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## **ARTICLE** **DECISION MAKING**

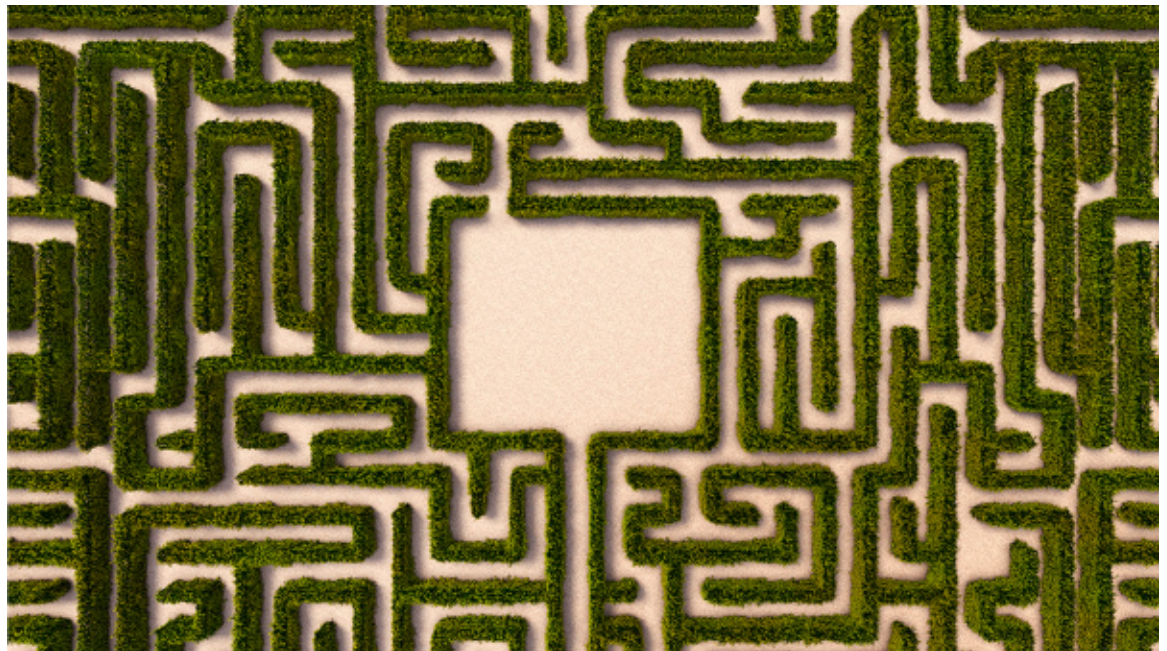
We Use Less  
Information to Make  
Decisions Than We  
Think

*by Ed O'Brien*

DECISION MAKING

# We Use Less Information to Make Decisions Than We Think

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We live in an age of unprecedented access to information. To buy the right phone, find the best tacos, or hire the perfect employee, just hop online and do as much research as you need before choosing. Having so much information at our fingertips has made us more knowledgeable than ever before.

Or has it? The information age certainly has the potential to improve our understanding. But new evidence suggests that access to information may work better in theory than in practice. People *think*

they will rationally assess all available information before forming conclusions, but then, with so much information at their disposal, they actually form conclusions nearly right away. Minds are made up long before we make it through the evidence.

### **Quicker To Judge Than We Think**

In seven experiments, [recently published](#) in the *Proceedings of the National Academy of Sciences*, my co-author Nadav Klein and I tested the hypothesis that people overestimate how much information they will assess before making up their minds. In one experiment, 214 participants (a mix of University of Chicago students and passersby around the city) completed a taste test. First, they drank one 0.5-ounce sample cup of an unmarked juice. Second, we divided participants into *predictor* or *experiencer* conditions. Predictors were asked to estimate how many additional cups they would need to drink before making up their minds about whether they liked or disliked the juice. We compared these estimates with the actual number consumed by experiencers, who drank as many as they needed to make up their minds. Predictors believed they would wait to drink more than double the number of cups (three or four on average), compared to the actual number consumed by experiencers (one or two on average), before deciding whether they liked or disliked the juice. Participants thought they would wait to form conclusions, but in reality, their minds were made up at the first few sips.

We replicated these findings in an experiment involving artwork. Two hundred and seven online participants evaluated sample paintings, all depicting the same general style of art. Again, we divided participants into predictors or experiencers. Predictors first saw one painting (selected at random from a pool of 40), and then were asked to estimate how many additional paintings (up to 40) they would need to see before making up their minds about whether they liked or disliked that style. Experiencers actually viewed a random selection of these painting one by one, and stopped when they made up their minds. Predictors believed they would wait to view *quadruple* the number of paintings (16 or 17 on average) compared to the actual number viewed by experiencers (three or four on average) before deciding. We know that this speed truly reflected the point when experiencers made up their minds, rather than general impatience to end the study, because they were informed beforehand that they would have to stick around to view all paintings regardless of their response. Their quick stopping point was not simply a sneaky exit strategy.

In a third experiment, we moved to social judgments. Four hundred online participants read about a variety of social situations, each involving assessing piecemeal evidence. For example, we asked them to consider: suppose you are a manager assessing the task-to-task performance of a new employee. How many good performances would convince you that you have hired the right person? How many bad performances would convince you to search for someone new? In either case, you probably think you will wait longer to cast judgment compared to how long it actually takes you to decide. Participants in our experiment thought they would wait to see many more good actions before deeming others good actors, and likewise thought they would wait to see many more bad actions before condemning others as bad actors, than they actually waited to observe in real time.

Whether tracking the outcomes of an employee, the grades of a student, or the behavior of a child, people's desire to reward or to punish came through much quicker than they planned.

These experiments all highlight the same psychological trap. People view the mind as a rational arbiter, assuming that they and others will withhold judgment until they finish flipping through all the evidence. But the mind isn't just a passive information processor; it's also emotional. In reality, once people begin to experience that evidence in real time, they will inevitably *react to it* as they go along. We won't need to see later information if we already love or hate the very first piece.

One consequence of misunderstanding how fast we judge is that it can be costly. In one experiment, we tested whether people overestimate the value of long-term product trials. We designed an email service called "The Daily Cute," in which users receive an email each morning containing a funny video and links to share on social media. We recruited 150 online participants to complete a 5-day trial. At the start of the week, they predicted that each day of the trial would be highly valuable for figuring out whether they liked or disliked the service. They also stated that they would be willing to pay more and more money for longer and longer trials. However, as their trial unfolded and we measured actual ratings of value after each day, a different picture emerged. By about the third day (on average), users had seen enough to form their judgment. This suggests that for experiences that don't actually require much time or effort to evaluate, our intuition to acquire lots of information might backfire, because we may pay up for something we'll never use.

If we are quicker to judge than we realize, might we also underestimate the speed at which others judge us? We conducted a final experiment to test this in the context of job applications. First, 124 Chicago Booth MBA students completed a hypothetical job application, which involved writing multiple essays about their past management experiences. Second, 124 professional hiring managers were recruited to evaluate each application, which involved reading through each applicant's essays one-by-one and stopping whenever they developed a good sense of this person as a manager. Critically, the MBA students were instructed to write exactly as many essays as they believed the hiring managers would read before hitting this point - write too few *or* too many, and you lose the job. The MBA students failed. They wrote double the number of essays (about four on average) that hiring managers cared to read (about two on average). Evaluators may make up their minds faster than applicants realize, rendering one's obsessive efforts to impress unnoticed, or as in this case, actively harmful.

### **A Little Planning Goes A Long Way**

How much should you sample a product before purchasing? How long should you wait before giving up on an employee? How hard should you work on your résumé, before others stop noticing? It's difficult to know how much information will end up impacting your own or your audience's impressions. But a few simple strategies can make it easier.

First, diagnose the problem. Some experiences don't change much over time. Your tenth sip of a juice will probably taste like the first. In these cases, you have a prediction problem - fight your intuition

to acquire a lot of information, because you won't need it. Other experiences are more complex. Your tenth interaction with a new employee might be nothing like the ones before. In these cases, you have an experience problem — fight your emotional reaction to stop short, because things might change. It's not always obvious which experiences will end up changing over time, but doing some work beforehand to make an educated guess can pay off.

Second, consider others' perspectives. It's compelling to assume that others will notice each and every perfectly crafted line on our applications, just as we see it ourselves. They probably won't. Remember how quickly an audience will size you up. When looking to impress, dedicate most of your time and energy into fine-tuning *some* information, rather than worrying and working on every little piece. Evaluators likely won't fully process each page of your 20-page résumé — but will form an impression right at page one.

Third, keep score. You've spent your life sampling new information. When have you impatiently drawn premature conclusions? When have you amassed so much information that it simply built dust? The more that you can draw on data from your own life, the better you'll be in knowing how much to acquire or to share the next time. Chances are that you make up your mind—and others make up their minds about you—quicker than you care to admit. Knowing this fact will allow you to paint more realistic expectations moving forward — and, hopefully, help you truly take advantage of today's information age.

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