Educated Decisions

School and Classroom Decisions: Cognitive and Behavioral Science Applied to Real World Scenarios

Teachers make .7 decisions every minute during classroom instruction, and studying the cognition of decision making can influence classroom teachers alone who make on average up to 1500 important professional decisions daily that impact their students. As a principal, I know that I make dozens of decisions per day and I have benefited from the study of behavioral economic research on decision making. Policy makers, educational leaders and teachers can all benefit from the application of behavioral economic research findings with regard to their personal professional practice.This workshop will explore real world scenarios in order to explain decision making through three key educational domains: 1. Individual classrooms, 2. Schoolwide, and 3. Educational Policy.

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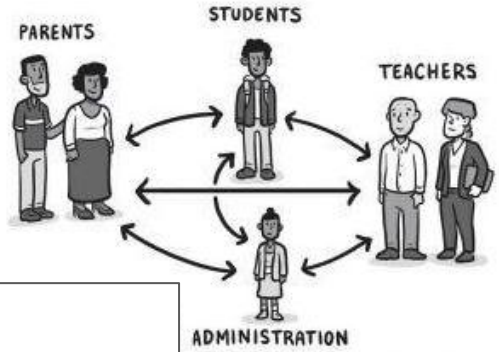
Objectives

1. We can improve the ability to identify and understand errors in judgement and choice by providing a richer and more precise language to discuss them.
2. We can apply the new lessons of behavioral economics, industrial psychology, economics and psychology to decision making in our classrooms, schools, and organizations.

   (This is being done in other fields/organizations and educators are committed to discovering best practices.)



What do we know about decisions?

What do we know about our students' decisions?

How many decisions does a teacher make a day?

How do teachers make decisions?

How does our organization make decisions?

What types of decisions do teachers, students, and organizations make?

Who makes more decisions daily a teacher, principal, an investment banker, or a CEO?

What are the most important types of decisions that teachers make?

How do school administrators make decisions?

How do BOE's make decisions?

There are more questions than answers!

Behaviors=Decisions

- How do you feel?
- How do you want to feel?

LEFT

left

right

RIGHT

RIGHT

left

LEFT

right

upper

lower

LOWER

upper

UPPER

lower

LOWER

upper

Attention Test

Scenario- Read aloud

SHY **WITHDRAWN** **HELPFUL**

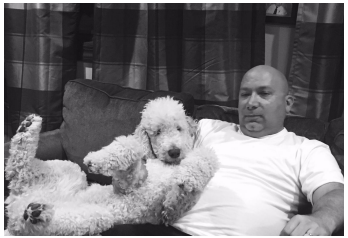
LITTLE INTEREST IN PEOPLE OR REALITY

“A meek and tidy soul” **HE HAS A NEED FOR ORDER** **STRUCTURED AND A NEED FOR ORDER**

“To be a good diagnostician, a physician needs to acquire a large set of labels for diseases, each of which binds an idea of the illness and its symptoms, possible antecedents and causes, possible developments and consequences, and possible interventions to cure or mitigate the illness.”

“Systematic errors are known as biases , and they recur predictably in particular circumstances.”

-Daniel Kahneman, *Thinking Fast and Slow*, p. 25

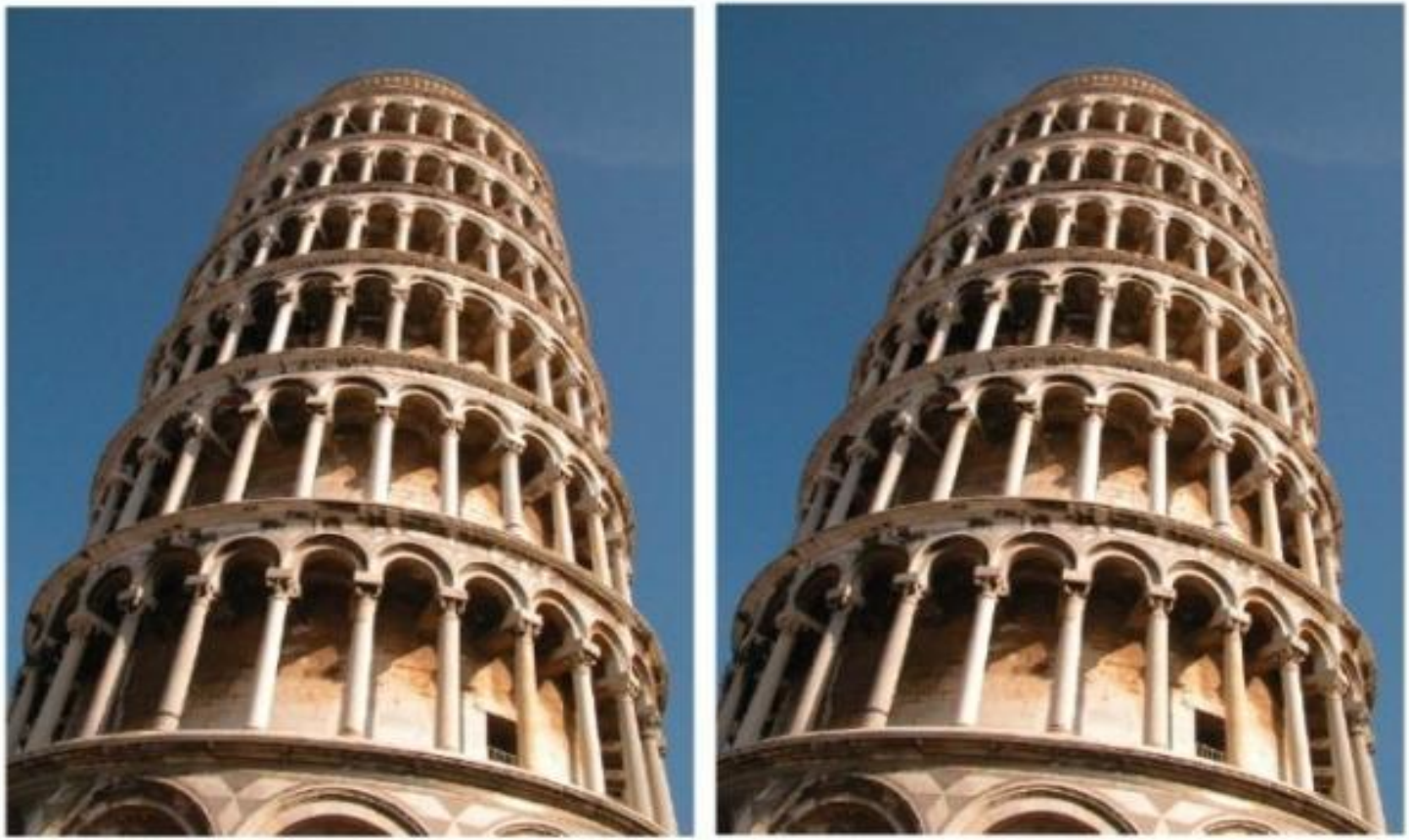


What the heck is going on?

Scenario Experiment: You are who you presently are with all of your previous experiences, but suddenly _____ School District do not exist as they have merged with surrounding districts and you have been excessed. It is now February and you haven't worked in a school for almost six months. Looking for work you apply to a NYC firm that has advertised extensively looking for content teachers to assist with their new online products. You visit the main office in the DUMBO section of Brooklyn surrounded by tech start ups and with high end coffee shops all around. You are greeted at the front desk by a receptionist and by chance the CEO, a twenty six year old who introduces himself, and you notice he looks older than many of the other employees. Music that you have never heard before is playing. Bicycles hang from the ceiling above many of the desks in cubicles and the office has an open concept design.

How might you feel? What might you feel about your potential coworkers? How do you think your potential co-workers might view you? What are the subtle cues that lead you to this analysis? How might these feelings impact your job performance?

Common Answers: As an older person with no computer savvy….Coworkers might devalue my contributions….Patronizingly low expectations by others…..Of little interest....Worry about others perceptions…..Fear of associating with me as might rub off on them….Worry about doing a good job….Walking on eggshells….



Traditional Economic Theory, Rational Thinking, and the Market Mentality

The Breakdown of Traditional Economic Theory,Rational Thinking and the Market Mentality

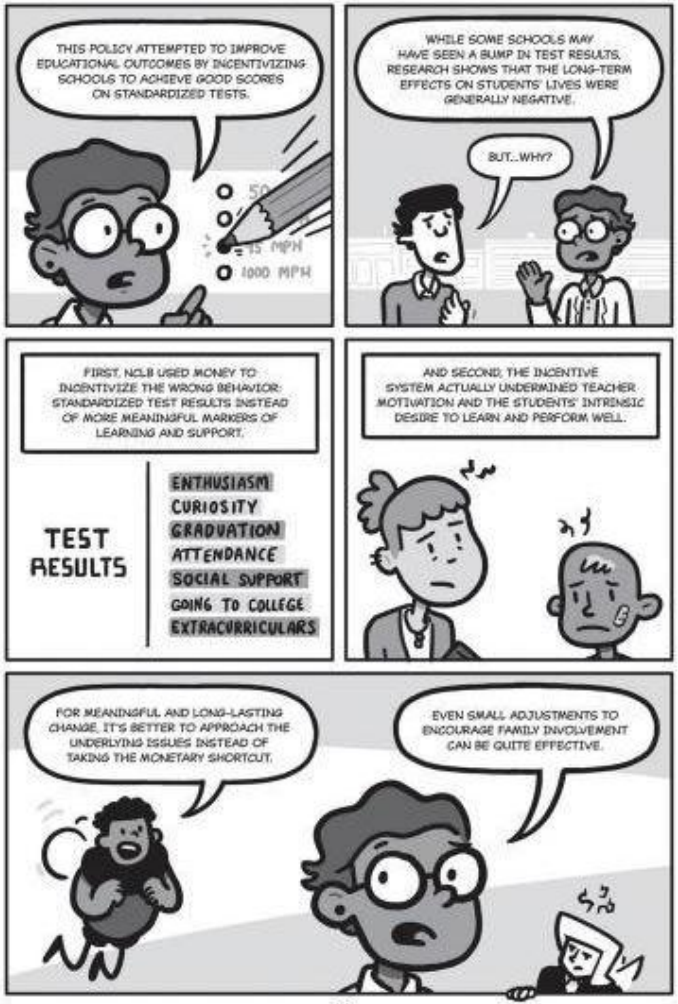
My shirt Dude

The Breakdown of Economic Theory, Rational Thinking and the Market Mentality

Daycare Outcomes

Rational Thinking and the Market Mentality

NCLB and APPR



Assumptions: Rational vs Irrational Thinking

1. People use deliberate, logical, rational thinking.
   a. Examples: Cost Benefit Analysis, Return on Investment, Scientific Method
2. People are faced with more decisions and information than we can consciously process.
3. People think in an automatic fashion, influenced by an Individual's Conditioning/Training, Environmental Conditions, and Social Influence.
   a. Heuristic- a "rule of thumb"
4. People have cognitive biases, emotional preferences, and are built to conserve energy and this guides their thinking.

Cognitive Load, Mental Energy, and Ego Depletion Joe Pesci Example Definitions

Fast vs. Slow Processing

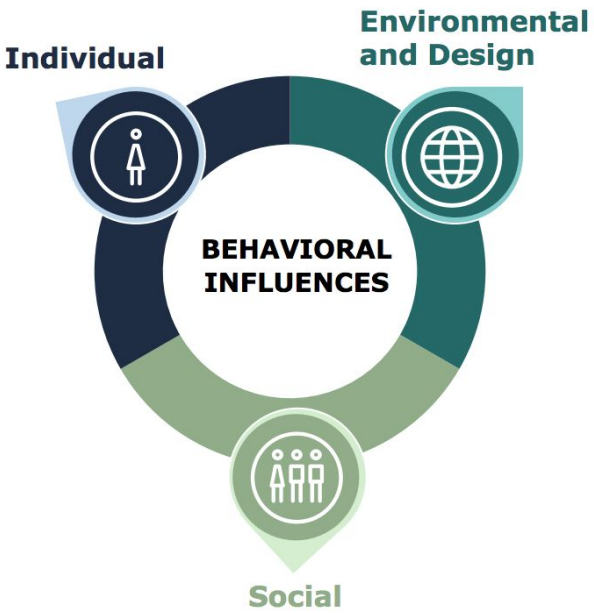
Heuristics and Biases Bias Codex

Self-image and Identity Identity Threat and Identity Contingencies

Intention and Commitment
Rewards and Penalties

Time Distortion

INDIVIDUAL



Choice Architecture

Feedback and Reminders

Framing and Priming Salience

Simplification and Timing

ENVIRONMENTAL

Messenger Effects
Reciprocity Equity
Social Norms and Timing

SOCIAL

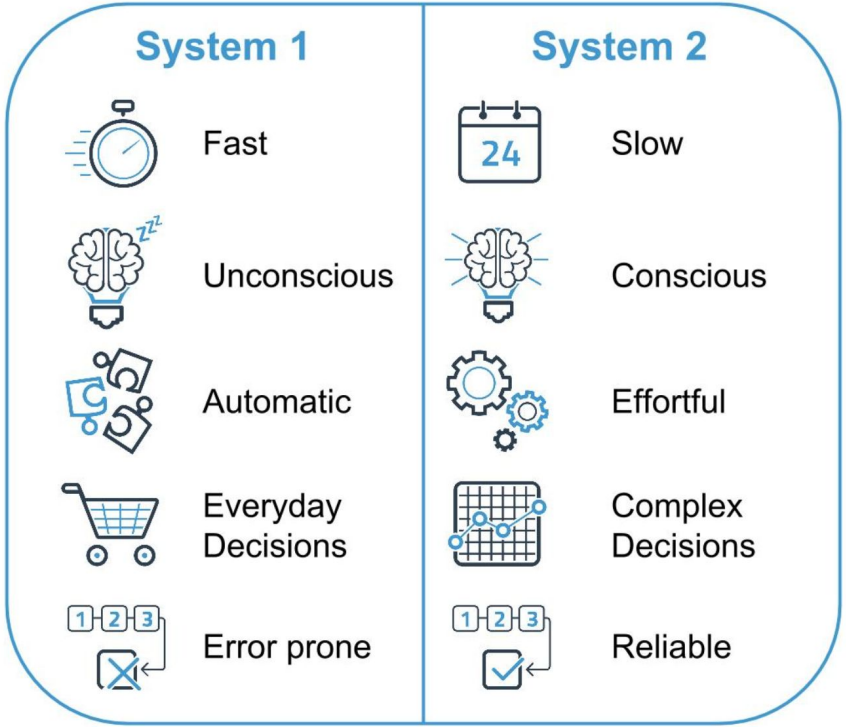
Image comes from the IRS!

System 1 and System 2

System 1 FAST- operates automatically and quickly, with little or no effort and no sense of voluntary control.

System 2 SLOW- allocates attention to the effortful mental activities that demand it, including complex computations.

(It takes effort to overcome habitual responses or ‘executive control’ and carry out concentration.)



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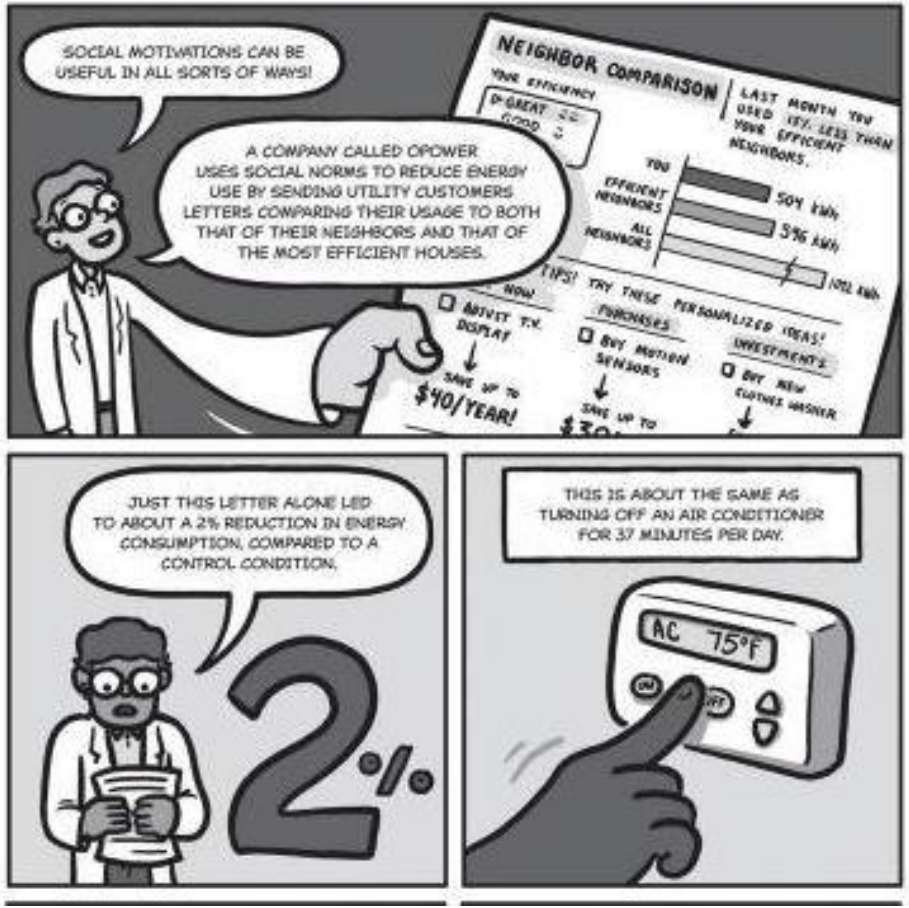
Applying Behavioral Insights (Transference)

<u>How can electric bills teach us how to increase our attendance rates?</u>

Applying Behavioral Insights (Transference)



Intervention

- Social Norms
- Salience
- Feedback

How might this shape our report cards and progress reports?

Could we report average student or parent logins to the electronic portal?

Applying Behavioral Insights (Transference)

What can employees participation in 401ks teach us about our students and the PSAT?

- Defaults
- Choice Architecture
  - Make the best choice the easiest choice
  - Example of PSAT @ NBHS

Applying Behavioral Insights (Transference)

Healthier cafeteria lunch choices

Honors for all

Default for refusing NYS testing? Make a complex opt-out form.

No time fo breakfast?

- Cafeteria programs that serve breakfast often do so before the school day begins, earlier than buses and carpools arrive.
- Stigma if school breakfast served in the cafeteria is perceived as being only for low-income students.
- Breakfast to all students as part of the regular school day – known as Breakfast After the Bell – which has been shown to increase participation rates
    - Mobile carts

Applying Behavioral Insights (Transference)

How can selling one’s used car explain some student's inability to judge their own work?

What loving your IKEA furniture can teach us about the improving the teachers’ lessons via the observation process?

Bias and the Bias Codex

Endowment effect

Ikea effect

Applying Behavioral Insights (Transference)

What can two models of sales commissions for selling televisions teach us about calculating a student's grades in a course?

Model 1 Prepaid

Model 2 Paid after sale

Loss aversion theory

> Implies that one who loses $100 will lose more satisfaction than another person will gain satisfaction from a $100 windfall.

Applying Behavioral Insights (Transference)

How can recalling the Ten Commandments reduce cheating on tests?

Can a small mirror or a set of eyes prevent theft at an unmanned snack cart?

Priming

- Can we prime students to be fascinated? Interested? Motivated?

Applying Behavioral Insights (Transference)

What can the measure of “natural athletic ability”, the Michigan Athletic Aptitude Test, of white students at an elite university taking a golf tasked test tell us about classroom performance and test design?

“Sports Strategic Intelligence test” of black students

Stereotype Threat and Identity Contingencies

Applying Behavioral Insights (Transference)

What can we learn from studying surgeons that botched operations that get sued and those that don't get sued?

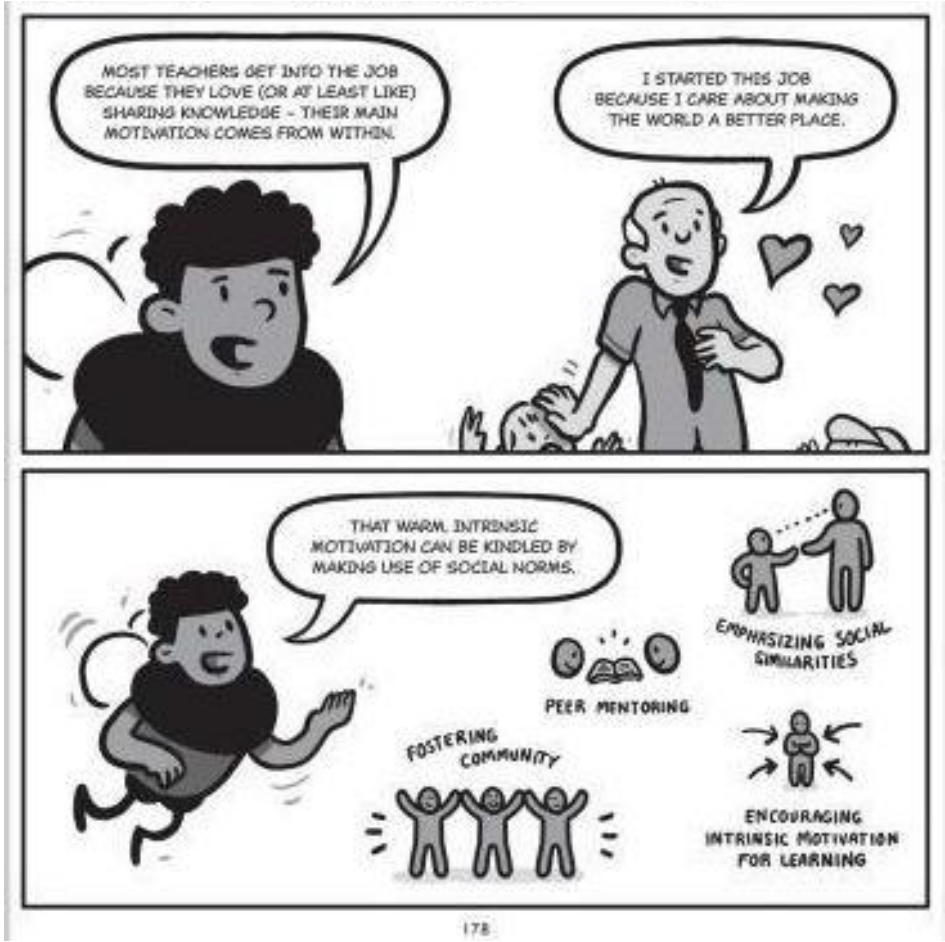
Emotional Connection

Interventions

Messenger Effect

Metamoment

Applying Behavioral Insights (Transference)

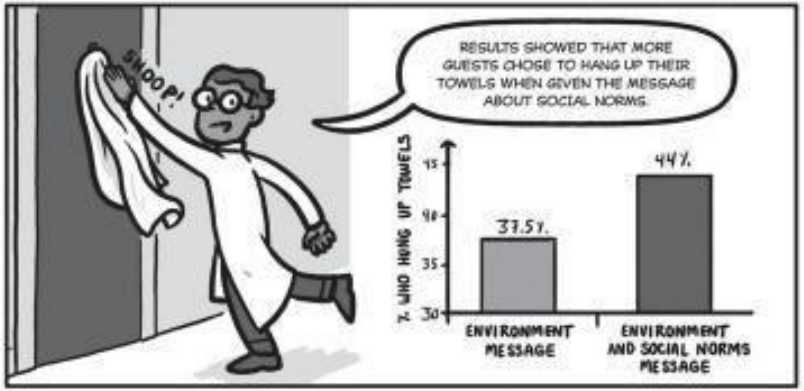


Interventions
Goals
Feedback

Applying Behavioral Insights (Transference)

How can mission and vision statements ACTUALLY help us achieve our goals?

Applying Behavioral Insights (Transference)

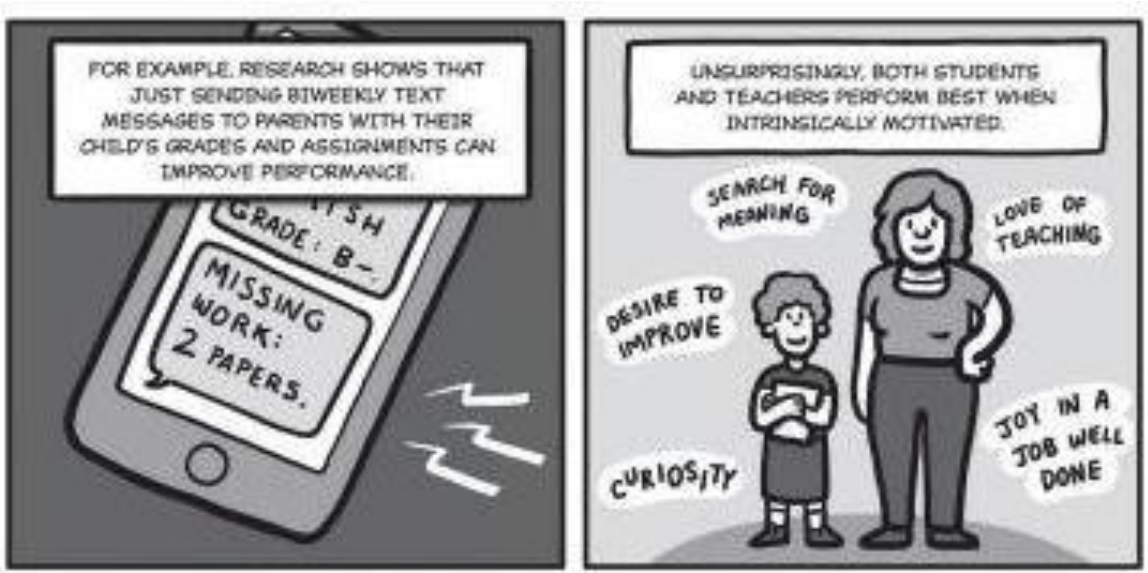


How do the subtle behaviors of others lead to our own?

Interventions:
Social Norms
Salient Feedback
Cascade/Contagion

Applying Behavioral Insights (Transference)

Interventions-
Reminders



Schools are social science labs...Limitations & Action Research

Educational action research can be engaged in by a single teacher, by a group of colleagues who share an interest in a common problem, or by the entire faculty of a school.

Action Research seven steps:

Selecting a focus
Clarifying theories
Identifying research questions
Collecting data
Analyzing data
Reporting results
Taking informed action

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Resources and Recommendations

IRS Behavioral Insights Toolkit
Behavioural Insights for Education Pearson
Wikipedia List of Cognitive Biases
Changing Teachers' Mindsets About Misbehaving Students by Jason Okonofua, David Paunesku, Gregory Walton (Stanford University)
United Kingdom: Behavioral Insights Team (BIT) Education
Misbehaving (Richard H. Thaler, 2015)
Nudge (Thaler & Sunstein, 2008)
Thinking, Fast and Slow (Daniel Kahneman, 2011)
The Honest Truth About Dishonesty (Dan Ariely, 2012)
Predictably Irrational (Dan Ariely, 2007)
Superforecasting (Tetlock & Gardner, 2016)
The Upside of Irrationality (Dan Ariely ,2010)
The Marshmallow Test (Walter Mischel, 2014)
Mindset (Carol Dweck, 2016)
Drive (Daniel H. Pink, 2009)
Grit (Angela Duckworth, 2016)
Delloite BE
Ideas 42
Whistling Vivaldi: How Stereotypes Affect Us and What We Can Do (Claude M. Steele, PhD, 2011)
Thinking, Fast and Slow (Daniel Kahneman, 2013)

Cognitive Load, Mental Energy, and Ego Depletion

“Mental energy is more than a mere metaphor”

Our “nervous system consumes more glucose than most other parts of the body and effortful mental activity appears to be especially expensive in the currency of glucose. When you are actively involved in difficult cognitive reasoning or engaged a task that requires self-control, your blood glucose level drops. The effect is analogous to a runner who draws down glucose stored in her muscles during a sprint. The bold implication of this idea is that the effects of ego depletion could be undone by ingesting glucose, and Baumeister and his colleagues have confirmed this hypothesis in several experiments.” (Kahneman p. 43)

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Self Image

A self-image can influence many of our actions. Most people have a positive self image.

Our view of self is a powerful driver of behavior in that our decisions to remain consistent with our self-image.

Our identity is heterogeneous (e.g., son, brother, teammate, friend, loner) and an aspect of identity influences one’s behavior at the time.

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Heuristics and Bias

We take mental shortcuts in complex situations, or “rules of thumb” in situations that arise.

- We are naturally biased/conditioned, and we use biases and heuristics to speed up decision-making.

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Intention and Commitment

When we make a plan or commitment, we try to follow through.

- Goals specific, realistic, and actionable.
- Declared to others.
- Strengthened by reminders and timing.

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Time Distortion

Now or later? “Now” typically wins.

Present rewards matter more than future ones, even when this is irrational with regard to long-term goals.

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Identity Threat and Identity Contingencies and Integrating

Identity Threat

According to social identity theory, group members may experience different kinds of identity threats. Group-status threat occurs when the perceived competence of the group is devalued. Group members may also experience various forms of social identity threats, one of which takes place when the moral behaviour of their group is called into question. The latter form of threat is sometimes experienced even by group members who can in no way be held personally accountable for their group's behaviour

Identity Contingencies & Identity Integrating

Research demonstrates that people at risk of devaluation based on group membership are attuned to cues that signal social identity contingencies— judgments, stereotypes, opportunities, restrictions, and treatments that are tied to one's social identity in a given setting.

Scenario Adapted from Whistling Vivaldi p138 by Claude M. Steele

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Choice Architecture

Changing the way our options are ordered or presented helps reduce cognitive load and enables us to make better choices. Choice architecture allows for simple choice and concentrates on defaults. Make the best choice, the easiest choice.

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Feedback and Reminders

Feedback and reminders highlight a specific piece of information to increase the chances that recipients will act in a specific way.

The transparency of regular feedback in the form of information improves satisfaction.

(Game theory)

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Framing and Priming

Framing refers to the fact that information can be presented in different ways, and that small changes in the display of messages or choices can drastically change the way they are perceived and the decisions that result.

Priming refers to actions being influenced by unconscious cues that are seen or experienced before a decision or

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Simplification

Simplification makes our tasks easier to accomplish by reducing complexity. Aspects of a task that make it seem more difficult are called friction costs.

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Social Norms and Timing

We are social creatures and care what other people think

Social norms are the values, actions, and expectations of a culture and work both implicitly and explicitly to affect behavior.

Timing matters.

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Reciprocity and Equity

We tend to return the treatment we receive.

People generally tend to return favors and pay back debts, engaging in a practice known as reciprocity, and they can feel obligated to provide preferential treatment to those who have given to them.

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Messenger Effects

Our reactions to messaging is related directly to opinions about who delivers it and how it is delivered.

Opinions about information, including moral judgments, legal judgments, and social judgments can be directly affected by the deliverer or source and the form in which the information is delivered.

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Individual’s Conditioning/Training

Our behavior usually has a function and conditioning/habits guides our decisions.

Environmental

Much of our behavior is unconscious and in response to our surroundings.

System 2, our automatic processing system, dictates/guides/”nudges” our actions and decisions are often conditioned by our environment.

Social

Much of our behavior is tied to what others think and do.

We try to present a positive self-image to ourselves and others (particularly if we believe they are watching).

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Classroom Connections/Questions

- What is your default setting when it comes to communicating with your students and families?
- What are the conscious choices you will make in thinking about how best to connect with your students and their families?
- Who has control in this classroom?
- What will you decide has meaning? How will you prime your students?
- Have you shared your personal commonalities with your students?
- Have you explored choice architecture in your classroom? In each lesson?
- How can every child reach success in your classroom?

Metamoment and System 1 and 2

In empathic listening, you listen with your ears, but you also, and more importantly, listen with your eyes and with your heart. You listen for feeling, for meaning. You listen for behavior. You use your right brain as well as your left. You sense, you intuit, you feel.

– Stephen Covey

Meta-Moment

Emotions can either help or hinder relationships, and we all have moments that get the best of us. The Meta-Moment helps students and educators handle strong emotions so that they make better decisions for themselves and their community. The Meta-Moment is a brief step back from the situation when we pause and think before acting. We ask ourselves, how would my “best self” react in this situation? What strategy can I use so that my actions reflect my best self? Over time and with practice, students and educators replace ineffective responses with productive and empowering responses to challenging situations. They make better choices, build healthier relationships, and experience greater well-being.

From RULER approach