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Managing Yourself

Don’t Make Important Decisions Late in the Day

by Francesca Gino

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You arrive at the office and, as usual, face a long list of tasks to accomplish: getting back to your colleagues about joint projects, sending those time-sensitive e-mails, finishing up that important performance review, making progress on one project, deciding on next steps for another. What’s the best way to tackle your to-do list?

You may have devised a personal strategy to help you order your various tasks. But if you are like most people, you may not give too much thought about *when* is the best time to tackle each of them. You should. Recent research suggests that you need to think more strategically about how the time of day affects your decisions and performance.

Over the course of a regular day, everyone's mental resources get taxed, research has consistently shown. Thus, as the day wears on, whether you like it or not, you become increasingly fatigued and consequently more likely to underperform on work tasks. Cognitive fatigue in a very common condition that results from sustained engagement that taxes your mental resources. This seems obvious, right? Yet the vast majority of people often overlook cognitive fatigue, despite the fact that it influences their choices and behaviors in profound ways.

Research has found that persistent cognitive fatigue results in burnout at work, lower motivation, increased distractibility, and poor information processing. It even lowers the quality of everyone's judgment and decisions, including those of experts.

For instance, scientists Shai Danziger, Jonathan Levav, and Liora Avnaim-Pesso analyzed 1,112 bench rulings in a parole court and plotted the proportion of favorable rulings over the course of the day. They found that judges were more likely to deny a prisoner's request and accept the status quo outcome as they advanced through the sequence of cases on a given day. More specifically, their proportion of favorable rulings started out high, at about 65% at the start of the day, but dropped off rapidly.

By the time a meal break came around, the proportion of favorable rulings was close to zero. When court was back in session, the pattern repeated itself, starting high and ending with almost zero favorable rulings. Interestingly, neither the judges nor the panelists who advised them were aware that mental energy is essential to careful deliberation and the later in the day, the lower such energy is, unless a lunch break allows judges to recharge.

Evidence for the same type of cognitive fatigue has been found in other contexts, including consumers choosing among various products and physicians prescribing antibiotics. Primary care doctors often prescribe unnecessary antibiotics for acute respiratory infections (ARI), researchers have found. As the physicians appeared to "wear down" during their morning and afternoon clinic sessions, the rates at which they prescribed antibiotics increased. About 5% more patients receive antibiotics at the end of a clinic session as compared to the beginning, this research shows. Thus, while

clinicians make many patient care decisions each day, the cumulative demand of these decisions leads to more inappropriate choices later in the day.

Considered together, this evidence points to a clear conclusion: The overall demand of multiple decisions on people's cognitive resources throughout the day erodes their ability to resist making easier and potentially inappropriate or bad decisions.

Similarly, time of day can affect performance. Hans Henrik Sievertsen of the Danish National Centre for Social Research, Marco Piovesan of the University of Copenhagen, and I found that time of day affects students' performance in schools. Using test data on the full population of 8- to 15-year-old children in Danish public schools from school years 2009/10 and 2012/13 — a sample of over two million data points — we measured the effect of both time of day and breaks on students' performance on standardized tests. Consistent with our predictions, cognitive fatigue led students to perform worse on the tests, and breaks recharged their energy.

Specifically, our analyses led to three main findings:

1. The later in the day the time of the test was, the lower students' performance on the test
2. Breaks caused a significant improvement in performance
3. The effect of time of day and of breaks was not homogeneous — that is, low-performing students were more affected by breaks (and also by the time of the day when the test was taken) than high-performing students

Importantly, a 20- to 30-minute break causes an improvement in test scores that is larger than an hour's deterioration. So, if there were a break after every hour, test scores would actually improve over the course of the day. But if breaks occur only every other hour like they do in the Danish system, the total effect is negative.

As this research on experts and students suggests, time of day and breaks have a meaningful influence on your decisions, behavior, and performance. So as you think through your to-do list, you may want

to carefully consider the role of these external factors. Make sure you tackle the tasks that require a great deal of attention and mental energy earlier in the day and take breaks throughout the day.

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