

***Writing About Science:
Revisiting Blink¹***

*Someone who says “yes” too quickly is probably not as interesting
as someone who replies more slowly.*

Susan Orlean²

What are the special responsibilities of a science writer whose work is widely read and much admired? I have pondered this question for several years now, ever since I began reading the sometimes dazzling essays of Malcolm Gladwell. At first, I was deeply impressed by the way he wrote. He is a story-teller, a good one and is able to bring alive the abstract findings of large and important areas of social science. His essays in the *New Yorker* are entertaining, instructive, and more often than not, concern issues of consequence.

But as time went by, I began to worry. As a social scientist with a good deal of applied research experience, I thought often simplified issues that were far more complicated than he acknowledged. I worried about the studies that he didn't talk about and the qualifications they would place upon his claims. I was troubled by his tendency to overgeneralize, as I knew his claims did not apply as widely as he implied. And then most of his essays consisted of a series of anecdotes or case studies with little in the way of analysis. A writer doesn't create a very deep understanding of human behavior from a cascade of entertaining anecdotes.

The very considerable popularity of his most recent book, *Blink: The Power of Thinking without Thinking*, has quickened my concern. At the time of this writing (May 2005) *Blink* is ranked third on the New York Times list of nonfiction best sellers and fifth of

¹ I thank Penelope Stanton for the many contributions she has made to this essay.

² Wordstock Festival, Portland, OR April 24, 2005

books sold at Amazon.com. It has been on the Times best-seller list for the past 15 weeks.

In *Blink* Gladwell distinguishes between snap judgments and those made more deliberately. Snap judgments are made quickly, “in the blink of an eye,” with little or no effort to think things over before responding, say by considering alternatives or seeking out additional information. On the other hand, deliberate judgments are made more slowly after some thought is given to the issue-at-hand usually by analyzing the situation or the implications of newly obtained information.

More than once Gladwell suggests that rapidly-made-decisions are every bit as reliable as decisions made more cautiously. For example, in discussing the diagnosis of potential heart attack victims by emergency room physicians he boldly concludes that “you need to know very little to find the underlying signature of complex phenomena.” Or in discussing the initial impressions we form of other people when we meet them for the first time, he claims “...it is quite possible for people who have never met us and who have spent only twenty minutes thinking about us to come to a better understanding of who we are than people who have known us for years.” (p. 36) Not even that much time is required during a speed-dating session where he informs us we only need about six minutes of conversation. And students need even less, no more than two seconds, according to Gladwell, to judge how another group of students will rate a teacher’s effectiveness after being in the class for a full semester.

Although Gladwell is not a professional psychologist, he is quite familiar with a wide spectrum of the discipline. However, he doesn’t always get it right. As a case in point, consider his discussion of the study that he drew upon in describing our ability to extract very rapidly a feature of behavior or a situation based on a “thin slice” of behavior. In fact, the term is taken from the title of Nalini Ambady and Robert Rosenthal’s report, *Half a Minute: Predicting Teacher Evaluations from Thin Slices of Nonverbal Behavior and Physical Attractiveness*.³ Gladwell summarizes its findings as follows: “A person

³ *Journal of Personality and Social Psychology*, 654, No. 3, 1993, 431-441.

watching a silent two-second video clip of a teacher he or she has never met will reach conclusions about how good that teacher is that are very similar to those of a student who has sat in the class for an entire semester.”

Well, that’s not quite what Ambady and Rosenthal report. In fact, the “persons” who watched the video were actually a group of *female* undergraduates. Men were *excluded* from each of the three Ambady and Rosenthal studies on the basis of evidence that purports to show that women are better decoders of nonverbal behavior than men, a conclusion this author finds dubious at best, to say nothing of the limits an all-female sample imposes on the generality of its findings.

In addition, the “two-second video clip” consisted of three two-second exposures for a total of six-seconds of viewing. A minor point to be sure but a writer should get his facts straight. Again, the comparison in the more accurately called six-second video was not between two groups of students but rather between female undergraduates and the principal of the high school where the teachers shown on the video clip taught. Moreover, the female undergraduates did not actually rate the teacher’s effectiveness after viewing the video. Instead, they were asked to rate the teacher on fifteen non-verbal behaviors, such as frown, smile, empathy, enthusiasm, etc.

Furthermore the measure that was compared with the principal’s judgment (the criterion measure) was a *composite* of the *average* female undergraduate ratings of the fifteen nonverbal behaviors. Thus, the female students never actually rated the teacher’s *overall* teaching effectiveness, although Gladwell reports the findings as if they did, e.g. “how good that teacher is.” In short, the findings were based on *aggregate* data derived from a sizable number of judgments about a set of non-verbal behaviors by a total of forty-eight female undergraduate raters.

Gladwell tells us nothing about the predictive value of any of the nonverbal dimensions or how the women varied in their overall appraisal of the teacher, whether, for example some were better than others in this respect or, indeed, whether some might have

preferred to wait until they had further information. We know that individuals vary widely in their ability to accurately judge other individuals and in their disposition to act on the basis of their immediate reactions. Gladwell says nothing about these important aspects of either the Ambady and Rosenthal study or any of the other investigations that he draws upon in *Blink*

There is also the matter of what constitutes teaching effectiveness. The female undergraduates were asked to judge a set of teacher nonverbal behaviors. In Study 1 where three 30-second video clips were shown, the end-of-semester student ratings were used. In Study 2 (three 30-second video clips) and Study 3 (three 5-second and three 2-second video clips) the criterion measure was the principal's rating of the teacher's effectiveness. Is that what we mean by teaching effectiveness, namely ratings given by students and administrators?

It is widely recognized that judging teaching effectiveness is fraught with difficulties. At the very least multiple criteria should be used, including student performance in the course while it is being taught, as well as over the long term after they have had an opportunity to absorb fully the course materials and explore its subject matter in other areas. The courses you most hated sometimes become those you most value. The teachers that bored you to death sometimes become your most appreciated.

In a word, I believe Gladwell's cursory treatment of Ambady and Rosenthal's study is not accurate. The reader is presented with a less than complete description of their findings and is scarcely in a position to think critically about his presentation without tracking down the original study in the journal where it was published, a task that no reader can be expected to undertake. Is it not Gladwell's responsibility as a science writer to provide a full and accurate account of the study including whatever information the reader might require to consider alternative accounts of the findings or, at least, a set of questions that one might normally raise in thinking about its surprising results? As it is we simply given a small "slice" of the study without critical analysis, one that is neatly

consistent with Gladwell's argument. And so it is with most of the other studies that he draws upon in *Blink*.

Surely all of us who have been students recognize the folly of acting upon such a "thin slice" of classroom experience. Recently I enrolled in a non-fiction writing class taught by a well-known essayist, a writer who had long ago introduced me to the craft of personal essay writing. The instructor spent almost all of the first class by reading from one of his recent essays. I was appalled. He made no opening statement, presented no plan of study, did not lay out the goals of the course, nothing like that. He read another long essay the next day, but by then I was getting used to his routine. He seemed strangely distant, generally unsmiling, offered very little in the way of chit-chat or friendly banter.

My first impression of his teaching effectiveness was dismal. I thought about dropping the class. But I had traveled some distance from my home to enroll in the class. So I decided to stick it out, in spite of my initial impression. I'm glad I hung in there. The instructor warmed up as the days went by, so that at the end of the two week session he was no longer the dour, humorless person he was at the outset but the delightful, jesting, free associating one he sounds like on the page. He liked to ramble. At the beginning of the last class (nothing was prepared for that either!) I asked him what he meant by "research?" He took off on a flight that lasted well over an hour, roaming all over the place and back again. It was fun. All of us in the class enjoyed it. So did he. So much for relying on thin slices of teaching effectiveness.

The major problem with Gladwell's catalogue of the triumphs of snap judgments is the limited treatment he gives to their trustworthiness. Surely a reader must wonder when to trust a snap judgment and when not to. Gladwell gives this question surprisingly little thought. He admits it is important to understand those situations where snap judgments can lead us astray. But he makes no attempt to examine at any length this issue or how one might go about developing guidelines for deciding when to trust them and when to suspend judgment until further information can be obtained.

Not surprisingly he treats this central issue by presenting a stream of colorful examples. He points to the so-called Warren Harding Effect, the danger of coming to a conclusion about a person on the basis of their appearance. “Many people who looked at Warren Harding saw how extraordinarily handsome and distinguished-looking he was and jumped to the immediate—and entirely unwarranted—conclusion that he was a man of courage and intelligence and integrity.” After urging caution in relying too much on a person’s appearance, he does not return to the potential pitfalls of snap judgments until the last chapter where he treats at some length the consequences of the snap judgments police officers made when they encountered Amadou Diallo one night on a street in the Bronx.

There is really nothing inherently wrong in describing particular instances to support a more general point of view. Everyone recognizes they have sometimes erred in acting too quickly on the basis of a hastily arrived at decision. What distinguishes those decisions from those that are more reliable? *Blink* would have been a better book if Gladwell had considered this issue with more depth and analytic detail than he did. Such a presentation might have helped the reader to determine when they can have confidence in their snap judgments and when they should be viewed with some degree of caution. Gladwell would have no difficulty making comprehensible in a thoroughly engaging fashion recent research that would contribute to their understanding. The readers of *Blink* are at a disadvantage because he did not.

To be sure, Gladwell does point out that snap judgments are often based on prior experience and that their accuracy can be improved with training. Indeed, one of the goals he stated early in *Blink* was to convince readers that snap judgments can be “educated and controlled.” Still he speaks of John Gottman’s research on predicting marital happiness after observing an hour of a couples interaction or a decision-making algorithm for predicting cardiac arrest as if they were examples snap judgments based on thin slices of evidence. In fact, both were developed after a long and complicated testing

procedures that involved sifting through a good deal of data, review of other studies, as well as many hours of personal experience. This is hardly a very speedy process. In fact, it is hard to imagine many decisions that occur without prior experience or knowledge, even those that occur in the “blink of an eye.” All of the examples he provides from the judgments made about the Kuoros statue to the Warren Harding effect or the first impressions we form of other people depend on prior knowledge even if we are not aware of the information at the time we respond. And when the judgment process fails, as it often does, it is usually because we lack the relevant information or have been poorly trained as in the case of the rookie cops who mistook a wallet for a gun. The surest way to improve the accuracy of our “snap judgments” is to take the time to gather the relevant information or obtain the necessary training to guide us the next time we are faced with a similar situation.

Gladwell insists there are many situations where “haste does not make waste, when our snap judgments and first impressions offer a much better means of making sense of the world.⁴” Is there not more convincing evidence about this important matter other than catalogue of tales, well told though they are? For example, one might compare a decision to purchase a car based on a buyer’s initial reaction with the one they make after thinking about it for a day or two while they gathered some information. Was the reaction they arrived at initially a reliable predictor of how they felt after waiting a bit? And did it vary as a function of the amount of information they were able to obtain? We all know from experience that we sometimes regret purchasing a product on the spur of the moment. These types of experiences remind us of the limits of precipitous judgments and how in the light of subsequent events or information they can turn out to have been in error.

What are readers going to think after reading Gladwell’s case for the power of snap judgments? Will they be lead to abandon the time consuming process of reasoning, of putting their decision on hold for a moment while they gather a little information? Or

⁴ Interview on Malcolm Gladwell’s website <http://www.gladwell.com/blink>

will they conclude they might as well decide on the basis of their initial reaction? Why bother to carefully consider a decision when Gladwell informs us that “knowing less is knowing more?”

The real danger that I see in *Blink: The Power of Thinking Without Thinking* is Gladwell’s apparent argument against the importance of serious inquiry in our daily decision making process. At least, that is conclusion I believe most readers come to after reading the book. Urging greater reliance on “fast and frugal” decision making has the potential to undermine the value of gathering information, weighing the consequences, doing a little studying and thinking before reaching a decision. None of this is necessary when you believe “decisions made very quickly can be every bit as good as decisions made cautiously and deliberately.” It is a matter of emphasis and the emphasis in *Blink* is clearly on the side of deciding rapidly on the basis of how you feel at the moment.

The continuing widespread popularity of *Blink* makes me all the more concerned about its impact. I believe its readers deserve a more balanced view, a more critical approach to the important domain it highlights. One narrative after another about decisions made in a flash is not very satisfying. When research is mentioned, it is assumed to be true without qualification as Gladwell moves on to another story. This reader would wish for larger view, a testable theory or hypothesis if you will, even if it can only be sketched at this time, to make sense of the large assortment of such tales, many of them quite interesting to be sure, although less and less so as yet another one unfolds.

It isn’t necessary to write a technical article to present recent scientific findings in a entertaining and accurate way to the general public. What is most needed is a presentation that is at the same time accurate, analytic and readable. Gladwell can do this as well as any other science writer that I know. He has done so brilliantly in some of his essays in the *New Yorker*, but not in *Blink*.

The research we have reviewed points the way to the kind of research program that would shed light on the advantages and disadvantages of rapid cognition. When the

accuracy of snap judgments were compared with a more cautious, reasoned approach, college students were led astray by trusting to their initial, gut reactions on two out of the three situations we considered. Inaccurate choices were made when they were fully informed about the probability of either of two decision outcomes and when they were asked to estimate fairly objective matters of fact.

The costs of relying too much on rapid decision making should be clear. As Gladwell points out in the describing the Daillo case, snap judgments can sometimes be disastrous, as well as irreversible--all the more reason to be extremely cautious in overemphasizing their benefits. Early in the book (p. 15) Gladwell asks: "So, when should we trust our instincts, and when should we be wary of them? Answering that question is the second task of *Blink*." It is one that Gladwell never does. At least I am at a loss to even begin to answer the question either in the light of anything he says or on the basis of the current research on the matter. We have just begun to explore the conditions under which intuitive judgments can be trusted. Thus it is surely premature at this time to make broad generalizations about their superiority to a more deliberative reasoning process. Knowing when to trust snap judgments and when not to is not a matter that can be decided in the blink of an eye.