

THE HUMAN ELEMENT—A NO BRAINER?

Using insights from neuroscience to transform decision-making behavior in (re)insurance



“The prudential rule is that underlying the old Warner & Swasey advertisement for machine tools: The man who needs a new machine tool, and hasn’t bought it, is already paying for it. The Warner & Swasey rule also applies, I believe, to thinking tools.” – *Charles T. Munger*¹

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introduction

The U.S. Federal Aviation Authority (FAA) initiated its first foray into better understanding the root causes of good and bad decision making in the cockpit in the 1980s—after it was confronted by data that showed that human error was, by then, responsible for 85% of all aviation accidents.²

The analysis of the “Human Element” in relevant aviation processes would ultimately lead to a revision in how air crew are trained to make decisions, how lessons learned from success and failure would be shared with the industry, and to the uplift in aviation safety performance from which we are all still benefiting.

Assuming that qualitative judgment in our industry can also be elevated, Gen Re has embarked on a similar journey. As modern risk professionals, our knowledge comes from data, actuarial analysis, research and complex computer models. Yet these quantitative elements represent only half the decision-making process. The other half is the “Human Factor” or “Human Element” in insurance underwriting; by increasing our focus on this discipline we hope to shape organizational cultures to support new, desired behaviors.

Our objective is not solely to take advantage of emerging insights from neuroscience and psychology to improve (re)insurance performance. Indeed, many primary insurers are already using what they’ve learned from these disciplines to help their customers make better protection decisions. As our work with our own underwriters gains momentum, we want to share what we’ve learned and engage our customers in a conversation about how Human Elements can influence both single risk decisions and the performance of an entire organization.

– Mo Tooker, President, General Reinsurance Corporation

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3 challenges

Three significant challenges need to be acknowledged and addressed to improve qualitative judgment:

1. **Subconscious First**—Our subconscious brains make sense of the object of our attention before our thinking brains get the chance to bring reason and analysis to bear.³ They do that by using pattern recognition skills, which tap into the long-term memories that are created by experience and reflection, to match the information under consideration with what they know of the world.

The catch: Such pattern recognition comes so easily and so invisibly to us that we set ourselves up for decision error by frequently *seeing what we expect to see*—and *failing to see what we should see*.

2. **Critical Emotions**—Our emotional brains subsequently tell us how they feel about the patterns our subconscious brains deem relevant, and encourage us to either *approach or avoid* the object of our attention on that basis—before our thinking brains have a chance to make an input.

Critically, since we cannot enact a decision without tapping into how we feel about it, our emotions also empower our actions.

3. **Biased Thinking**—By the time our thinking brain gets the chance to perform all the analysis it is capable of, our first stop should be to acknowledge the conclusion of the prior “analysis” that our brain has conducted—and *check its quality*.

Nonetheless, expending the energy to check, challenge and, ultimately, expand our thinking beyond the early diagnoses that are delivered to us can consume sufficient calories that could have made the difference between life and death in our evolutionary past.⁴ So, even while we are seeking to be rational, our brains are apt to conserve energy by engaging heuristics (or shortcut rules of thumb) to do our thinking for us.

This affects the information we attend to: we frequently process information in a biased fashion—whereby, for example, we may simply seek to prove our early diagnosis, pay excess attention to subsets of data when we should be weighing all the data, or be swayed by the actions of others when it would be wise to act on the basis of what we (and maybe we alone) can see.



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Managing for Errors of Perception as a Starting Point to Better Performance

Using pattern recognition skills that tap into the long-term memories created by experience and reflection, our subconscious brains make sense of the object of our attention before our thinking brain gets the chance to bring reason and analysis to bear.

In order to protect us from spending all our mental energy on routine tasks, the brain achieves massive economy of energy by automating the vast majority of its thought processes.⁵

The linear, sequential thinking we engage in—in tasks like the analysis of insurance risk—can increase energy consumption by up to 50% in a brain that “already” uses one fifth of our average daily calorie intake.⁶ By comparison, the automatic parallel processing that takes place in our subconscious brain consumes little energy, operating at a speed that is 20 times faster than conscious thinking,⁷ and granting us unrivaled capacity to identify and make sense of relevant patterns in complex data.⁸

Our low-energy subconscious brain therefore goes to work on a problem long before our high-energy thinking brain. Experiments have revealed that our subconscious brain arrives at a decision between 7 and 10 seconds before we are consciously aware of

deciding.⁹ This is why a trained doctor will typically (and unknowingly) generate a diagnosis within 18 seconds of meeting a patient.¹⁰ It is also why chess grandmasters are able to code a chess game that is in play within two seconds, and why Professor David Perkins at Harvard University maintains that 90% of decision errors are errors of perception.¹¹

“Snap and Stick” as Barriers to Better Performance in (Re)Insurance

Building a pause into a decision-making process allows time for an individual or team to reflect on their initial instinctive response. This intervention has proven to be critical to many facets of performance.¹²

Every situation our brain encounters has multiple interpretations.¹³ Categorization is the automatic way in which we conserve the energy that would otherwise be required to deal with this.¹⁴

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That is, when we are presented with a data set, for example a case or a renewal, our natural state is to snap to a very quick and distinct understanding of the situation, which is informed by our experience.

Thereafter we are highly likely to stick to this instinctive understanding.¹⁵ This happens mainly because a “winner-takes-all” principle supports categorization by *entirely suppressing* the information carried by any neuronal groups that might suggest an alternative version of reality,¹⁶ but also because our brains subsequently engage another energy-saving device that governs how we think about the version of reality to which we have snapped.

This energy-saving device comes in the form of employing heuristics that enable shortcut routes to decision making.

In this case, the heuristic that inclines us to stick with an early diagnosis is the confirmation bias (or first conclusion bias). This bias speaks to that part in all of us that seeks out information supporting our prior conclusion, and cuts off the search for evidence that contradicts our judgment. Indeed, the confirmation bias is sufficiently strong to encourage us to use *any* information to support our decision, even information that should cause us to call our initial conclusion into doubt.

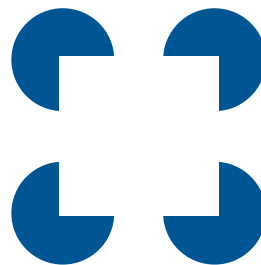
The advantage of such automatic (and invisible) thinking is clear if the ultimate job of the brain is to cut through ambiguity and uncertainty in order to initiate a select action in which we have some courage of conviction.¹⁷ The disadvantage is that

categorization and confirmation come so naturally to us that we can easily see what we expect to see, fail to see what we should see, and find all the supporting evidence we require to proceed with a flawed solution.

Treating “Snap and Stick” by Diagnosing Before Treating

Consequently, the first step in any critical decision-making process is to ensure that participants in a strategic discussion fully understand the starting point before they even consider the strategic initiatives that might take the company to a desired end point—to *diagnose before treating*. (For example, do we have a complete understanding of a customer’s strategic and operational goals, informed by multiple perspectives before we seek to design a product with the customer in mind?) The more time teams spend in diagnosis mode the faster, more obvious, and better the treatment becomes.

Additionally, snap and stick behaviors can be the source of many of the barriers to better teamwork and collaboration that exist inside any organization.



For example, if a team member was asked to look at the figure opposite, he or she might see a square, which is the most common answer when people are asked this question. Or, if

the person grew up in the 1980s playing computer games, he or she might see images from Pac-Man.¹⁸



Reality is not a solid. It is a liquid, *our liquid*, the way we see the world.¹⁹

This creates ideal conditions for standoffs, circular arguments and meetings that fail to progress—often simply because different colleagues tend to have different understandings of the proposition at hand, and can be inclined to look for reasons why they are right, rather than seek the wisdom in another person’s perspective.

Indeed, data suggests that approximately two-thirds of North Americans have a natural bias for being in “broadcast mode” whenever they engage in a conversation with a colleague,²⁰ the mode of listening that Hugh Blane, President of Claris Consulting, reports seeing most often in the workplace. It’s what he calls “listening to respond.”²¹ Blane considers listening to respond to be a death knell for organizational performance. When people engage in this behavior, they do not listen to the other person talking; they listen to their own internal dialogue about what the other person is saying, waiting for the opportunity to broadcast their perspective.

Daniel Kahneman, Senior Scholar at the Woodrow Wilson School of Public and International Affairs, uses the terms: System 1 for subconscious, “thinking fast,” and System 2 for conscious, “thinking slow.”²²

From our perspective, listening to respond is a System 1 behavior. It does not wait for all the data to come in, it does not “do” ambiguity; and it comes easily to most of us. In contrast, “listening

to understand” is an exercise in which parties to a discussion take the time to see reality from another person’s perspective, appreciate that person’s reality, and ensure he or she feels understood before any discussion progresses.

Equally, listening to understand strikes us as a System 2 behavior. It is reflective and contemplative, and as such it consumes more processing power—at least at first. *But experience also suggests it can massively reduce the snap and stick barrier to better conversations, and it can become as habitually instinctive and low-energy as listening to respond.*

Using Debriefs to Develop More Complete Expert Experience Banks

In the course of a risk professional’s work, any new insights gained from a task at hand have a life expectancy of around 15 seconds—unless that individual relates them to what he or she already “knows” about how the world works, so that a new association between this new insight and old learning can be reliably stored in his or her long-term memory.²³

In this way, the professional’s long-term memory comes to hold all of his or her learning from prior experience. It is essentially the structured, and semi-structured “database” that allows that individual to excel.

The natural way for professionals to encode insights from experience into long-term memory is (like most people) to store a summary of the *gist* of what

happened, tagged with information about how the experience made the person *feel*, along with a *small* set of specific representations of its key features.²⁴ This “casual” approach to encoding learning from experience is apt to build experience banks that leave people prone to subsequent decision error because they do not capture the cause and effect detail of experience.

The reconstructive nature of memory also means that when we retrieve data from such experience banks, information that is *inconsistent* with the gist we laid down is forgotten, or leveled, and features that *reinforce* our beliefs about the experience are emphasized, or sharpened—so that our experience banks can become corrupted over time.²⁵ (We can also be subject to biases of memory retrieval such as more easily bringing to mind data that is more salient or more available, or simply data that is more recent, each of which manifests in associated biases of salience, availability and recency.)

In comparison, the gold standard in encoding learning from experience in long-term memory is an after-action debrief to identify the root cause analysis of an outcome in order to explore possible process improvements.²⁶ In debrief meetings, participants freely admit their mistakes and celebrate their successes. They identify the root causes of successes and failures so that lessons learned from experience can be *crystallized, documented and codified*. This means such lessons can be absorbed by those involved in the subject matter

of the debrief, and that learning can be reliably retrieved at a later date *and* shared throughout the organization in real time.

The Uplift Available to (Re)Insurance Professionals From a Neuroscience Perspective

With the volume of unstructured data growing significantly faster than structured data, calling on the (re)insurance industry’s ability to grow the resource required to extract value from the opportunity contained within Big Data is a potentially large, if not tall, order.

In comparison, our understanding of the neuroscience of decision making suggests a small *contextual change* in how we decide we can deliver a material uplift to performance.

Take, for example, an experienced underwriter tasked with pricing the risk for a diabetic lawyer who skydives and teaches Sunday school;²⁷ he can direct his attention to where he sees fit and equip himself with appropriate thinking tools. Nonetheless, he will also be confronted by natural constraints on his capacity to hold significant variables in his mind, simply because the processing capacity of conscious thought is so small that it gets rapidly overwhelmed.²⁸ (Try counting backward in threes from 100 while simultaneously putting together your grocery list for the week to see that this is the case, says Loran Nordgren, Associate Professor at the Kellogg School of Management.)



In contrast, our ability to process information in our subconscious minds is significantly greater. That is where we make sense of the product of our conscious analysis—where we make connections between the focus of our analysis and the rich patterns stored in our long-term memories. It is where we tap into the experience banks that comprise our subject matter expertise.

The catch: *What the underwriter's subconscious brain knows about the case risk is not fully available to him while he is looking at it.* And, paradoxically, the insights contained in his experience bank only become fully available to him when he looks away.

People who take the time to analyze a decision before enacting it naturally generate better performance than those that rush to a quick diagnosis. That is a given. But the best decision makers have been found to conduct their analysis, and then deliberately distract themselves (for at least 15 minutes) before arriving at a conclusion—which now becomes more reliably informed by their subconscious expertise.²⁹

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Tapping Into How We Feel To Improve Performance

Our emotional brain tells us how we feel about the patterns our subconscious brain deems relevant, and encourages us to either *approach or avoid* the object of our attention on that basis—before our thinking brain has a chance to provide an input.

Every risk professional has a personal risk assessment and risk management expert sitting inside his head; it is called the emotional brain. Our emotional brain enabled us to survive and prosper for thousands of years before we developed the capacity for the language, calculus and analytical reasoning that sits inside our pre-frontal cortex. It evolved in order for us to determine what to approach and what to avoid—to prioritize the avoidance of harm over the exploitation of gain (which is why many of us exhibit the bias of **loss aversion**).³⁰

Nonetheless, our emotions exist in a state of constant alertness for both risk *and* opportunity. If neither is perceived to be present, our emotions will “sleep” and pass the governance of our decision making to what we consider to be our thinking brain.³¹ When aroused, however, our emotional brain does not engage in probability theory; its job is to deal in what *might* happen rather than what is *likely* to happen, and it engages the

“language” of catastrophe and blue sky to do so, in preference to the language of statistics.

As risk professionals, it would therefore be natural to think we should eliminate emotion from our decision making. After all, is this not what a quantitative approach to (re)insurance decision making is (at least partially) designed to achieve? The findings from neuroscience research are that we cannot do this, and that it would be inadvisable to do so.

How We Feel Is Instrumental to How We Decide

First, *emotion is faster than cognition*. Every piece of information we encounter is attended to by our emotional brains *five times faster* than our ability to think about it, so it is impossible to eliminate our emotional reaction to information.³²

Second, *it is impossible for us to initiate a decision unless we can tap into how we feel about it*. The neuroscientist



Antonio Damasio has documented numerous cases of individuals who have sustained brain damage to areas of the brain that are critical to experiencing emotion. After their injuries, these patients were fully capable of engaging in rational analysis. But, deprived of access to their emotional selves, they became completely unable to make even the simplest decisions, such as choosing between two dates for an appointment, or what clothes to wear on different occasions.³³

Finally, how we feel about a proposition may contain insights that are critical to its evaluation.

Damasio also conducted experiments in which subjects were given four decks of cards, two rigged to produce gains and two to lose.³⁴ In a game of high card wins, he asked the subjects to flip the cards and pick from any deck. He measured their skin conductance responses and periodically asked participants what they thought was going on in the game.

By the time people had turned roughly 10 cards, they started to show physical reactions when reaching for a losing deck. But they could not articulate their feeling that two of the four decks were riskier until they turned over about 48 cards. Only after turning over an additional 30 cards could participants explain why their feeling was well-informed.

The physical response felt by participants in this game is the product of a chemical response—the release of cortisol, which tells the participant that all

is not right with the world. The emotional reaction this induces is sufficient for players to tilt the odds in their favor and (mostly) pick from the winning decks, even before they can reason that they might be winning decks. In contrast, when Damasio invited patients who could not experience emotion to play this game, they typically lost all their money because their emotional brains failed to register the risk that would ultimately become apparent to their thinking brains.

A “Feeling as Thinking” Health Warning

As valuable as our emotional reaction to risk might be, research has also revealed that how we feel can spuriously become what we think.³⁵ Imagine two groups of people that have been invited to test the quality of a computer keyboard. One group does so while clamping a pen between their teeth lengthways, the other while holding a pen between their lips by its tip. The result is that the “teeth” group rates the keyboard more favorably than the “lips” group.

This is because when we hold a pen between our teeth it forces a weak smile. Our brains detect the smile, ask why we are smiling and supply the answer in the shape of “it must be because we like this keyboard.” Conversely, when we hold a pen between our lips it forces us to frown. Our brains detect the frown, and we express a less favorable opinion of the keyboard.

This is how we frequently decide. We tend to look for reasons that support our emotional reaction to an

object. And that means *how our emotional brains feel about risk frequently becomes what our analytical brains end up proving.*

That is good when our emotional reaction to the risk is initiated by a cause/effect attribute of the situation at hand, which prior experience has already placed in our long-term memories. It is not so good when how we feel about the risk is initiated by a feature that does not speak to likely outcomes, such as how familiar the risk is to us, or how representative it is to similar risks that turned out well or badly. (The **familiarity bias** states we are inclined to judge risks that are familiar to us as being inherently less risky than unfamiliar risks, irrespective of the available data, whereas the **representativeness bias** encourages us to look for points of similarity between one risk and another, overlooking points of difference in the process.)

A Treatment for Improving (Re)Insurance Decision Making by Empowering Emotions in (Re)Insurance

Given the critical role that emotions play in enabling good decision making, and the risk that how we feel can become what we think, informed practitioners take time to understand the basis of their emotional reaction to an idea. That is, they engage in a form

of two-track analysis in which they ask *how do I feel versus what do I know?*

In stage one of this process, they are interested in exploring whether their emotional reaction contains information to which they should pay attention. Is there something in the case at hand that resonates with the data in their experience banks? Or is their emotional reaction premised on a feature of the current situation that should have no bearing on how it should be treated?

Equally, if how someone feels about a proposition inclines them towards or away from it, they explore the logic, reason and “proof” that their emotional brains may have harnessed in support of how it feels. Thereafter, they test whether each point of logic can stand up to a challenge process that seeks to disconfirm its merit or relevance.

In the second stage of the process, practitioners go the extra yard and compare how they feel with what their experience banks know about the cause and effect relationships that underpin large sample outcomes in similar situations. They will search for a reference class of similar decisions, compare the current situation with the reference class, and adjust for any possible bias in their appraisal.³⁶



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Reigniting Conscious Awareness of How We Decide

By the time our thinking brain gets the chance to perform all the analysis it is capable of, our first stop should be to acknowledge the conclusion of the prior “analysis” that our brain conducted—and *check its quality*. Nonetheless, even while expending the energy to be rational, our brains are also apt to conserve energy by engaging heuristics to do our thinking for us—but they frequently lead us to decision bias.

While quantitative models are designed to treat the frailties of the Human Element in decision making, the (re)insurance industry also accepts that the models cannot substitute for the unparalleled advantage of the “human judge,” which is the risk professional’s ability to detect a rare fact and decide accordingly.³⁷

But we also appear to have forgotten that all proven experts *arrive at*, rather than *calculate*, the decisions that define their performance. Informed by years of creating experience banks filled with probabilistically reliable cause and effect relationships that exist in the domain of their decision making (hence the critical nature of the debrief), experts “dump” the spreadsheet, throw its contents in the air and look for patterns at every level.³⁸ (Indeed, the more experienced the expert, the more likely he or she is to decide this way—even if unable to articulate that this is the case.)

In our opinion, as this pertains to underwriting, expert (re)insurance underwriting is not, therefore, about having all the data. It’s about an individual’s ability to recognize the swamping forces in the data that govern outcomes in a probabilistic sense. And it is this ability that enables expert underwriters to live in information gaps and write risks even when gaps are present, confident in the knowledge of their process.

However, the expert’s unique capacity to infer meaning in complex data over and above that of his quantitative counterpart *is not the same as having a unique capacity to predict on the basis of that inference*.³⁹

Reflection on the Role of Decision Bias in (Re)Insurance

This paper has explored a host of ways in which judgment may err due to (automatic) errors of perception and categorization, and the role of (equally automatic) emotions in decision making. Along the way it has touched on the specific subject of

decision bias, which we will now explore in more detail.

When Gen Re's London team was working through renewals in the mid-2000s, some underwriters began to realize that the company had started giving away rates, terms and conditions primarily because, almost unknowingly, it had been overly influenced by what people were hearing in the market.

Due to this **anchoring bias**, each renewal was initiated with a certain percentage reduction already in mind, even if the reduction was unwarranted. (In a similar vein, last year Gen Re's Tad Montross noted that 25 years ago some said the industry's extreme event would be a \$50 billion natural catastrophe loss and that, although the industry has since had one, the industry is still anchored to \$50 billion to \$100 billion as a tail event.)⁴⁰

Beyond the four biases we've already discussed (**Snap and Stick, Loss Aversion, Feeling as Thinking, and Familiarity Bias**), we have identified at least eight additional biases that may be influencing our decision making.

These biases are:

- **An Outcome Bias** that inclines people to pay excess attention to business results at the expense of overlooking or underweighting the quality of the decision-making processes that generate their results.
- **Regret Avoidance**, whereby people dislike the feeling that business results might have turned out differently had they made a small change in their approach—which means they are frequently drawn towards those decisions that contain less potential for regret.
- **A Hindsight Bias**, via which people tend to estimate the probability of an outcome occurring as being much higher once they are in possession of the outcome data than they did before they had the data—which means that when people judge each other's performance, they find it difficult to imagine how the results they are appraising may have turned out differently.
- **An Ambiguity Aversion** that inclines people towards making decisions in the presence of well-defined probabilities over uncertainty—which means that people frequently stick to doing business inside their comfort zones at the expense of seeking to explore new opportunities.
- **An Illusion of Control**, via which people like to bring skill to bear in situations in which outcomes may be governed by chance—which means people are drawn to business they can "touch" at the expense of developing business to which they are currently less close.



- **Narrow Framing** that inclines people to judge individual risks in isolation, rather than in context of the portfolio of risks over which they preside, or which they might embrace, which means people may walk away from individual opportunities with high positive expected returns.
- **A Justification Bias**, via which people gravitate towards those decisions that have most arguments in their favor—which means they defer from decisions that may convey higher expected returns but which look less obviously “right.”
- **And finally, an Obedience to Authority Bias**, via which people may be overly inclined to defer to, and fall in line with, people that are senior to them, to subject matter experts, or simply to “the way things are done around here” at the expense of suppressing what they know to be the validity of their own judgment.

From Decision Bias to a More Holistic View of (Re)Insurance Performance

The catalyst for the work Gen Re conducted on the Human Element in insurance was the realization that the judgment its underwriters applied to quantitative models deserved as much attention as the models themselves.

What started with a focus on how decision biases work, and which particular biases might manifest within Gen Re, evolved into an application of more expansive insights into how our brains work.

Take the initial anchoring hypothesis previously mentioned, for example. In addition to the possibility that an anchoring bias was inadvertently influencing renewal rates, the company questioned whether it was also prone to a **herding bias**, which would incline staff to believe that, if everyone else in the market was pricing this way, could doing so really be wrong?

Herding occurs when the behavior of other individuals is visible to us. But it is most likely to manifest when reputations are also at stake (there should be something on the line, which promises personal consequences for either going along with the group or standing alone), and in the presence of uncertainty (for that is when we are most likely to infer that someone else’s behavior contains information we may not have).

When these ingredients are in place, the pricing behavior of just one individual can ignite an “information cascade” in which, for example, underwriter A, who is uncertain of the right price for a class of risk, observes the behavior of underwriter B, and copies that behavior in order to safeguard his or her own status—triggering underwriter C, who is similarly uncertain, to do the same.⁴¹

As Warren Buffett observed, “Failing conventionally is the route to go; as a group, lemmings may have a rotten image, but no individual lemming has ever received bad press.”⁴²

All the while, we do not know the “insight” underpinning underwriter B’s decision. Maybe it was a careful calculation informed by experience. Maybe it was a desperate attempt to sustain cash flow, or hit a revenue target. Maybe the underwriter’s initial judgment was subject to confirmation bias, which he failed to challenge. Whatever the reason, the cascade is in flow.

Reflecting on the mechanism of the herding bias, and when information cascades are most likely to occur, can give re/insurers additional courage in the validity of their internal expertise, and the discipline to stay grounded in what their analysis says about price.

In Gen Re’s case, reflection also inclined us to look inside and to take a more holistic view of our performance. In this case, we looked at the way in which one person’s judgment might affect a whole team’s judgment in similar conditions of uncertainty, not just in underwriting decisions but in any scenario in which the ingredients for herding might exist.

So, as an extension of the listening to understand model, parts of our business are now experimenting with an approach whereby each participant in a decision-making process is encouraged to bring his or her perspective to the surface *without* colleagues expressing an opinion on that perspective, until all colleagues have done the same.⁴³

Only after all perspectives have been brought to the surface do participants engage in dialogue. This is now increasingly of the form: *What are you seeing?* as opposed to *Here’s what I’m seeing.* When meetings are conducted in this way, the scope for herding behind the first strong opinion that is aired in a discussion (typically early in a decision-making process before all perspectives have been heard, and typically by an authority figure) is much reduced.

the opportunity

Changing Contexts to Transform How We See, Think and Act in (Re)Insurance

One of the biases, which academics believe is so automatically ingrained in our energy conserving brains that they inserted the word “fundamental” into its title, is the **fundamental attribution error**.

This bias inclines us to overweight the contribution that attitude and skill makes to individual performance at the expense of underweighting the role played by the situation in which an individual performs a task.

In contrast, research into this subject suggests that the context in which an individual works can have an *overwhelming* influence on his or her performance.⁴⁴

In a now famous experiment, academics created a “prison” in the basement of Stanford University, populated by a group of healthy, intelligent middle-class men who were randomly assigned roles as either guards or prisoners.⁴⁵ The experiment found that these men became “totally different creatures” within a week, and the experiment had to be abandoned early. Specifically, the guards began to exhibit abusive behavior towards the prisoners and the prisoners started to act like victims.

The lesson from the experiment? We would all like to think we are in control of our own behavior. In fact, the context in which we perform has an overwhelming influence on how we conduct ourselves. (And, of course, this principle is the basis of just about every reality TV program we have ever seen.)

The Opportunity Contained in Changing the Context in Which People Work in (Re)Insurance

The fundamental attribution error can incline organizations to pay excess attention to improving performance by working at the *individual* level of performance. The lesson from the Stanford Prison Experiment inclines us to also think long and hard about the *context* in which employees perform.

Insights from neuroscience are increasingly confirming what we have learned from our own experience:

1. As much as 95% of our decision making is the product of subconscious processing that is invisible to what we consider to be our “thinking” brains.⁴⁶
2. You cannot improve someone’s performance by simply telling them to make better judgments, nor can you necessarily “bribe” them to do so with pay for performance.⁴⁷
3. However, we can change the context in which people work to encourage desired behaviors and, over time, encourage new subconscious processes to replace the old.⁴⁸



Simply raising awareness—asking people to be aware of the risk of herding, or the effects of snap and stick behavior or confirmation bias—is not enough.

Given what we know of our habitual brains, that approach is likely to have only limited impact because subconscious, automatic behaviors are hard to displace. *Instead, we seek to create a context in which new habits are more likely to get practiced and stick, so that they become the energy-saving default behaviors of the future.*

We are still learning and continuing to improve standards of qualitative judgment within Gen Re.

As a natural starting point for a risk-carrying organization, we are very much focused on underwriting-related core processes; however, the applicability of the findings is not at all limited to this area. The impact of the “Human Element” is to be found in every critical decision-making process. Gen Re has also embarked on a corporate diversity initiative, and we believe that what we have learned about biases will also have a significant impact here. The way we hire and develop people, how people are chosen for projects, new positions and promotions, all involve qualitative judgment.

It is fair to say that we have only started that journey, but the more we know, the more we want to learn about the impact of the Human Element in (re)insurance.

—Mo Tooker

appendix

Summary of the 12 Decision Biases

Snap and Stick

We have a tendency to jump to very quick understandings of complex propositions.

We become anchored to our initial diagnoses by seeking out data that confirms them.

Feeling as Thinking

We process every piece of information we encounter through our emotional brains first, before our thinking brains get a chance to bring their perspective to bear.

How we feel about a piece of business frequently turns into what we think about the business, irrespective of what we objectively know.

Loss Aversion

We dislike losses more than we like gains.

We overweight the possibility of loss in our decision making.

Outcome Bias

We are inclined to pay excess attention to business results.

We overlook or underweight the quality of the decision-making processes that generate our results.

Regret Avoidance

We dislike the feeling that business results might have turned out differently had we made a small change in our approach.

We are drawn towards those decisions that contain less potential for regret.

Hindsight Bias

We tend to estimate the probability of an outcome occurring as being much higher once we are in possession of the outcome data than we did before we had the data.

When we judge each other's performance we find it difficult to imagine how the results we are appraising may have turned out differently.

Ambiguity Aversion

We have a preference for making decisions in the presence of well-defined probabilities over uncertainty.

We frequently stick to doing business inside our comfort zone at the expense of seeking to explore new opportunities.

Familiarity Bias

We tend to judge risks that appear familiar to us as being inherently more attractive than risks with which we are less familiar.

We are inclined to judge clients and lines of business that may be new to us as more risky than is objectively the case.

Illusion of Control

We like to bring skill to bear in situations in which outcomes may be governed by chance.

We are drawn to business we can "touch" at the expense of developing business to which we are currently less close.

Narrow Framing

We are inclined to judge individual risks in isolation of the portfolio of risks over which we preside, or which we might embrace.

We frequently walk away from individual opportunities with high positive expected returns.

Justification Bias

We gravitate towards those decisions that have most arguments in their favor.

We put off or avoid decisions that may convey higher expected returns but which look less obviously "right."

Obedience to Authority

We learn to pay attention to authority figures.

We can be overly inclined to defer to, and fall in line with people that are senior to us, to subject matter experts, or simply to "the way things are done around here" at the expense of suppressing what we know to be the validity of our own judgment.

Endnotes

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