

EPILOGUE

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WRITING ABOUT EMOTIONAL EVENTS: FROM PAST TO FUTURE

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In the span of 20 years, research on writing and health has evolved from a vague notion to a noble scientific enterprise. This book is both exciting and personally gratifying on several levels. On the broadest level, the field has witnessed a striking number of experiments that have demonstrated the remarkable power of translating emotional experiences into language. This relatively simple paradigm has been applied to a wide range of problems among diverse populations. Although the underlying mechanisms are still disputed, the implications for theoretical development and clinical practice are striking. On a more personal level, much of the early work surrounding the writing paradigm are intimately linked to my own professional development. Although I was involved in some of the first studies, the current research and practice associated with writing is now a broadly based undertaking.

The chapters in this book lay the basic foundations of current thinking, some of the most recent results, and describe the relevant literatures. Rather than add more data to the current discussion, this chapter is

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more of an informal essay that gives a personal history to the writing paradigm and suggests some promising future directions for research and practice.

A VERY BRIEF HISTORY

Despite what we tell our students, some of the most interesting research projects come from intuition rather than deductive logic. The writing paradigm has been no exception. Based partly on my own personal experiences with emotional writing (and growing up in a non-self-reflective family with lots of health problems), it just made sense that having people explore their deepest thoughts and feelings would spur health changes. Prior to the first writing study, my students and I had been conducting a series of experiments exploring inhibition, autonomic activity, and health. Although I had wanted to do a writing study for years, the inhibition work gave me a theory to justify the project.

It is important to appreciate the context of the first writing study. I was a new faculty member at Southern Methodist University, just having been turned down for tenure at the University of Virginia. A beginning master's student, Sandy Beall, was eager to conduct her master's thesis right away. The department's introductory psychology classes had an extra credit option that allowed for up to 5 hours of participation time. Because of Sandy's schedule and the availability of lab rooms, the study had to be run in a week. Because of these practical considerations, we decided to have students come to the lab 5 days in a row—the first day to complete questionnaires and the remaining 4 days to do the writing. Why did we have people write about the most traumatic experience of their lives? It just felt right. And we had some preliminary evidence that people who had not talked about personal traumas tended to have more health problems.

The study worked. Because of that, we have always had people write for 3–5 days in a row for 15–20 minutes per day about traumatic or other negative experiences. Why give up a good thing? In retrospect, it is not surprising to see that so many variations on the writing paradigm have also been successful. It appears that the writing topic, the writing perspective (positive vs. negative), the number of days, and other parameters can produce positive health effects. Even the original theory on which the writing paradigm was presumably based is (appropriately) under fire. And I love it.

SEARCHING FOR THE ESSENCE

As the wide-ranging chapters in this book attest, writing about emotional topics has the power to affect peoples' lives and health. I suspect

that every author who has run a writing study has been thanked by his or her participants for the opportunity to participate. One of the remarkable ironies is that people find the writing paradigm beneficial regardless of the instructions or underlying theory driving the study.

What, then, is the essence of the writing paradigm? The problem with this question is that the idea of *essence* is completely dependent on one's level of analysis. It is much like the annoying question that all colloquium speakers are asked these days, "What mediates your effects?" The answer can be culture, social context, perception, memory, neurotransmitter activity, cellular metabolism, or, best of all, a brightly colored fMRI image of a highly specific brain region. The reality is that most of these answers are true.

To me, the essence of the writing technique is that it forces people to stop what they are doing and briefly reflect on their lives. It is one of the few times that people are given permission to see where they have been and where they are going without having to please anyone. They are able to prioritize their goals, find meaning in their past and future, and think about who they are at this point in life. Unfortunately, this "essence" is inherently vague. It encompasses theoretical stances associated with self-regulation, search for meaning, creation of coherent stories about one's life, habituation, emotional awareness and expression, as well as more molecular and molar processes.

To appreciate why writing is effective, we also need to know when it is not effective. That is, what are the necessary ingredients for it to produce beneficial effects? A consideration of the various control conditions and occasional inability to replicate help to answer this question. I suspect that all of the authors represented in this book would agree that the following are necessary conditions for writing to work.

Emotional Processing

People must be given the freedom to invoke their feelings when writing about an emotional topic (see chapter 10, this volume). Emotions are part of virtually all important psychological experiences. Not allowing individuals to acknowledge them by definition restricts their exploring the impact and understanding of their topic.

Most upheavals in people's lives are associated with both positive and negative emotions. Furthermore, many of these feelings are probably contradictory. It makes intuitive sense that exploring just the positive or the negative features of an upheaval can be beneficial. I suspect, however, that giving individuals free reign to explore all of their emotions—both positive and negative—could be optimally healthy.

Creating a Coherent Story

One of the basic functions of language and conversation is to communicate coherently and understandably. By extension, writing about an emotional experience in an organized way is probably healthier than in a chaotic way. Indeed, growing evidence from several labs (see chapters 6, 7, and 8, this volume) suggest that people are most likely to benefit if they can write a coherent story. Any technique that disrupts the telling of the story or the organization of the story is undoubtedly detrimental.

Unfortunately, we are not yet at the point of being able to precisely define what is meant by *coherent*, *understandable*, or *meaningful* when it comes to writing about emotional upheavals. One person's meaning may be another's rumination. Many times in my research I have been struck how a person appears to be writing in a way that avoids dealing with what I see as a central issue. Nevertheless, the person's health improves and he or she exclaims how beneficial the study was. Meaning, then, may ultimately be in the eye of the writer.

Postwriting Processing

An occasional criticism of the writing paradigm is this: "How is it possible to change the lives of people when they write for only four days for 15 minutes per day; how can a total of one hour have such a huge impact?" These critics do not appreciate the fact that after writing, participants report thinking and, often, dreaming about their writing topic. Many people are psychologically in the experiment 24 hours a day for several days. In some of our most spectacular writing failures, participants have been distracted from thinking about their topic immediately after writing or have been forced to return to their classes or jobs as soon as the writing has been completed. In the more successful experiments, the writing lingers in people's minds for hours and days afterwards.

A Trustworthy Setting

From the time of Freud's transference to Roger's unconditional love, therapists have known that there had to be a basic sense of trust and security in the client–therapist relationship. Although the writing paradigm suggests a different relationship between the experimenter and participant, there is still an essence of trust. I suspect that an essential ingredient for success in the writing paradigm is that the participants believe that their writing is taken seriously, is held in confidence, and will have no adverse social effects on them.

Methodological Roadblocks

All of the above factors are probably necessary conditions for the writing paradigm to work. There are undoubtedly additional conditions that have not yet been teased out. For example, there is still some debate about the precise role of language in cementing health improvements over time. It is not at all clear when it is best to confront an emotional experience after its occurrence. Furthermore, we still do not know for whom writing is most beneficial or for what types of emotional upheavals (see chapter 5, this volume). Clearly, future research will continue to explore the basic processes underlying the writing paradigm.

Ironically, a major reason why the “process” or “essence” question has not been answered (in addition to its being an inherently unanswerable question) is because of the essential messiness of our outcome measures. Across the dozens of studies, researchers have used physician visits, immune markers, absentee rates, school grades, and other objective markers as dependent variables. Indeed, this has been a significant selling point for the disclosure paradigm. These studies are repeatedly demonstrating that writing about emotional events can influence people’s lives.

An all-too-often unspoken secret about these measures is that they are terribly, terribly messy. Take physician visits as an example. At a private university where the majority of students are from out of state and live on campus (e.g., Southern Methodist University), approximately 60–70% of the students visit the student health center for illness during their freshman year. At a state university (e.g., University of Texas at Austin), only 35–50% visit the health center during the same time. This means that 30–65% of our samples do not provide helpful or harmful responses no matter how powerful the writing study. To get significant effects, then, most of us need a minimum of 20 participants per condition. Given the messiness of these measures, it is almost impossible to conduct any meaningful internal analyses. This explains why most researchers have not successfully found any self-reports or other process measures to correlate consistently with our dependent measures. Unfortunately, most biological measures are equally variable as are other real world markers that go beyond self-reports (see chapter 9, this volume).

A possible solution to the dependent measure problem is to find one or more reliable health proxy measures. One possibility may be something akin to Klein’s (chapter 8, this volume) working memory measure. If such a measure can be shown to be reliably related to a health marker, it will ultimately allow us begin to detect subtle process measures. Unfortunately, as Klein notes, even working memory measures are highly variable from person to person. Furthermore, within the cognitive and neuropsychology world, there is considerable disagreement about which working memory measures are best.

The other solution requires far more work and is considerably less appealing: We need to run much larger studies with far more measures (see chapter 11, this volume). In the interim, it is wise for writing researchers to collect as many common outcome measures as possible. Although no single study is likely to determine the essence of the writing paradigm, future meta-analyses will help to point us in the right direction.

BEYOND ESSENCE: CAUSES, CORRELATES, AND CONSEQUENCES

Perhaps the most exciting feature of the writing paradigm is that it forces us to cross many of the traditional boundaries in psychology and medicine. As the chapters in this book attest, the writing paradigm has attracted researchers with interests in cognition, social processes, clinical disorders, and health and personality psychology, as well as those primarily interested in mind–body issues (e.g., chapters 2, 3, and 4, this volume).

Where is the research on the writing paradigm going to take us? I have no idea. Some of the many questions that I find particularly intriguing are described in the sections that follow.

Cognitive and Neuropsychological Issues

When people write or talk about emotional topics, it changes the ways they think and organize information. One frustration has been to try to find cognitive measures that truly tap these changes that we see in clinical settings. Until recently, most attempts have been failures. Some of the most exciting new work has been in suggesting the ways that writing appears to affect working memory. That is, after individuals write about trauma, there is an increase in the amount of working memory available. Klein's working memory findings square with Lepore's work on rumination, Smyth's findings on cognitive organization, and our own results concerning better grades and social functioning after writing.

The working memory results also are intriguing because they raise a new set of questions about the writing paradigm. Should we think of working memory as a mediator or as an outcome measure? If we assume that it is a mediator of health changes, we would expect any technique that changed working memory to also improve health. More likely, writing about emotional topics affects some more basic cognitive activity that then ultimately frees up working memory. One can't help but wonder how fast this process is. Surely, after the participant writes the final sentence of his or her disclosure essay, there is not a magical increase in working memory. Intuitively, this must take hours, days, or even longer.

To the degree that increases in working memory are reflecting basic changes in the way people organize complex emotional events, we can begin to focus on the cognitive processes themselves. And this is when we need to bring in the detail people—those neuroscientists who talk about fMRI, brain activity, cellular function, and genetic structure. In the years to come, I would love to know where in the brain these changes occur, how fast they normally occur, and how we can speed up or slow them down. However, as in our search for the essence of anything, we will still only know a small part of the puzzle even after we know all these things.

The Mind–Body Problem and Medical Implications

In many people's eyes, the real magic of the writing paradigm is that it affects such a wide range of health and biological markers. (This, of course, is only magical because most of Western culture implicitly believes in a Cartesian split between mind and body.) Furthermore, the effect sizes of some of the medical outcomes rival what is often found with more traditional interventions.

Is this a specific or general effect? In other words, is the writing intervention particularly helpful for some kinds of health problems and not others? All of the evidence would suggest that writing brings about a general reduction in biological stress. That is, when an individual has come to terms with an upsetting experience, he or she is less vigilant about the world and potential threats. This results in an overall lowering of defenses. To this point, studies have indicated that writing brings about reductions in common illness visits to physicians (e.g., upper respiratory illnesses), reductions in blood pressure, reduced use of pain medication, and long-term changes in immune function (which we frankly do not yet know how to interpret). Given the broad range of improvements in health outcomes, it would be prudent to conclude that writing provokes a rather broad and nonspecific pattern of biological changes that are generally salutary.

As a side note, social scientists should pay far more attention to objective markers of physical health. Both minor as well as major illnesses are known to be related to long-term stress levels. A person suffering from an upper respiratory infection has been infected by a particular virus but also may have a vulnerable immune system. This vulnerability may reflect hours, days, or weeks of stress. Most self-reports in the social sciences ask people to report on their stress at a given point in time or to look back and try to recall what it has been in the past. If a person is feeling happy and well today, she or he will be less likely to recall a stressful episode a week earlier or even a minor bout of a cold 2 weeks before that. Physician visits for illness or other markers of illness behavior serve as an ideal cumulative marker of stress and illness.

Although health measures are a convincing outcome measure, researchers and policy makers must also appreciate their crudeness. Some individuals (particularly poor, ethnic, or stigmatized students) are likely to never visit a university health center the entire time they are in college. By the same token, we generally find that about 20% of the students account for over 80% of student health center visits. Finally, a large percentage of people who seek medical treatment probably do not need to do so in the first place (e.g., a common virus such as a cold for which there is no cure) or go for the wrong reasons (e.g., trying to get out of an exam or get a doctor's excuse to avoid paying an airline penalty for a schedule change). Others who are extremely sick simply do not visit a physician for a variety of reasons, ranging from costs to fear. Health visits and costs, then, are simply rough proxies for true health and illness.

Despite the shortcomings of measures such as physician visits and absenteeism, they have the benefit of having significant medical and workforce costs. Some would argue that our culture pays far more attention to outcome measures that have financial implications than those that simply tap subjective distress.

Language in Writing and the Natural Environment

In the first few years of the writing research, it never occurred to us to actually explore how people wrote about traumatic experiences. Since the mid-1990s, however, it has become increasingly clear that some ways of writing are more likely to yield health improvements than others. At least three promising directions are evolving in the study of language.

The first question that must be answered to everyone's satisfaction concerns whether language use is necessary or only sufficient. By definition, all of the writing studies have required individuals to put their emotional experiences into words. Does expressing a trauma in a nonverbal way—such as through art, dance, or music—provide comparable benefits? Among highly verbal college students, we have typically found that language is a necessary condition for health changes. However, in talking informally with accomplished artists, they have frequently noted that they are able to work through complications in their lives in their work. Written words clearly work well for the literate members of our culture who are comfortable with that medium. Studies are needed that explore the role of talking about traumas among nonliterate participants and, of particular theoretical importance, of nonverbal expression among individuals who naturally express themselves without words.

A second question deals with attempts to isolate healthy versus unhealthy writing styles. That is, is the use of certain word patterns or styles more likely to yield positive results than others? And, by extension, can we train people to write in healthy ways? These questions have been at

the center of my research in recent years. Across multiple studies, it is beginning to appear that individuals who develop good stories and who are able to change their perspectives from one writing session to another are the ones most likely to show health improvements (see also chapters 3 and 9, this volume). The linguistic analyses, then, suggest that people need to change or grow over the course of writing.

Assuming that one of the keys to successful writing is that the participants are able to stand back and reevaluate their lives, can we train individuals to do this in a maximally effective way? This may be a problem similar to the concerns of high school English teachers. Can we ultimately train people to construct good stories that provide meaning and structure to their lives?

A third issue about language concerns how people change in the ways they talk and communicate with others after participating in the writing paradigm. Those individuals who are most likely to benefit from writing are the same ones who tend to change in their writing style from the first to the last day of writing. Do these writing styles reflect changes in thinking styles as well as interaction styles? Much of our ongoing research explores how people naturally talk to others in their social worlds. Preliminary findings indicate that the writing paradigm does, in fact, result in differing speaking patterns and word usage in the weeks after writing. As discussed in chapter 9, this should not be too surprising. As the authors point out, traumatic experience and the writing paradigm itself are all part of a complex social system. When we write about an emotional topic, we tend to think about the topic differently and eventually convey this new thinking to our friends. In summary, writing may be as much a social phenomenon as a cognitive one.

Personality and Individual Differences

Do some people benefit more from the writing paradigm than others? As Lumley and colleagues (chapter 5, this volume) point out, this question is becoming far more complicated than was originally thought. There is mixed evidence that men and people low in alexithymia may benefit more than women and those high in alexithymia. Most of the studies we have conducted on writing have not shown any reliable individual differences that have differentially predicted health outcomes. This, of course, may be related to the crudeness and variability of health outcome measures.

A related question concerns the value of writing among people with different illnesses or traumatic experiences. For example, would cancer patients benefit more than heart disease patients? What about people who have dealt with childhood sexual abuse versus death of a parent? These are extremely important questions for which we have no answer.

Social and Cultural Dynamics

As language research now suggests, the writing paradigm may well be exerting much of its effect on people's social lives. In the years when we were first trying to understand the writing paradigm, we relied heavily on an inhibition argument. That is, having a trauma and not telling others was considered an example of active inhibition, which resulted in long-term cumulative stress. At the time, we did not appreciate how social this argument was. Keeping an important secret from others was a large part of the problem.

As the authors of chapter 9 note, emotion experiences are part of a much broader social system. A person who is keeping a traumatic experience secret from friends is probably doing it in order to maintain his or her friendship network. Furthermore, the person may harbor the belief that by telling this secret, the network will be damaged or destroyed. An extension of this reasoning is that by writing about a trauma, a person may, in fact, begin to deal with his or her social network differently (also see chapter 2, this volume). We have seen this both in lab studies as well as in real world experiences. For example, in a recent writing study, my students and I found that writing about emotional topics resulted in people changing the ways they interacted with people in the real world in the weeks after writing. Those in the experimental condition talked more with others and changed in the ways they used positive emotion words and even pronouns.

In two recent case studies, I inadvertently learned that participants in the writing technique completely changed their social lives. In one case, a woman who had been married 10 years instituted a divorce after writing. In talking with me a year later, she was deeply grateful for the opportunity to do the writing in that it forced her to deal with issues surrounding her unhappiness in her relationship. In another case, a woman who had experienced the sudden death of her husband a year earlier reported that the writing technique completely changed her social circle. Before writing, she spent time with friends who routinely referred to her as strong, courageous, and good humored. After writing, she reported that she realized that she was constantly putting on a happy face for these friends and, instead of changing her relationship with them, she sought out her old friends from childhood. Writing has the power to change the ways we think which, in turn, can affect our entire social world.

Diaries, Popular Culture, and Clinical Applications

Lori Stone, a new researcher in the disclosure world, recently conducted an Internet search for references to journaling. On amazon.com, there were over 9,000 books related to the topic. Using a standard search

engine, she found more than 22,000 entries for journaling. Most of the journaling sites were people's actual journal entries.

People all over the world have traditionally written in diaries or kept journals. They have always intuitively known that putting emotional topics on paper was a good idea. It is not particularly shocking, then, to learn that writing studies are often snatched up by the media. Journals and diaries are hot topics on afternoon talk shows, women's magazines, and lifestyles sections of newspapers.

Is writing in a diary good for your health? You might think that we would know the answer to this question, but we don't. Are diary writers healthier than nondiary writers? I have never found this to be true—but, then again, people who take vitamins are not healthier than people who do not take vitamins. Like diary writers, vitamin users may actually be slightly sicker. However, both vitamin users and diary writers may be far healthier than they would have been had they not taken vitamins or written in diaries. Given the impact that writing studies are having in the media and the large number of people who keep diaries, it is incumbent on us to begin exploring how writing affects people outside the lab.

How much are our studies the product of tight experimental control? Chapters 4, 12, 13, and 14 are ground-breaking in pointing to real world applications of the writing paradigm. Projects such as the ones described in these chapters give us an idea of how powerful the writing paradigm truly is. Unlike controlled lab studies, real world projects will evaluate how writing works with a group of self-selected people—people who are naturally drawn to a writing intervention. The outcome of these projects will ultimately define the staying power of all of our work.

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