My last post concentrated on why many of us want to have at least some temporary unknowns in our lives. What about things we *never* need or want to know? The most mundane examples are things we believe we don't need to know, either because we already know enough or because we regard them as irrelevant. For those of us like me who were born earlier than, say, 5 BC (that's five years Before Computers), knowing how to do basic mental arithmetic was necessary. It isn't anymore, at least as long as we have computers or calculators handy.

Seeking, learning, remembering and comprehending information are not cost-free processes. The human brain also has limits to how much it can absorb and understand. These factors are frequently ignored in prescriptive or rational decisional frameworks. In those frameworks, more information is assumed to be better and the ideal rational agent is assumed to possess and comprehend all available information all of the time. We humans usually cannot do this, but we can and do make choices about which information we ignore or don't bother learning. For an example, look no further than your own choices regarding email filters, search engines, web-feeds, and the like. These instruments reflect what you choose to ignore or filter out.

The problem is that information is a multiplier resource, whereas attention is for all practical purposes a zero-sum resource. You can give information to someone and simultaneously give it to others as well. But if you pay attention to someone you can't pay attention to someone else at the same time. In 1997 David Shenk's "Data Smog" appeared and 10 years later he published an <u>update</u>. He's forthright and self-honest about the things he got wrong, but his primary thesis has stood the test of time: "While our grandparents were limited by access to information and speed of communication, we are restricted largely by our ability to wade through it all." Peter Denning wrote about "info-glut" 28 years ago and a few years back he also presented an <u>update</u>. There, he discusses strategies for intelligently but not excessively filtering information.

Are there any real dangers aside from fatigue or a sense of being overwhelmed by info-glut? According to David Strayer and his co-researchers' <u>publications</u> at the University of Utah's applied cognition lab, there are: Among them, an increased likelihood of automobile accidents due to distractions such as cell phones. Their studies suggest that the risks incurred by driving while using a cell phone (even hands-free) are on a part with those of driving while intoxicated.

Now, how about things we really don't *want* to know, as opposed to those we don't need to? A good friend has resolutely refused to see or listen to anyone tell him about the 2004 <u>Peter</u> <u>Sellers movie</u>. I should hasten to add that this is the one and only facet of reality I've ever seen him shrink from. A long-time fan of the comedic actor, he wished his memories and appreciation of Sellers' oeuvre to remain unsullied by any "warts and all" revelations that the film might inflict on him.

And then there's this age-old quandary: A supernatural messenger materializes before you, bearing a sealed envelope containing the the date and manner of your own demise. Would you open it and read it? This issue has been debated in <u>health forums</u> with various online surveys (e.g., <u>here</u> and <u>here</u>). Generally the majority of respondents say "no," and their reasons typically refer to the aversive emotional effects of this information, a desire to have some surprises in store for the future, and a feeling that this knowledge would compromise enjoyment of one's current circumstances. Of course, none of this has prevented the proliferation of "death clocks" (e.g., <u>here</u>, <u>here</u>, <u>here</u> and <u>here</u>). These purport to identify the date (if not the manner) of your death via a few simple risk-factors. Their pseudo-resolution of the riddle "when will I die" sometimes is celebrated with ironic declarations such as "today I died" or "Hey, I've been dead for years."

Are there things we choose to know that we would have been better off not knowing? All of us probably can think of specific instances, but are there *categories* of such things? Most of us prefer to find out the causes and reasons behind our experiences, good or bad. There's a large

psychological literature supporting the notion that making sense out of negative or traumatic events helps us to deal with and recover from them. But what about pleasant or uplifting events? Several years ago, Timothy Wilson and his colleagues (2005) reported experiments demonstrating what they called the "pleasure paradox," whereby making sense out of pleasurable experiences reduces the pleasure obtained from them.

One of Wilson et al.'s experiments had confederates giving a dollar coin with a card to people in a library. In one condition the card contained arbitrary statements such as "The Smile Society" and "We like to promote Random Acts of Kindness." In another condition the card had a question-answer explanation instead, so the arbitrary statement was preceded by a question such as "Who are we?" or "Why do we do this?" About 5 minutes after each participant received the card, an experimenter came along and asked them to complete a brief mood survey which included a self-rating of how positive or negative the participant's mood was at that moment. The mood scale was also given to people in the library who had not received a card at all (these were the "controls"). It turned out that those who received the nonexplanatory card were in a better mood than those with the explanatory card and the controls. Moreover, the explanatory card folks' moods didn't differ from the controls.

Why would a pleasurable experience be less pleasurable if it were explained? One possibility is that explaining the event makes it less surprising and thereby lessens the intensity of the emotion (whether positive or negative) that surprises induce. Wilson's team went one step further in their studies: They asked another sample of people to forecast which kind of card would make recipients feel happier. A large majority of respondents predicted that the explanatory card would be the more pleasurable of the two. Our commonsense psychology leads us astray in this case—Resolving the uncertainty about a positive event does not make it more pleasurable. It does the opposite.

If resolving uncertainty about positive events isn't always beneficial, what about events whose consequences could be positive or negative? Many uncertainties in everyday life have this characteristic, for example, awaiting the results of a test diagnosing whether you have a disease.

Genetic testing can raise the stakes about what we choose not to know to a very high level indeed. Perhaps the most agonizing choice of this kind faces descendents of Huntington's Disease sufferers. <u>Huntington's Disease</u> (HD) is a fatal neurodegenerative disorder with no known cure or prevention and very little in the way of palliative treatment. Symptoms begin with emotional disturbances and loss of higher intellective functions, followed by uncontrollable movements and ultimately inability to control movements at all.

The child of an HD parent has a 50% chance of inheriting the disease. If they do inherit HD, then each of their children enters this 50-50 lottery, whereas if they do not then their children are not at risk of HD. Now, here's what makes this lottery very debilitating indeed: HD usually manifests itself only when the carrier is well into adulthood (in their 30's or 40's). Until the 1980's all that a child of an HD parent could do was wait and see whether they passed their 40's with no symptoms. It impact of this uncertainty on young persons trying to plan their lives would be hard to overstate.

Then a genetic marker test became available for diagnosing HD. The test was relatively inexpensive, it could be taken at any age, and early surveys among those at risk suggested that uptake rates among them would be high. Arguments for HD descendants to take this test would seem unassailable. But in most countries where testing is available, the uptake rate has been low—5%-20%. Why?

Self-report studies have elicited reasons such as being "comfortable" with the uncertainties, concerns about the irreversibility of knowing the outcome, and fears associated with the consequences of an unfavorable outcome. A <u>1992</u> study identified an additional clue. Those

electing to take the test viewed both favorable *and* unfavorable outcomes as having less extreme consequences for them and their families than those refusing the test. That is, they rated the favorable outcomes less positively and the unfavorable outcomes less negatively. This finding agrees with the notion that, all else being equal, people are more willing to take risks when their outcomes are less variable (a notion that is substantiated by research).

Nonetheless, a much larger 2008 longitudinal prospective study of 1001 North Americans at risk of HD reported that reasons for not taking up the test still are poorly understood. It didn't arrive at strong conclusions either. For example, this study included measures of depression and tolerance of ambiguity, and found no detectable differences on either of these between those who already had undergone genetic testing and those who had not.

In recent times, reasons for and against taking the test have become complicated by issues such as insurability. The aforementioned 2008 study reported that for those taking the genetic test during the study, loss of insurability was their greatest concern and more than 40% of them paid for other medical services to conceal their genetic inheritance from insurers and/or employers. As a recent (2010) article in Lancet points out, there is little protection in either North America or the UK (or, I might add, in Australia) of HD carriers against discrimination by insurers. In the USA, the 2009 Genetic Information Nondiscrimination Act prohibits insurers from using genetic information to determine eligibility, premiums, or to compel individuals to undergo genetic tests. However, it does not extend to life insurance, disability insurance, or long-term care insurance.

So there is a double set of issues here: One regarding each person's decision to undergo genetic testing or not, and the second regarding who else should know about the results and what they can and cannot do with that knowledge. Genetic testing is a complex topic, one that will affect many more of us in the near future, and certainly worth more than one post.