, 1999).

In our own research (Melnyk & Shepperd, 2012), we examined whether increasing controllability beliefs might serve as an intervention to diminish information avoidance. We tested our intervention by varying women’s control beliefs about getting breast cancer. In the first of two studies, college women completed a breast cancer risk inventory that asked information about their health history and health practices. Embedded in the inventory were six items (age, race, personal history of breast cancer, age at time of first menstrual period, number of first-degree relatives who have had breast cancer, and prior breast biopsies) from a statistical algorithm for computing a woman’s risk for breast cancer (the Gail Model; National Cancer Institute, n.d.).

Next, half of the women saw a screen describing controllable predictors of breast cancer risk including exercise, diet, and vitamin D intake (controllable condition), whereas the other half saw a screen describing uncontrollable predictors of breast cancer including family history, early onset of menstruation, and exposure to pesticides and pollutants (uncontrollable condition). Importantly, we also included a no information control group, which was useful for revealing women’s ambient level of avoidance regarding breast cancer—how much they avoid in the absence of our controllability manipulation. Finally, we offered all women the opportunity to learn their risk for breast cancer.

Breast cancer is, of course, a serious disease. Aside from skin cancer—which is generally less lethal—breast cancer is among the most frequent cancers in women (DeSantis, Siegel, Bandi, & Jemal, 2011). Roughly 1 in 12 women will receive a diagnosis of breast cancer in their lifetime. Not surprisingly, breast cancer has received considerable media attention and even has its own clothing accessory (a pink ribbon). Thus, we would expect few women to avoid learning their breast cancer risk. The more important issue was whether controllability would affect avoidance of breast cancer risk information.

The left side of Figure 16.1 presents our results. As evident from the first two bars in the figure, more women avoided learning their breast cancer risk in the uncontrollable condition (26%) and the no information condition (21%) than in the controllable condition (6%). We observed no difference in avoidance between the uncontrollable condition and the no information condition. Responses to items assessing participants’ perceptions about the controllability mirrored these findings: the women in the no information condition closely resembled women in the uncontrollable condition. However, having women read about controllable predictors of breast cancer served to increase their perceptions that breast is controllable, which in turn diminished avoidance. As evident in the right side of Figure 16.1, our findings were replicated when we repeated the study on a sample of women for whom breast cancer was more immediately threatening (age range 35–79 years, mean = 51.1 years; Melnyk & Shepperd, 2012).

In sum, our research suggests that prompting people to think about the control they can exert in a situation reduces avoidance. Increasing efficacy beliefs makes a possible threat seem more manageable and thus less threatening. It is noteworthy that we prompted participants in our studies to think about controllable risk predictors of breast cancer and not the extent to which breast cancer was or was not treatable. Interestingly, uncontrollable predictors of breast cancer such as family history have a far greater influence on the occurrence of breast cancer than do controllable predictors such as exercise, diet, or the ingestion of vitamin D (Lappe, Travers-Gustafson, Davies, Recker, & Heaney, 2007). Finally, participants could not enact any of the behaviors suggested by the controllable predictors in the few moments before receiving their breast cancer risk feedback. Collectively, these features of our controllability intervention suggest that general feelings of control were responsible for the reduction in avoidance we observed rather something specific about avoiding breast cancer per se. The implication is that alternative approaches to bolster control
beliefs (e.g., increasing perceptions of control in other areas of one’s life or increasing perceptions of secondary control such as control over the symptoms, treatment, or the way one chooses to live with cancer) would also have been effective interventions. Consistent with this reasoning is the evidence described earlier showing that people are more receptive to genetic testing and receiving risk feedback for diseases that are treatable (Dawson et al., 2006; Shiloh et al., 1999; Yaniv et al., 2004).

Increase Contemplation

Dual process theories of thinking and information processing propose that people have two systems for processing information (Albarracin, Johnson, & Zanna, 2005). The first is a “hot system” that is emotion/intuition based. The hot system responds quickly, often automatically, to stimuli (Abelson, 1963). It is often evident in impulsive behavior. The second is a “cold system” that is logic based. The cold system is slower, more controlled and conscious, and more responsive to a critical examination of facts and evidence as well as the short-term and long-term implications of information. The cold system is often evident in more deliberative responses.

Some health theories use a variation on dual process models to explain how people respond to threatening information about their health. For instance, according to the Extended Parallel Processing Model (Witte, 1992, 1994), people confronting a threatening message can respond in one of two ways. On the one hand, they can engage in fear control, whereby they attempt to escape or reduce negative emotions associated with the threat. Fear control is a hot system approach that represents an automatic defensive response to unwanted information. It often reflects an attempt to run from, dismiss, or derogate the threat. On the other hand, people can engage in danger control, whereby they attempt to address the feared outcome. Danger control is a cold system approach and represents a cognitively driven response to unwanted information. It often reflects an attempt to reduce the danger by decreasing personal risk behavior or engaging in health promotion behavior. The distinction between fear control and danger control again illustrates the trade-off between automatic attempts to defend against anticipated psychological security threats and more long-term strategies that promote actual physical security.

Similar to other researchers, we believe that information avoidance often emerges from the hot/fear control system (McQueen et al., 2012). Specifically, one immediate, gut-level response to threatening information is to avoid the information entirely, which allows people to maintain the belief—perhaps the illusion—that all is well. In line with this suspicion, participants in one study
were more likely to avoid learning their risk for a disease if they had a negative automatic or “gut” reaction to learning information (Howell, Ratliff, & Shepperd, 2014).

The dilemma facing interventionists is how to shift people from the hot system when it leads to maladaptive information avoidance. One approach entails inducing contemplation. Contemplation encourages more deliberate information processing (Fletcher & Carruthers, 2012)—it prompts people to switch from the hot, emotional system to the cold, analytic system (Alter, Oppenheimer, Epley, & Eyre, 2007). In a sense, it disengages the automatic, emotion-based response, allowing people to respond in a more thoughtful, logical fashion (Batha & Carroll, 2007).

From our perspective, prompting contemplation, particularly of the reasons for seeking vs. avoiding potentially threatening information, shifts thinking from immediate, visceral threats to emotional security to the long-term benefits (and costs) to security of learning the information. As a consequence, people move beyond an immediate fear response (i.e., responding in ways to avoid or escape feelings of fear that are linked to the information) to a more distal danger response (i.e., responding in ways to lower the danger associated with ignoring the information; Howell & Shepperd, 2013b).

Several studies from our lab demonstrate that contemplation can reduce information avoidance. In the first study (Howell & Shepperd, 2013b, Study 1), participants watched an informational video about type-II diabetes and then completed an online diabetes risk calculator. Participants next read a message on the screen that offered the choice of learning or not learning their risk for type-II diabetes. Importantly, some participants completed a short questionnaire before making their decision that asked how they would feel and cope if they learned they had type-II diabetes, as well as whether they would regret learning vs. not learning their results (contemplation condition). Other participants completed this questionnaire after they made their decision (no contemplation condition). Intuitively, one might think that responding to these sorts of questions would elicit greater avoidance because the questions draw attention to, among other things, what it would feel like to get bad news. However, we argue that answering these questions forces people to move beyond their immediate feelings of fear (e.g., I’m scared of learning I have diabetes) to considering the long-term costs vs. benefits of learning vs. not learning their results. As such, we argued that answering these questions before making their decision would reduce information avoidance. Consistent with this reasoning, fewer participants declined to learn their risk for type-II diabetes in the contemplation condition (25%) than in the no contemplation condition (44%).

Study 2 replicated Study 1 with cardiovascular disease (CVD) and using a clearer manipulation of contemplation (Howell & Shepperd, 2013b, Study 2). Specifically, before choosing to receive CVD risk feedback, participants listed and rated the strength of their reasons for seeking and avoiding CVD risk feedback (contemplation condition) or listed facts about CVD (no contemplation condition). Consistent with Study 1, fewer participants declined to learn their risk for CVD in the contemplation condition (28%) than in the no contemplation condition (55%).

In these first two studies, seeking is clearly the wiser choice because knowing one’s risk is important should one need to take action to address the threat. In short, avoidance was the rationally inferior choice. But what if avoidance is not the rationally inferior choice? For example, when there is nothing a person can do to reduce or avoid the negative health outcome, learning one’s risk may do little more than make the person feel scared or vulnerable. In such instances, contemplation might have no effect on avoidance. To test this possibility we conducted a third study (Howell & Shepperd, 2013b, Study 3) in which participants could learn their risk for a (fictitious) enzyme deficiency. We included the same contemplation manipulation we used in Study 2. However, we also included a treatability manipulation. All participants learned that the enzyme deficiency could cause severe medical problems. However, some participants believed the enzyme deficiency could be treated by a daily pill regimen (treatable condition), whereas other participants believed that the enzyme deficiency could not be treated (untreatable condition).
Figure 16.2 presents the results of our third contemplation study. The results on the right side of Figure 16.2 replicated the results of the first two contemplation studies. When the enzyme deficiency was treatable, fewer participants declined to learn their risk in the contemplation condition (20%) than in the no contemplation condition (53%). When the enzyme deficiency was untreatable (left side of Figure 16.2), we observed no difference in avoidance of risk feedback between participants in the contemplation condition (40%) and in the no contemplation condition (55%).

The pattern of findings is important because it ruled out several alternative explanations for our earlier findings. First, in the prior two studies participants may have surmised in the contemplation condition that we were examining information seeking and avoidance and simply chose the response they thought was preferred. Second, people sometimes infer their attitudes based on the accessibility of attitude-related thoughts (Schwarz, Bless, Strack, Klumpp, Rittenauer-Schatka, & Simons, 1991). People in the no contemplation condition of Study 2 who had difficulty generating facts about CVD may have concluded that CVD was unimportant to them and thus were less inclined to seek risk feedback. Third, the contemplation manipulation in Studies 1 and 2 may have prompted greater thinking but not greater contemplation, and it was the thinking, and not the contemplation, that reduced avoidance of risk feedback. Yet if these alternative explanations were valid, we would have observed greater avoidance in the contemplation condition than in the no contemplation condition regardless of whether the enzyme deficiency was or was not described as treatable.

In sum, the studies we have conducted on contemplation reveal that prompting people to contemplate their reasons for seeking vs. avoiding threatening information can reduce avoidance. Moreover, it appears to do so by shifting attention from immediate emotional concerns to more circumstantial thoughts about the utility of the information. In a sense, it shifts attention away from immediate anticipated psychological security needs associated with reducing fear to long-term physical security needs associated with reducing danger. Importantly, contemplation reduces
avoidance only in circumstances where people have some control over how the future will unfold (i.e., when the information pertains to a disease that is treatable). It has no effect when control is low (i.e., when the information pertains to a disease that is untreatable).

**Affirm Overall Integrity**

Researchers have proposed a variety of fundamental needs or motives underlying human behavior, ranging from the need for consistency (Bator & Cialdini, 2006), to the need to belong (Baumeister & Leary, 1995), to the need for existential meaning (Mascaro & Rosen, 2006), to the need for autonomy (Deci & Ryan, 2002). One motive that emerges repeatedly in any discussion of the topic is self-enhancement (Sedikides & Gregg, 2008), the motive for people to maintain a positive sense of self-worth.

Although the motive to self-enhance has many champions and features prominently in many theories, among the most important theories is self-affirmation theory, which has yielded a number of fascinating findings. Similar to other self-enhancement theories, self-affirmation theory proposes that people are motivated to view themselves as good and competent (Steele, 1988). When they experience a threat to their self-worth, people typically respond by disparaging, dismissing, or avoiding the source of threat. The challenge is to make people receptive to threatening information, and this is where self-affirmation theory departs from other self-enhancement theories. According to self-affirmation theory, people’s ultimate goal is to maintain an overarching sense of self-worth or integrity. Any specific threat to self-worth is relatively unimportant provided the person can maintain his or her larger sense of self-worth. Increasing receptivity to threatening information thus requires that people affirm in advance their overall self-worth or affirm their self-worth in a specific, important, and unrelated area. When people are affirmed, the threatening information is rendered less menacing. In short, inducing people to affirm an aspect of the self that is unrelated to the threat they confront serves to highlight their global sense of self-worth and makes them more open to threatening information (Sherman & Cohen, 2006).

Consistent with this reasoning are the results of several studies that find that affirming people’s overall integrity makes them more receptive to health threats (Harris & Epton, 2009, 2010; Harris & Napper, 2005). For example, in one study female coffee drinkers described instances when they demonstrated a characteristic that was highly important to them (affirmation condition) or unimportant to them (no affirmation condition). They then read a description linking coffee consumption to breast cancer. Participants were more accepting of the message and reported greater intentions to change their coffee consumption in the affirmation condition than in the no affirmation condition (Sherman, Nelson, & Steele, 2000). Other research finds that affirming people can increase healthy behavior in response to health messages (Epton & Harris, 2008).

Can affirming people reduce avoidance of threatening information? In three studies, we showed that it can. In the first study, participants listed traits that were central to their self-concept, then wrote a few sentences either about a time when they successfully demonstrated the trait (affirmation condition) or about a time when a friend successfully demonstrated the trait (no affirmation condition). Presumably, writing a few sentences about how they demonstrated a trait central to their self-concept serves as a reminder of their overall self-worth and integrity, whereas writing about how a friend demonstrated the trait does not.

After writing the sentences, participants watched a video describing an enzyme deficiency with dire consequences (e.g., exhaustion, inability to process nutrients, early death). Next, we offered participants an opportunity to learn their lifetime risk for the deficiency based on their responses to a risk calculator. We made the default response to receive their risk feedback so that participants had to take action if they wished to avoid seeing their risk feedback. Consistent with our predictions, affirming participants reduced information avoidance. Whereas 55% of participants opted
not to receive their risk feedback in the no affirmation condition, only 16% of participants did so in the affirmation condition (Howell & Shepperd, 2012).

Study 2 replicated Study 1 but included a manipulation of obligation (i.e., a behavioral security threat). Specifically, participants learned that if the online assessment revealed that they were at high risk for the deficiency, they should consider visiting their regular doctor and possibly undergo a physical examination (low obligation condition), or they would be required by state law to undergo a definitive test for the deficiency (high obligation condition). As described earlier, high obligation threatens autonomy and increases information avoidance. The results appear in Figure 16.3. Not surprisingly, in the absence of affirmation (top line in Figure 16.3), more participants opted not to learn their risk in the high obligation condition (72%) than in the low obligation condition (40%). However, as evident in the bottom line of Figure 16.3, affirming participants resulted in relatively little avoidance in both the high obligation (21%) and the low obligation (19%) conditions.

Study 3 took Studies 1 and 2 one step further. We noted earlier that people are more likely to avoid personalized risk information for a medical condition when the condition is uncontrollable than when it is controllable. Our third affirmation study examined whether affirming people would reduce information avoidance even for uncontrollable diseases. Once again the procedures were identical to those of Study 1 except that we included a controllability manipulation. Specifically, the video about the enzyme deficiency indicated either that a simple treatment regimen was available for people who had the enzyme deficiency (treatable condition) or that there was no effective treatment for the enzyme deficiency (untreatable condition). Consistent with research we described earlier, when not affirmed (top line in Figure 16.4), more participants opted not to learn their lifetime risk for the enzyme deficiency when it was untreatable (68%) than when it was treatable (35%). However, affirming people (bottom line in Figure 16.4) reduced avoidance dramatically, such that relatively few people avoided learning their risk in both the untreatable (17%) and treatable (11%) conditions.

In sum, our research on affirmation suggests that inducing people to affirm their overall integrity can reduce defensiveness, making them more receptive to potentially threatening information.

![Figure 16.3. The effect of affirmation and obligation on avoidance of feedback.](image-url)
Affirmation serves to make immediate threats to psychological security appear less ominous. Moreover, affirming people seems to ameliorate the deterring effects of behavioral obligation and low controllability on information avoidance. When affirmed, people are less likely to avoid feedback that could potentially obligate them to take unwanted action, and less likely to avoid feedback for outcomes they cannot control (e.g., untreatable diseases).

**Summary**

Our research reveals three remedies or interventions to information avoidance in response to threats to personal security. The first entails prompting people to think about the control they can exert in a situation. It makes a looming threat to personal security seem more controllable and thus less threatening and more manageable. The second entails prompting people to contemplate their reasons for seeking vs. avoiding threatening information. It directs attention away from attempts to defend against an anticipated psychological security threat toward long-term strategies that advance actual physical security. The third entails inducing people to affirm their overall integrity, which can reduce defensiveness and increase receptivity to potentially threatening information. In a sense, it places a possible threat to personal security in perspective.

**Broader Considerations and Conclusions**

We identified three interventions that reduce information avoidance (increase perceived efficacy, induce contemplation, and affirm overall integrity), each driven by a different psychological process. Increasing efficacy influences the extent to which people perceive that they can make changes in their lives and that learning the information is thus useful. Contemplation shifts attention from immediate, visceral concerns to more distal costs and benefits of the information. Affirming overall integrity influences perceptions of personal integrity and serves to make a potential threat, by comparison, seem relatively minor. Although the mechanisms underlying the three approaches to reducing avoidance are distinct, all influence the interplay between the available resources and the resources required to deal with a threat.
How people respond to the security threat posed by bad news is, in part, influenced by the resources available to deal with the threat. The more resources people have available, the more likely they are to address a security threat directly rather than to respond defensively by, for example, avoiding or disparaging the threat (Howell, Crosier, & Shepperd, 2013). However, responses are also influenced by the resources demanded by the threat. The more resources demanded, the less likely people are to address the threat directly and the more likely they are to respond defensively (e.g., by avoiding the threat). Moreover, the resources available and the resources required likely work dynamically such that the more resources people have available, the less daunting a threat will seem. Similarly, the fewer resources required by the threat, the more likely people will be to perceive that they have adequate resources to cope.

Each of the three approaches to reducing avoidance influences the relationship between the resources available and the resources required. Efficacy works at the front-end of the relationship, influencing perceptions of the resources available to manage threat. When efficacy is high, people perceive that they have the ability to address the personal security threat. Contemplation works at the back-end of the relationship, shifting attention away from the immediate emotional demands of psychological threats—which may seem more than one can handle—to the more long-term consequences of having versus not having the information. When attention is no longer focused on the immediate, visceral feelings evoked by the bad news, the bad news seems less demanding of personal resources. Affirmation likely operates on both ends of the relationship. Specifically, affirming overall integrity may increase awareness of personal resources available for addressing threat but may also make the threat seem relatively inconsequential in the grand scheme of things.

In sum, information avoidance is a preemptive response to a threat to personal security. It reflects an attempt to prevent the acquisition of information that threatens how people wish to feel, think, or behave (Sweeny et al., 2010). Our research suggests three approaches to reducing information avoidance: increase perceived efficacy, induce contemplation, and affirm overall integrity. These three approaches are effective because they influence the resources required and available to deal with the threat posed by receiving bad news.

References


