

Making good decisions is a critical skill in managing a business, or leading a group to a particular goal. Over the past two decades, research in psychology, economics and other social sciences has delineated many of the elements of how decisionmaking is performed. The initial theories of decision making, heavily based on mathematical models, have subsequently been tested in real-world

applications. Out of this research, a new approach, called *behavioral decision theory*, has arisen. We have applied it successfully in a great variety of organizational, institutional and technical settings.

Becoming a good decisionmaker is like becoming a good athlete. You need to examine the process of decisionmaking systematically. You need to know how each part of the process contrib-

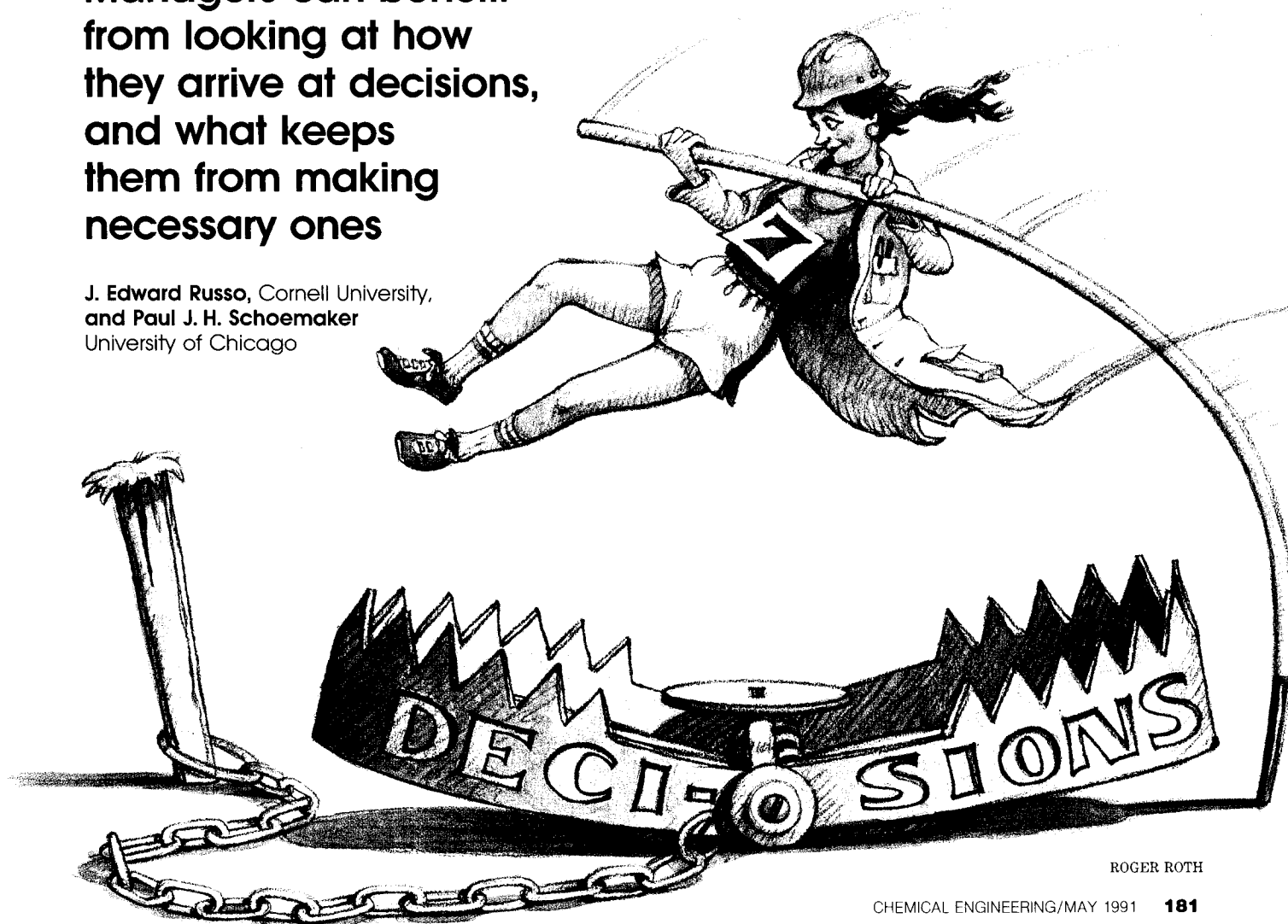
utes to a good decision, and know the errors associated with each part.

And you need to work consistently on eliminating the errors that frequently get committed in each phase. For example, managers we've trained are alert to overconfidence in their judgments. They avoid rationalizing mistakes in past decisions. If they have come to liken their business to a football game, they constantly check to see

DECISION TRAPS AND HOW TO AVOID THEM

Managers can benefit from looking at how they arrive at decisions, and what keeps them from making necessary ones

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whether that metaphor still fits their business's real problems. The pharmaceutical firm Eli Lilly & Co. has embarked on a "critical thinking skills" program for its managers, built around our decision-trap analysis.

Key elements

In our book, *Decision Traps*, we suggest that decisionmaking should be broken down into four main elements. Every good decisionmaker must, consciously or unconsciously, go through each of them:

1. Framing. Framing is structuring the question. This means defining what must be decided, and determining in a preliminary way the selection criteria. A frame, then, is a mental structure people create to simplify and organize their world.

For example, in deciding whom to promote you may simply define the problem as "selecting the person whose leadership is likely to produce the best performance in the work group." Note that this frame pushes other aspects of the issue into the background, such as ability to connect with other parts of the organization, rapport with external clients, or rewarding the employee who has worked hardest or who has most seniority

2. Gathering intelligence. Seek both the facts and reasonable estimates of what you don't know to make the decision. Good decisionmakers manage intelligence-gathering with deliberate effort to avoid such failings as overconfidence in what they currently believe and the tendency to seek information that confirms their biases. As Will Rogers, an American humorist, once said, "It's not what we don't know that causes trouble. It's what we know that ain't so"

3. Coming to conclusions. Sound framing and good intelligence-gathering don't guarantee a wise decision. You cannot consistently make good decisions using seat-of-the-pants judgment alone, even with excellent data in

front of you. A systematic approach forces you to examine many aspects and often leads to better decisions than hours of unorganized thinking would. For example, numerous studies have shown that novices as well as professionals make more accurate judgments when they follow systematic rules than when they rely on their intuitive judgment alone

4. Learning (or failing to learn) from feedback. You need a system for learning from the results of past decisions. This usually means keeping track of what you expected would happen, systematically guarding against self-serving explanations, and then making sure to review the lessons this feedback produces.

At minimum, managers should sit down for a few hours twice a year with their associates to look back. Have they been collecting enough data to keep track of the lessons of experience? What have they learned in the past six months? How should it change their future work?

Reframing

These four elements provide the backbone of almost any decision process. Information obtained during the intelligence-gathering phase should often inspire you to go back and reframe your decision. Complex problems may require a series of smaller, but interrelated, decisions, each of which will involve several framing decisions, coming-to-

conclusion steps or feedbacks.

All the preceding seems relatively straightforward, and fits one's common-sense view of the world. Why then, is decisionmaking often so tortuous, and so wrong? The reason is simple — errors creep into the process. We call these errors *decision traps*. They are mistakes that either start the decisionmaking process down the wrong path, derail it as it proceeds, or mask its results as something other than a deliberate decision. We have identified 10 of the most serious ones below.

1. Plunging in. Often, there is a temptation to come to a quick conclusion about an issue, by gathering a little information and concluding the process. Time needs to be taken to think about why *this* decision needs to be made (and not another, or no decision at all), and what information is available or needs to be obtained before a decision can be made. Most of these preliminary steps involve the technique of *framing* an issue or problem so that it can be analyzed correctly.

During our seminars for clients, we survey how managers spend their time. We have found that most of their time is spent in gathering intelligence and coming to conclusions, and the least time is spent on framing. After our seminars, these managers tell us that they will spend more time on framing and on learning from their experiences. They will spend correspondingly less on intelligence-gathering — which can often be delegated — and, when the process works correctly, less time will be spent on coming to conclusions

2. Frame blindness. The mental frame for decisionmaking is just like a picture frame — it includes some things within its borders, but not everything. Frame blindness is setting out to solve the wrong problem because you have created a mental frame for your decision that causes you to overlook the best options, or to lose sight of important objectives.

A good example of frame blindness

**Time needs to
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occurred in the U.S. automobile industry from the 1940s to the 1970s. Over that time, managers became very good at optimizing the production of different models of the same car to meet expected market demand. The changeover time from one model to another, however, was taken as an immutable constant (that is, not part of the frame). As long as changeover time was high — usually a full workshift — optimization dictated production runs of thousands of cars of one type. This meant large, costly inventories.

Japanese producers, on the other hand, framed the production-inventory problem to include changeover time itself. They soon discovered that efficient production required lowering the changeover time. This enabled smaller production runs (with lower inventory carrying costs) and faster adjustment to market demand. Today, manufacturers from both countries are much more nimble at making changeovers.

To keep frame blindness from occurring, spend extra time thinking about:

- The boundaries set on a problem
- The reference points used to define success or failure
- The yardstick for measurement

3. Lack of frame control. If you are the one responsible for making a decision, you should be the one to set the frame for that decision. All too often, though, the frame is set by others, and the decisionmaker follows along, wittingly or unwittingly. If you have taken the time to analyze the frame that currently exists for an upcoming decision, and find it wanting, reframing should occur. To reframe, you must:

- Understand your current frame and its sources
- Generate alternative frames
- Select the most appropriate

4. Overconfidence in your judgment. Along with frame blindness, this error causes decisionmakers to lose sight of what needs to be analyzed before a decision is made. Keeping an open mind about what information is needed is an important attitude to pre-

Be a realist in making a decision, and an optimist in implementing it

vent this overconfidence. A good way to systematically winnow out assumptions that are “certain” is simply to list all the information needed for a conclusion, just after a problem has been framed. It is also important to have the discipline to seek information that might disarm your opinions

5. Shortsighted shortcuts. Relying inappropriately on rules of thumb, trusting implicitly the most readily available information, and anchoring conclusions on convenient facts can all derail rational decisionmaking. Technically, rules of thumb and similar decisionmaking shortcuts are called *heuristics* (from the Greek word for “discover”). We all need such heuristics in order to function in the modern world. Using them is not wrong, when it is done *consciously*.

“Availability bias” is a term psychologists have coined to denote the willingness with which people color their thoughts, purely on the basis of how often they hear about something. To cite just one example: Which of the following causes more deaths — lung cancer or motor vehicle accidents?

Surveys have shown that most people pick the latter cause, but in reality, the former causes almost three times as many deaths. Newspapers report on motor vehicle accidents 40 times as often as on lung cancer.

“Anchors” are convenient numbers or facts that play too large a role in making decisions. Annual sales figures, energy consumption, or the prime

lending rate — all such data do have some relevance to current decisionmaking conditions, but can often be used to color a decision, even though the underlying circumstances could change them dramatically in an instant.

The value of overconfidence

Both decision traps 4 and 5 address the confidence that one feels in making an assumption. Confidence — even overconfidence — is critical to doing one’s work (think of the “power of positive thinking”), but it can hurt the decision-making process. The ideal businessperson is a *realist* when making a decision, but an *optimist* when implementing it

6. Shooting from the hip. Suppose your frame captures the essence of your problem. And you’ve collected excellent intelligence. Will you make the best choice? Not always.

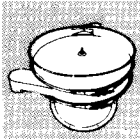
Too many people pose their questions carefully, and research them thoroughly, but then “wing it” when it comes to actually deciding. Most people make decisions intuitively (their “gut feeling”), their minds are processing part or all of the information available automatically, quickly and without an awareness of the details. But intuition is colored by mood, circumstances — even the weather. Over 100 studies have shown that you can develop procedures to make decisions better than with your unaided intuition.

The best substitutes for intuition rely on systematic thinking. One simple way to make a list of the pros and cons of a certain decision, and add each column up. Another is to assign a weighting factor to each of them, and see where the balance lies. Statistical tools such as regression analyses can be applied to many such lists

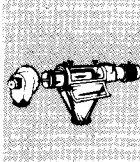
7. Group failure. If you start a decisionmaking process with the smartest, most experienced people, you will inevitably come to the correct conclusion, right? Wrong. The failures of what has come to be called *groupthink* are well-known. Generally, groupthink sacrifices clearheaded decisionmaking for



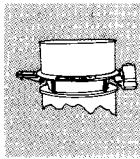
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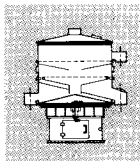
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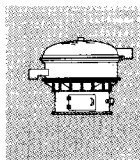
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YOU & YOUR JOB

the preservation of the psychological well-being of the group members. Groupthink occurs most often when certain conditions exist:

- The group members know and like each other
- The group is insulated from outsiders
- Stress levels are high because of the need for a swift decision
- The leader has made clear at the outset what the preferred choice is

Probably the biggest barrier to outstanding group decisionmaking is the misconception that conflict is bad. Conflict among ideas is necessary and valuable if a group decisionmaking process is to accomplish more than simple groupthink. Healthy conflict occurs in groups that have heterogeneous members (that is, from different backgrounds); that use processes designed intentionally to delay forming an early consensus (such as subdividing a group into two, then re-merging them); and that have leaders adept at framing questions. Remember, be critical of ideas, not of people

8. Fooling yourself about feedback. It is sometimes painful to look back on past decisions, especially those that were wrong. It is for this reason that such common psychological practices as rationalizing or "20-20 hindsight" have come into common use. In short, we come to believe that our successes are due to our skill; our failures to bad luck.

What can be done about this? Self-discipline is one help, but a subjective one. Other measures are to record exactly why decisions were made at the time they were made, so that those reasons can be reviewed at a later date when results become known. Another is to involve a third party (objective) observer to comment on the decision-making process both before and after the outcome is known

9. Not keeping track. Just as it is possible to ignore feedback for psychological reasons (decision trap #8), so it is possible to ignore it through simple oversight, or through ignorance of the "missing" feedback. After a decision has been made, we often assume that the results of that decision will become clear automatically. But in fact, the results can become clouded with extra-

neous data, or overlooked. For example, the decision to hire one job candidate over another means that the chance to see how the rejected candidate would perform has been lost.

Obviously, it is not possible to track the outcomes of all decisions, all the time. But three techniques can be used to improve the feedback process:

- Regularly analyze what you've learned recently and how you could be learning more
- Conduct experiments to obtain feedback you could get in no other way
- Learn not just from the outcomes of past decisions but also by studying the processes that produced them

10. Failure to audit the decision process. An auditor is someone who checks the books that the company bookkeepers have written, to make sure that proper procedures have been followed. In a similar vein, the decision-making process should have an auditing step to make sure that decisions, as well as outcomes of decisions, are being handled appropriately.

Ideally, this should be done by an objective, third-party observer. British Petroleum, for example, has had a "Post-Project Appraisal Unit" that evaluates corporate decisionmaking regularly.

But a self-audit can be a help, too. Fill out a sheet listing the amount of time spent on framing, intelligence-gathering, coming to conclusions, and learning from experience. Give yourself college-type grades (A through F, or 4.0-0.0) for how well a decisionmaking exercise avoided the 10 decision traps. Use these audits to learn from your past mistakes, and to keep the decision-making process on track

Edited by Nicholas Basta

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