It all comes down to fairness

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Eat chocolate. Win money. Be treated fairly. To the brain, it all means the same thing: Reward.

California researchers tested the simple idea of "what's fair" by playing the well-known psychological Ultimatum Game on volunteer university students. Their brain scans suggest that humans are hardwired to the ultimate fairness test, the Golden Rule.

The game plays on basic human emotions -- the desire to win, to be treated fairly, or to take revenge -- even if it hurts you.

It's not limited, though, to the lab. It plays out in real life, on the job -- with far-reaching consequences for workers and bosses alike.

"Receiving a fair offer activates the same brain circuitry as when we eat craved food, win money or see a beautiful face," said Golnaz Tabibnia, a postdoctoral student at the University of California at Los Angeles, lead author of the study, published in the April issue of Psychological Science.

To understand the Ultimatum Game, think of a boss with a fixed budget for raises -- including his/her own. Except, imagine that the boss cannot get a raise unless his workers agree on the dollar amount he offers for their raises.

Researchers gave one student a fixed amount of money -- information available to his test partner. The first student was then obliged to offer his partner some portion of the cash.

Some students made a "fair" offer, such as $5 from the total $10 they'd been given. Others were given $23 and they still offered only $5 of it.

Key to the game: In either case, the amount of money offered was always the same -- $5. So the issue came down to fairness.

Results showed that almost half the time, students accepted offers that were inequitable -- say only 20 or 30 per cent of the total cash available. However, their brains registered no activity in the reward areas, the ventral striatum and ventromedial prefrontal cortex.

"The brain's reward regions were more active when people were given a $5 offer out of $10 than when they received a $5 offer out of $23," said UCLA professor Matthew
Lieberman, a co-author of the study. "We call this finding the 'sunny side of fairness' because it shows the rewarding experience of being treated fairly."

Interestingly, a $5 offer from a $23 pot activated a quite different region of the brain, the insula, which responds to disgust.

And -- of interest to managers and economists like -- irrational human behaviour can rule in those cases. Even though $5, a bad deal, was better than the zero they'd get by rejecting an offer, students still turned it down flat.

Why? Because that means no one gets any money -- thus the Ultimatum -- a way for one student to punish a stingy partner.

Despite the fact students can't see each other, grudges and residual anger can run so high in this game that researchers permitted them to participate only once.

For the pragmatic types among them -- those who took bad offers -- still another part of the brain lit up.

"We're showing what happens in the brain when people swallow their pride," said Ms. Tabibnia. "The region of the brain most associated with self-control gets activated," she said, "and the disgust-related region shows less of a response."

In followup research, the UCLA team worked with a team from Cambridge University, publishing their results in June in Science. They administered drinks -- either a placebo or a drink that caused serotonin levels to drop. Inadequate levels of serotonin, a neurotransmitter, can cause depression or reduce a person's ability to moderate anger or impulsiveness.

Students with chemically lowered serotonin levels rejected unfair offers at a higher rate than the control group.

"The findings highlight why some of us may become combative or aggressive when we have not eaten," according to UCLA Magazine.

High-carb, low-protein foods, such as popular snack foods (chocolate and potato chips), make it especially easy for the body to manufacture and release brain serotonin.

This may explain the popularity of starch- and sugar-rich breakfast cereals. They are high in the amino acid tryptophan, which the body uses to make brain serotonin. Tryptophan is also found in meats, fish, nuts, fruits and dairy products.

Increasingly, workers and bosses, labour unions, medical workers and even Health Canada are specifically using the word "fair" as a prescription for stress, lawsuits and illness.

Health Canada's website (hc-sc.gc.ca /ewh-semt/pubs/occup-travail/fairness-equite/) features a frank report, Fairness in Families, Schools and Workplaces: Implications for Healthy Relationships in these Environments.
It is partly based on a survey using Health Canada's Workplace Health System questionnaire.

The report concludes: "Feelings associated with the unfairness of high-demand, low-control, high-effort, low-reward conditions include: depression (misery), anger, demoralization and anxiety. Feelings associated with fairness of high-control, high-reward conditions include satisfaction, calmness, enthusiasm and happiness."

"Even when such negative mood states do not produce immune system deficiencies, they are important in themselves because they are associated with poor morale, absenteeism and lower productivity."

The Health Canada study pulls no punches. Speaking to millions of Canadian bosses at every level, it warns: "A Canadian legal case directly involving the unfairness or unreasonableness of stress due to high-demand, low-control or high-effort, low-reward conditions is virtually waiting to happen, and employers might well ask themselves: Do we want to be the first to face the wrong end of a stress claim based on unfairness?"

They don't have far to look for an example.

It is no coincidence that the Canadian whistleblowers' website is called FAIR -- Federal Accountability Initiative for Reform (fairwhistleblower.ca).

It was founded by Joanna Gualtieri, who blew the whistle on millions of dollars wasted abroad by Foreign Affairs and International Trade employees. In May, David Hutton, a former executive, now a management consultant and author, was appointed executive director after working for two years in the volunteer-run organization.

After 10 years and 10,579 questions, Canada's Department of Justice continues to use its bottomless pocket of taxpayers' money to keep Ms. Gualtieri from bringing her case to trial through a seemingly endless discovery process.

Recently, an Ontario Superior Court called the Department of Justice lawyers on it, ruling that the many hours of discovery questions (and many more spent preparing) were an abuse of the discovery process and imposed heavy costs in time, money and Ms. Gualtieri's health. Exhausted, she twice collapsed during or after proceedings. The new ruling allows only eight more hours of questioning.

Ms. Gualtieri sued the federal government and her eight bosses -- Jim Judd, Gordon Smith, Donald Campbell, Lucie Edwards, Ian Dawson, Frank Townson, Ken Pearson and Geoff Cliffe-Phillips. Mr. Smith and Mr. Campbell were deputy ministers and Mr. Judd was assistant deputy minister and is current director of CSIS.

She sued them as individuals for $5 million in general damages and $1 million in punitive damages -- to hold them, rather than taxpayers, personally accountable.

Ms. Gualtieri sued them for ignoring or repressing her reports, changing her duties, isolating her and ultimately driving her, harassed and in poor health, from her job.

"Although embarrassing to the defence," says FAIR's Mr. Hutton, the recent ruling to
limit the Justice Department's questioning "does not significantly change Ms. Gualtieri's situation: Further pretrial motions are likely, and no date has yet been set for a trial."

It hardly seems fair.

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