

**The Color Red, Waiting On Hold, Volunteerism:  
The Application of Research Findings  
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This is my last article until September. I want to express appreciation to my readers for the e-mail messages you have sent in response to the topics I have addressed. Your insights, comments, and questions are always welcome.

I hope that the next few months prove to be a very satisfying and relaxing time for all of you.

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In the past month I read summaries of three intriguing research studies. The implications of each could serve as a column in its own right. However, I decided to break from my usual format of addressing one topic each month and instead describe all three of these topics in the current article. The first two were reported in the May, 2007 issue of the American Psychological Association's publication *The Monitor* while the third was highlighted in the April, 2007 issue of *The Erickson Tribune*.

**Seeing Red.** Most of us can recall the red marks and comments of a teacher on our tests and paper. For most, these markings immediately triggered feelings of anxiety and disappointment, a testimony to our limitations and lack of knowledge. On tests these red marks were typically preceded by a minus sign, also in red, serving as a vivid, immediate reminder of our shortcomings.

While visiting a school years ago I reviewed students' tests and papers. What was immediately apparent was the absence of red ink and minus signs. Instead, all of the comments of the teachers were in green ink; in addition, the pages were filled with plus signs for points earned rather than minus signs for points subtracted. Next to incorrect answers were such comments as: "This is something we have to review" or "We can discuss what the correct answer is."

I asked several students about this practice of providing feedback. They explained that the faculty realized that the use of red was experienced as unnecessarily critical. They added that points deducted for mistakes highlighted what students did not know rather than what they had achieved. One student said with some humor, "It's also

better for the teachers to do it this way. If they only mark our mistakes and do it in red, it shows them that they haven't done a good job teaching us. It's better for them to add points since it shows them what they've taught us."

I've recounted this story in a number of my workshops. Several educators in the audience have shared similar practices, noting that they shy away from the use of red ink and minus signs. They recall their own negative reaction to feedback offered in red. I have advocated that teachers engage students in a discussion at the beginning of the school year about how they would like to receive feedback on tests and papers, including the color ink that they would prefer the teacher used. One educator who engaged in this kind of discussion observed, "My class always opts for green or blue ink and plus rather than minus marks." She added that one class recommended that she place the words, "To be reviewed" next to incorrect answers.

I asked this teacher if she felt these modifications in feedback made a difference.

She responded, "I haven't done a formal study, but my students seem to be less up-tight about tests and more willing to take risks in class."

Given these observations I was fascinated by an article titled "Seeing Red Impairs Test Performance" by A. Cyncar in *The Monitor*. The article reported a study by psychologist Dr. Andrew Elliot at the University of Rochester in New York. The study, which appeared in the *Journal of Experimental Psychology: General*, looked at the impact of red on a student's performance in situations in which both success and failure were possible. "The results indicate that even just a brief glimpse of red before a test lowers performance."

The researchers examined test performance in six experiments involving 282 undergraduate college and high school students from either the United States or Germany. In one procedure, students completed a packet of 15 moderately difficult anagrams. Each of the packets included a red, green, or black participant number in the upper right hand corner of each page of the packet. Participants were requested to verify the number on each page to guarantee that they looked at the number before starting the anagram. Interestingly, those participants who viewed the numbers in red performed worse on the anagram test than those who viewed the numbers in green or black. The latter two groups performed similarly.

Elliott concluded, “Red seems to provoke test-takers to avoid failure, which brings on anxiety and distracts them from the task.”

The poorer performance under the “red condition” was especially striking since the color red was not even used to give feedback about performance but rather just to denote a page number. Elliott offered several possible explanations for this poorer performance including: (a) students may have formed a negative association with red based on earlier red markings they received for mistakes, (b) people may have a “deep-seated perception of red” as a danger signal, or (c) our “evolutionary past may have primed us to associate red with avoidance.”

Cynkar writes, “Regardless of the motivation, the findings suggest that educators use red judiciously, the researchers say.” Elliott advises, “It would be ideal for teachers to use a variety of different colors to mark mistakes so that failure doesn’t get associated with a specific color in an achievement context.”

It might be easy to minimize these findings, arguing that the color of the ink used should not have an impact on the individual receiving the feedback. However, since it is essential to provide feedback to students about their performance it makes sense to consider the most effective ways of doing so in order that the feedback lead to future learning rather than anxiety and avoidance. I am not suggesting we overprotect children by rescuing them from making mistakes or denying that they made mistakes. Rather, my point is that we want children to develop a healthy outlook about mistakes, an outlook that embraces the belief that mistakes are experiences from which to learn rather than feel defeated and humiliated. Feedback about performance is essential; Elliott’s research prompts us to consider how best to convey this feedback.

**Being On Hold.** Like most people, I have an aversion to waiting on lines. My wife is aware that I do not like to go to a restaurant that does not take a reservation, especially one that is known for long waiting times. I also find it annoying when we have a reservation and still have to wait 30 minutes; it is even more irritating when we are told it will only be another 5-10 minutes before we are seated but in fact 25-30 minutes go by before our table is ready (my patience goes just so far).

In addition, if I am waiting I like to know the reasons why. For instance, I believe that a pilot should inform passengers why the plane has not pulled away from the gate or

why we are sitting on the runway for a longer than expected period. I think it is better to tell passengers the estimated time of departure even if the delay is lengthy rather than not say anything at all. While people may be upset when learning that there is a “hold” for whatever reason on take-offs and landings, they can more easily deal with the reality of the situation than be left in the dark.

Relatedly, when placed on hold on the phone prior to speaking with a real person (an all-too-familiar occurrence in today’s world), I find it disconcerting if a recorded voice does not come on from time to time to announce that I am still on hold and my call will be answered as soon as possible. When the line is silent for a while I often wonder if I have been disconnected. Of course, I don’t like to hear the same message repeated for what seems like an interminable amount of time promising that someone will soon come on the line.

I believe we can all relate to these kinds of events. Thus, I was drawn to a research study summarized in an article “People ‘On Hold’ Prefer Information to Apologies” by S. Dingfelder in *The Monitor*. The study was conducted by Dr. Anat Rafaeli, a professor of organizational behavior at the Israel Institute of Technology, and graduate student Nira Muchichor. They designed a situation in which students called the psychology lab to sign up for an experiment. These students had to hold for almost two minutes before someone spoke with them. “One-third of the callers listened to music while they waited, and another third listened to music that was occasionally interrupted by a message apologizing for the wait. The remaining participants’ wait-music was punctuated at regular intervals by a message telling them how many people were ahead in line.”

The results were thought-provoking. Dingfelder reports, “Almost 70 percent of the students who heard wait music alone hung up before their call was answered, and adding apologies only brought down the call-abandonment rate to 67 percent. In comparison, just 36 percent of the callers who received information about their progress in line hung up.”

Rafaeli contends, “It is not an issue of time; it is an issue of obstacle. What makes me happy is when I realize I am getting closer to removing this obstacle and getting what I want.” Rafaeli adds that people may prefer long, quickly-moving lines to

short, stalled ones. As I read this, I quickly associated to the first time my wife and I took our two young sons to Disney World in 1975. Although the lines for the rides may have been lengthy, they never felt that way since we were always moving; also, the flow was in a circle so that everyone was in constant motion with the sense we were steadily reaching the end point. Good planning, happy customers.

The findings of Rafaeli's study have relevance for many situations. For instance, Rafaeli suggests that grocery stores may want to combine the check-out lanes to create one quick-moving line rather than several short, slow lines. This is a intriguing thought when you consider the number of people who believe they always select the slowest moving line whether at a grocery store or at a bank.

Rafaeli's research should be read and applied by those who are responsible for designing the most effective systems for keeping customers, clients, passengers, etc. satisfied. I have often said that in today's very fast-paced, fast food world we must learn some patience. Obviously, this is best learned when people are provided information about the situation and not left to simmer, sulk, and feel neglected.

**Volunteerism.** The final subject is one that I have addressed in past articles, but I believe deserves on-going focus, namely, the benefits to one's own health when helping others. Meghan Streit reports in an article that appeared in the April, 2007 issue of *The Erickson Tribune*, "Mounting evidence shows that regular volunteer work can keep older adults physically, mentally, and emotionally healthy. From the motivation to stay active to the social connection with other people to the sense of pride that comes from contributing to the community, volunteers can get a lot out of giving."

Stephanie Weiss is a spokeswoman for Experience Corps, a national program that arranges volunteer opportunities within schools for retirees. The volunteers undergo a two-week training program before they are assigned to help students learn to read. Weiss notes, "Participants in an initial pilot study reported increased mobility, fewer falls, reduced medication, and decreased depression. Many of the retirees are in a time of their lives where friends move and their social circles tend to shrink so being in a school with a team of adults is a crucial experience."

Weiss adds, "People get a lot out of helping kids in a very measurable way. Having purpose in their lives, having a support network, and feeling that they have a

reason to get out of the house is really life-saving.” Similarly, LaVerne Campbell, director of volunteers for Volunteers of America, says, “Whenever people feel like they’re needed and wanted, it has benefits for your mental health as well as your physical health.”

While Streit’s article focused on retirees, as my colleague Dr. Sam Goldstein and I have emphasized in our writings about resilience, the benefits of engaging in “contributory activities” is apparent for all age groups.

One final thought until I resume my articles in September. As we seek to add balance to our lives and the lives of our family, let us set aside time for fun and relaxation, and make certain that we are free even for a little while from the intrusions of modern technology (cell phones, e-mails, BlackBerries). We all require some down time. And let us devote a few hours as individuals or families in activities that enhance the lives of others. The benefits of achieving this balance will be noticeable.