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Harvard Business Review

JUNE 2011
REPRINT R1106B

THE BIG IDEA

Before You Make That Big Decision...

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The Big Idea

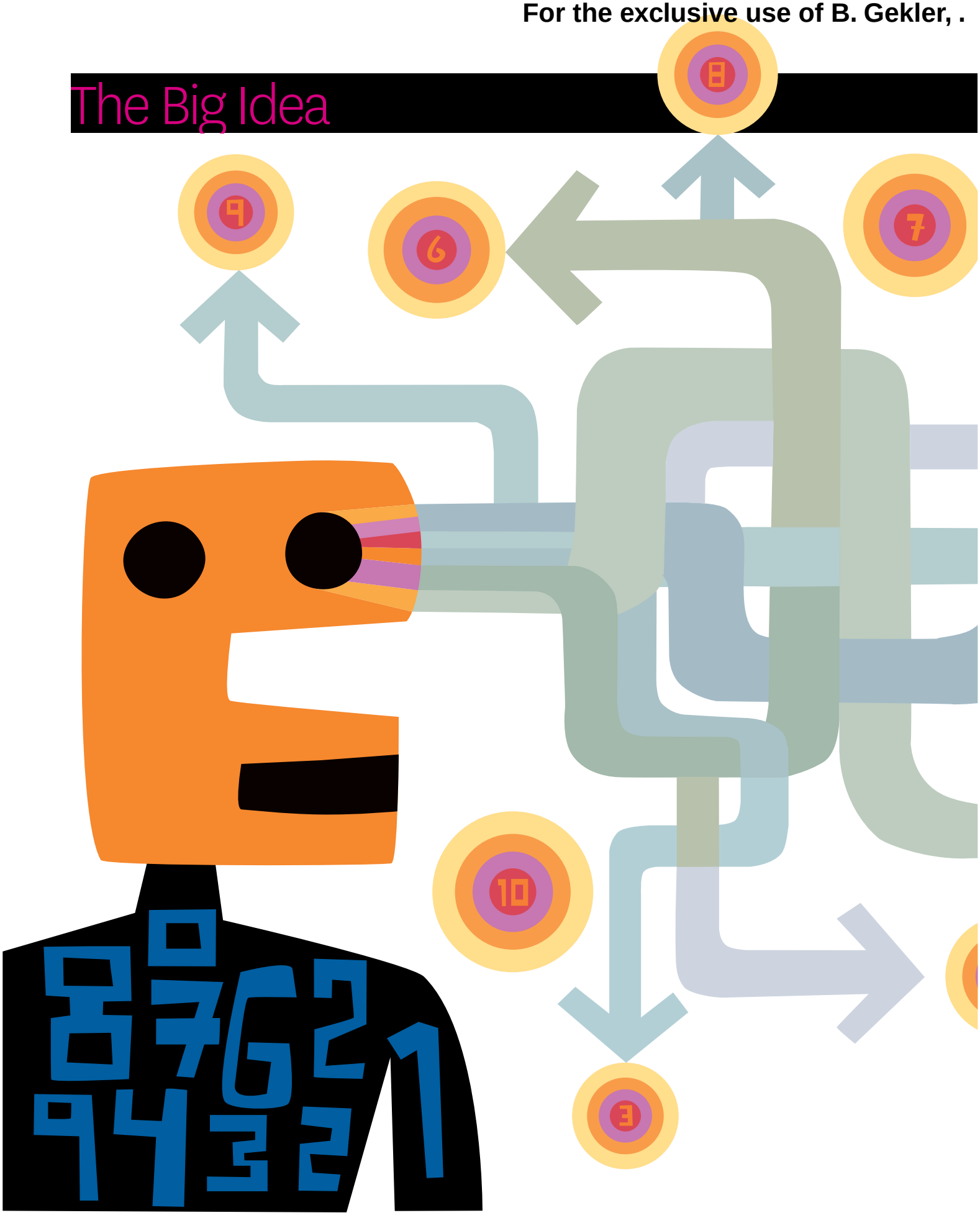


ILLUSTRATION: LASSE SKARBOVIK

Dangerous biases can creep into every strategic choice. Here's how to find them—before they lead you astray. *by Daniel Kahneman, Dan Lovallo, and Olivier Sibony*

Before You Make That Big Decision...

THANKS TO a slew of popular new books, many executives today realize how biases can distort reasoning in business. *Confirmation bias,* for instance, leads people to ignore evidence that contradicts their preconceived notions. *Anchoring* causes them to weigh one piece of information too heavily in making decisions; *loss aversion* makes them too cautious. In our experience, however, awareness of the effects of biases has done little to improve the quality of business decisions at either the individual or the organizational level.

Though there may now be far more talk of biases among managers, talk alone will not eliminate them. But it is possible to take steps to counteract them. A recent McKinsey study of more than 1,000 major business investments showed that when organizations worked at reducing the effect of bias in their decision-making processes, they achieved returns up to seven percentage points higher. (For more on this study, see "The Case for Behavioral Strategy," *McKinsey Quarterly,* March 2010.) Reducing bias makes a difference. In this article, we will describe

THE BEHAVIORAL ECONOMICS OF DECISION MAKING

Daniel Kahneman (the lead author) and Amos Tversky introduced the idea of cognitive biases, and their impact on decision making, in 1974. Their research and ideas were recognized when Kahneman was awarded a Nobel Prize in economics in 2002. These biases, and behavioral psychology generally, have since captured the imagination of business experts. Below are some notable popular books on this topic:

Nudge: Improving Decisions About Health, Wealth, and Happiness
by Richard H. Thaler and Cass R. Sunstein (Caravan, 2008)

Think Twice: Harnessing the Power of Counterintuition
by Michael J. Mauboussin (Harvard Business Review Press, 2009)

Think Again: Why Good Leaders Make Bad Decisions and How to Keep It from Happening to You
by Sydney Finkelstein, Jo Whitehead, and Andrew Campbell (Harvard Business Review Press, 2009)

Predictably Irrational: The Hidden Forces That Shape Our Decisions
by Dan Ariely (HarperCollins, 2008)

Thinking, Fast and Slow
by Daniel Kahneman (Farrar, Straus and Giroux, forthcoming in 2011)

a straightforward way to detect bias and minimize its effects in the most common kind of decision that executives make: reviewing a recommendation from someone else and determining whether to accept it, reject it, or pass it on to the next level.

For most executives, these reviews seem simple enough. First, they need to quickly grasp the relevant facts (getting them from people who know more about the details than they do). Second, they need to figure out if the people making the recommendation are intentionally clouding the facts in some way. And finally, they need to apply their own experience, knowledge, and reasoning to decide whether the recommendation is right.

However, this process is fraught at every stage with the potential for distortions in judgment that result from cognitive biases. Executives can't do much about their own biases, as we shall see. But given the proper tools, they can recognize and neutralize those of their teams. Over time, by using these tools, they will build decision processes that reduce the effect of biases in their organizations. And in doing so, they'll help upgrade the quality of decisions their organizations make.

The Challenge of Avoiding Bias

Let's delve first into the question of why people are incapable of recognizing their own biases.

According to cognitive scientists, there are two modes of thinking, intuitive and reflective. (In recent decades a lot of psychological research has focused on distinctions between them. Richard Thaler and Cass Sunstein popularized it in their book, *Nudge*.) In intuitive, or System One, thinking, impressions, associations, feelings, intentions, and preparations for action flow effortlessly. System One produces a constant representation of the world around us and allows us to do things like walk, avoid obstacles, and contemplate something else all at the same time. We're usually in this mode when we brush our teeth, banter with friends, or play tennis. We're not consciously focusing on how to do those things; we just do them.

In contrast reflective, or System Two, thinking is slow, effortful, and deliberate. This mode is at work when we complete a tax form or learn to drive. Both modes are continuously active, but System Two is typically just monitoring things. It's mobilized when the stakes are high, when we detect an obvious error, or when rule-based reasoning is required. But most of the time, System One determines our thoughts.

Our visual system and associative memory (both important aspects of System One) are designed to produce a single coherent interpretation of what is going on around us. That sense making is highly sensitive to context. Consider the word "bank." For most people reading HBR, it would signify a financial institution. But if the same readers encountered this word in *Field & Stream,* they would probably understand it differently. Context is complicated: In addition to visual cues, memories, and associations, it comprises goals, anxieties, and other inputs. As System One makes sense of those inputs and develops a narrative, it suppresses alternative stories.

Because System One is so good at making up contextual stories and we're not aware of its operations, it can lead us astray. The stories it creates are generally accurate, but there are exceptions. Cognitive biases are one major, well-documented example. An insidious feature of cognitive failures is that we have no way of knowing that they're happening: We almost never catch ourselves in the act of making intuitive errors. Experience doesn't help us recognize them. (By contrast, if we tackle a difficult problem using System Two thinking and fail to solve it, we're uncomfortably aware of that fact.)

This inability to sense that we've made a mistake is the key to understanding why we generally accept our intuitive, effortless thinking at face value. It also explains why, even when we become aware of the existence of biases, we're not excited about eliminating them in ourselves. After all, it's difficult for us to fix errors we can't see.

By extension, this also explains why the management experts writing about cognitive biases have not provided much practical help. Their overarching theme is "forewarned is forearmed." But knowing you have biases is not enough to help you overcome them. You may accept that you have biases, but you cannot eliminate them in yourself.

There is reason for hope, however, when we move from the individual to the collective, from the decision maker to the decision-making process, and from the executive to the organization. As researchers have documented in the realm of operational management, the fact that individuals are not aware of their own biases does not mean that biases can't be neutralized—or at least reduced—at the organizational level.

This is true because most decisions are influenced by many people, and because decision makers can turn their ability to spot biases in others' thinking to

Idea in Brief

When executives make big strategic bets, they typically depend on the judgment of their teams to a significant extent.

The people recommending a course of action will have delved more deeply into the proposal than the executive has time to do.

Inevitably, lapses in judgment creep into the recommending team's decision-making process (because its members fell in love with a deal, say, or are making a faulty comparison to an earlier business case).

This article poses 12 questions that will help executives vet the quality of decisions and think through not just the content of the proposals they review but the biases that may have distorted the reasoning of the people who created them.

their own advantage. We may not be able to control our own intuition, but we can apply rational thought to detect others' faulty intuition and improve *their* judgment. (In other words, we can use our System Two thinking to spot System One errors in the recommendations given to us by others.)

This is precisely what executives are expected to do every time they review recommendations and make a final call. Often they apply a crude, unsystematic adjustment—such as adding a "safety margin" to a forecasted cost—to account for a perceived bias. For the most part, however, decision makers focus on *content* when they review and challenge recommendations. We propose adding a systematic review of the recommendation *process,* one aimed at identifying the biases that may have influenced the people putting forth proposals. The idea is to retrace their steps to determine where intuitive thinking may have steered them off-track.

In the following section, we'll walk you through how to do a process review, drawing on the actual experiences of three corporate executives—Bob, Lisa, and Devesh (not their real names)—who were asked to consider very different kinds of proposals:

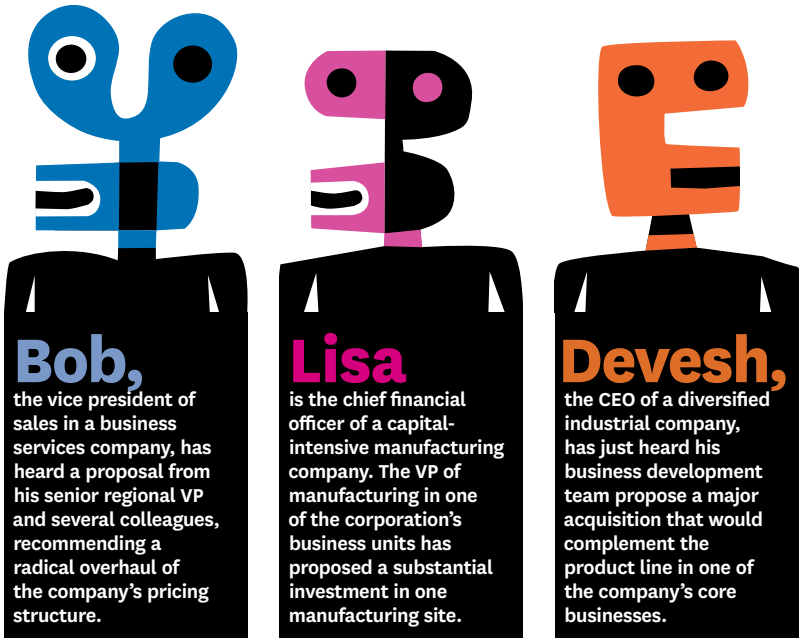
A radical pricing change. Bob is the vice president of sales in a business services company. Recently, his senior regional VP and several colleagues recommended a total overhaul of the company's pricing structure. They argued that the company had lost a number of bids to competitors, as well as some of its best salespeople, because of unsustainable price levels. But making the wrong move could be very costly and perhaps even trigger a price war.

A large capital outlay. Lisa is the chief financial officer of a capital-intensive manufacturing company. The VP of manufacturing in one of the corporation's business units has proposed a substantial investment in one manufacturing site. The request has all the usual components—a revenue forecast, an analysis of return on investment under various scenarios, and so on. But the investment would be a very large one—in a business that has been losing money for some time.

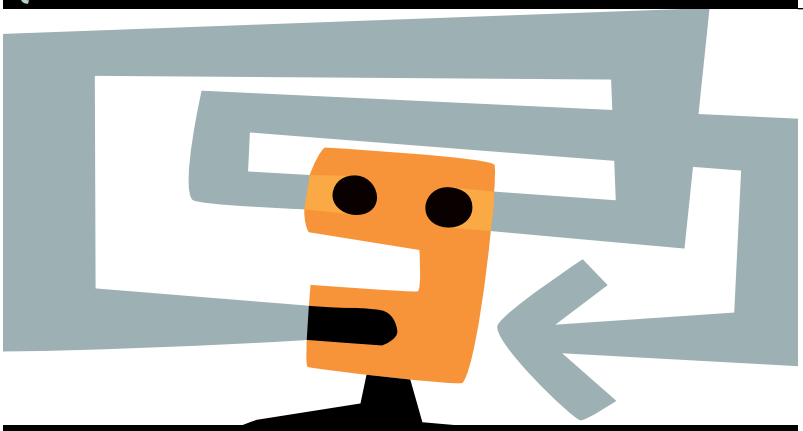
A major acquisition. Devesh is the CEO of a diversified industrial company. His business development team has proposed purchasing a firm whose offerings would complement the product line in one of the company's core businesses. However, the potential deal comes on the heels of several successful but expensive takeovers, and the company's financial structure is stretched.

While we are intentionally describing this review from the perspective of the individual decision makers, organizations can also take steps to embed some of these practices in their broader decision-making

THREE EXECUTIVES FACING VERY DIFFERENT DECISIONS



PRELIMINARY QUESTIONS



Ask yourself

1

CHECK FOR SELF-INTERESTED BIASES

Is there any reason to suspect the team making the recommendation of errors motivated by self-interest?

Review the proposal with extra care, especially for overoptimism.

2

CHECK FOR THE AFFECT HEURISTIC

Has the team fallen in love with its proposal?

Rigorously apply all the quality controls on the checklist.

3

CHECK FOR GROUPTHINK

Were there dissenting opinions within the team?

Were they explored adequately?

Solicit dissenting views, discreetly if necessary.

processes. (For the best ways to approach that, see the sidebar "Improving Decisions Throughout the Organization.")

Decision Quality Control: A Checklist

To help executives vet decisions, we have developed a tool, based on a 12-question checklist, that is intended to unearth defects in thinking—in other words, the cognitive biases of the teams making recommendations. The questions fall into three categories: questions the decision makers should ask themselves, questions they should use to challenge the people proposing a course of action, and questions aimed at evaluating the proposal. It's important to note that, because you can't recognize your own biases, the individuals using this quality screen should be completely independent from the teams making the recommendations.

Questions that decision makers should ask themselves

1. Is there any reason to suspect *motivated errors*, or errors driven by the self-interest of the recommending team? Decision makers should never directly ask the people making the proposal this. After all, it's nearly impossible to do so without appearing to question their diligence and even their integrity, and that conversation cannot end well.

The issue here is not just intentional deception. People do sometimes lie deliberately, of course, but self-deception and rationalization are more common problems. Research has shown that professionals who sincerely believe that their decisions are "not for sale" (such as physicians) are still biased in the direction of their own interests.

Bob, for instance, should recognize that lowering prices to respond to competitive pressures will have a material impact on the commissions of his sales team (especially if bonuses are based on revenues, not margins). Devesh should wonder whether the team recommending the acquisition would expect to run the acquired company and therefore might be influenced by "empire building" motives.

Of course, a preference for a particular outcome is built into every recommendation. Decision makers need to assess not whether there's a risk of motivated error but whether it is significant. A proposal from a set of individuals who stand to gain more than usual from the outcome—either in financial terms or, more frequently, in terms of organizational power, reputation, or career options—needs especially careful quality control. Reviewers also should watch out for pernicious sets of options that include only one realistic alternative—the one that the recommending team prefers. In such cases, decision makers will have to pay even more attention to the remaining questions on this checklist, particularly those covering optimistic biases.

2. Have the people making the recommendation fallen in love with it? All of us are subject to the *affect heuristic:* When evaluating something we like, we tend to minimize its risks and costs and exaggerate its benefits; when assessing something we dislike, we do the opposite. Executives often observe this phenomenon in decisions with a strong emotional component, such as those concerning employees, brands, or locations.

This question is also best left unspoken but is usually easy to answer. It is likely that Devesh will easily sense whether the members of the deal team have maintained a neutral perspective regarding the acquisition. If they have become emotional about it, the remedy, again, is to examine with extra thoroughness all the components of the recommendation and all the biases that may have affected the people making it.

3. Were there dissenting opinions within the recommending team? If so, were they explored adequately? In many corporate cultures, a team presenting a recommendation to a higher echelon will claim to be unanimous. The unanimity is sometimes genuine, but it could be sham unity imposed by the team's leader or a case of groupthink—the tendency of groups to minimize conflict by converging on a decision because it appears to be gathering support. Groupthink is especially likely if there is little diversity of background and viewpoint within a team. Lisa, for instance, should worry if no one in the manufacturing team that is proposing the large investment has voiced any concerns or disagreement.

Regardless of its cause, an absence of dissent in a team addressing a complex problem should sound an alarm. In the long run, a senior executive should strive to create a climate where substantive disagreements are seen as a productive part of the decision process (and resolved objectively), rather than as a sign of conflict between individuals (and suppressed). In the short run, if faced with a recommendation in which dissent clearly was stifled, a decision maker has few options. Because asking another group of people to generate additional options is often impractical, the best choice may be to discreetly solicit dissenting views from members of the recommending team, perhaps through private meetings. And the opinions of those who braved the pressure for conformity in the decision-making process deserve special attention.

Questions that decision makers should ask the team making recommendations

4. Could the diagnosis of the situation be overly influenced by salient analogies? Many recommendations refer to a past success story, which the decision maker is encouraged to repeat by approving the proposal. The business development team advocating the acquisition to Devesh took this approach, using the example of a recent successful deal it had completed to bolster its case. The danger, of course, is that the analogy may be less relevant to the current deal than it appears. Furthermore, the use of just one or a few analogies almost always leads to faulty inferences.

People do sometimes lie deliberately, but self-deception and rationalization are more common problems.

The decision maker who suspects that an analogy to an especially memorable event has unduly influenced a team's judgment (a type of cognitive flaw known as *saliency bias*) will want the team to explore alternative diagnoses. This can be done by asking for more analogies and a rigorous analysis of how comparable examples really are. (For more details on the technique for doing this, called *reference class forecasting,* see "Delusions of Success: How Optimism Undermines Executives' Decisions," by Dan Lovallo and Daniel Kahneman, HBR July 2003.) More informally, a decision maker can simply prompt the team to use a broader set of comparisons. Devesh could ask for descriptions of five recent deals, other than the recently acquired company, that were somewhat similar to the one being considered.

5. Have credible alternatives been considered? In a good decision process, other alternatives are fully evaluated in an objective and fact-based way. Yet when trying to solve a problem, both individuals and groups are prone to generating one plausible hypothesis and then seeking only evidence that supports it.

A good practice is to insist that people submit at least one or two alternatives to the main recommendation and explain their pros and cons. A decision maker should ask: What alternatives did you consider? At what stage were they discarded? Did you actively look for information that would disprove your main hypothesis or only for the confirming evidence described in your final recommendation?

Some proposals feature a perfunctory list of "risks and mitigating actions" or a set of implausible alternatives that make the recommendation look appealing by contrast. The challenge is to encourage a *genuine* admission of uncertainty and a sincere recognition of multiple options.

Bob should encourage his sales team to evaluate other options, such as a targeted marketing program aimed at the customer segments in which the company has a competitive advantage.

CHALLENGE QUESTIONS

Ask the recommenders

4

CHECK FOR SALIENCY BIAS

Could the diagnosis be overly influenced by an analogy to a memorable success?

Ask for more analogies, and rigorously analyze their similarity to the current situation.

5

CHECK FOR CONFIRMATION BIAS

Are credible alternatives included along with the recommendation?

Request additional options.

6

CHECK FOR AVAILABILITY BIAS

If you had to make this decision again in a year's time, what information would you want, and can you get more of it now?

Use checklists of the data needed for each kind of decision.

7

CHECK FOR ANCHORING BIAS

Do you know where the numbers came from? Can there be
...unsubstantiated numbers?
...extrapolation from history?
...a motivation to use a certain anchor?

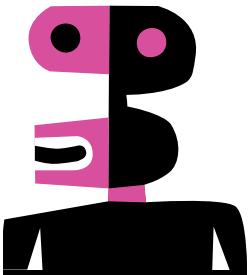
Reanchor with figures generated by other models or benchmarks, and request new analysis.

8

CHECK FOR HALO EFFECT

Is the team assuming that a person, organization, or approach that is successful in one area will be just as successful in another?

Eliminate false inferences, and ask the team to seek additional comparable examples.



Lisa should have her team look at the proposed capacity improvement the way an incoming CEO might, asking: If I personally hadn't decided to build this plant in the first place, would I invest in expanding it?

In his review, Bob should encourage his sales colleagues to recognize the unknowns surrounding their proposal. The team may eventually admit that competitors' reactions to an across-the-board price cut are unpredictable. It should then be willing to evaluate other options, such as a targeted marketing program aimed at the customer segments in which Bob's company has a competitive advantage.

6. If you had to make this decision again in a year, what information would you want, and can you get more of it now? One challenge executives face when reviewing a recommendation is the WYSIATI assumption: What you see is all there is. Because our intuitive mind constructs a coherent narrative based on the evidence we have, making up for holes in it, we tend to overlook what is missing. Devesh, for instance, found the acquisition proposal compelling until he realized he had not seen a legal due diligence on the target company's patent portfolio—perhaps not a major issue if the acquisition were being made primarily to gain new customers but a critical question when the goal was to extend the product line.

To force yourself to examine the adequacy of the data, Harvard Business School professor Max Bazerman suggests asking the question above. In many cases, data are unavailable. But in some cases, useful information will be uncovered.

Checklists that specify what information is relevant to a certain type of decision are also helpful. Devesh, for his part, could tap his experience reviewing acquisition proposals and develop lists of data that should be collected for each different kind of deal his company does, such as acquiring new technology or buying access to new customers.

7. Do you know where the numbers came from? A focused examination of the key numbers underlying the proposal will help decision makers see through any anchoring bias. Questions to ask include: Which numbers in this plan are facts and which are estimates? Were these estimates developed by adjusting from another number? Who put the first number on the table?

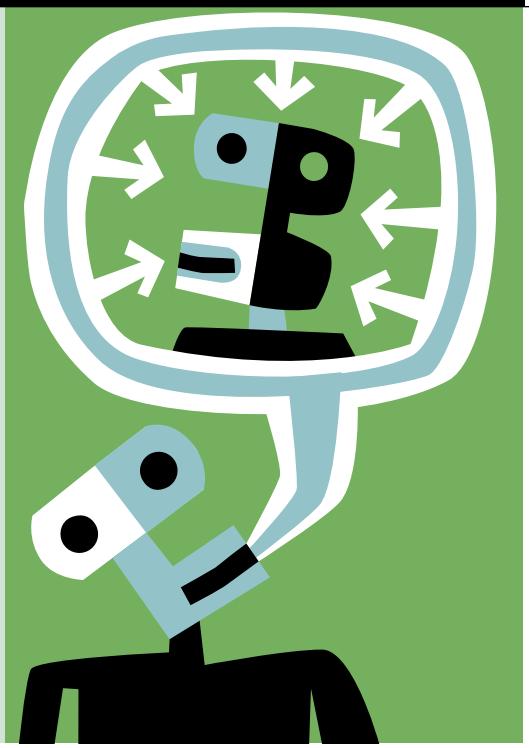
Three different types of anchoring bias are common in business decisions. In the classic case, initial estimates, which are often best guesses, are used, and their accuracy is not challenged. The team making the proposal to Lisa, for instance, used a guesstimate on an important cost component of the capital investment project. More frequently, estimates are based on extrapolations from history, as they were when Devesh's team predicted the target company's sales by drawing a straight line. This, too, is a form of anchoring bias; one cannot always assume trends will continue. Finally, some anchors are clearly deliberate, such as when a buyer sets a low floor in a price negotiation. The trap of anchors is that people always believe they can disregard them, but in fact they cannot. Judges who are asked to

9

CHECK FOR SUNK-COST FALLACY, ENDOWMENT EFFECT

Are the recommenders overly attached to a history of past decisions?

Consider the issue as if you were a new CEO.



roll a set of dice before making a (fortunately simulated) sentencing decision will of course deny that the dice influenced them, but analysis of their decisions shows that they did.

When a recommendation appears to be anchored by an initial reference and the number in question has a material impact, the decision maker should require the team behind the proposal to adjust its estimates after some reanchoring. If Lisa discovers that the investment budget she was asked to approve was derived from the costing of an earlier project, she can reanchor the team with a number she arrives at in a completely different way, such as a linear model based on investment projects carried out in other divisions, or competitive benchmarks. The aim is neither to arrive directly at a different number nor to slavishly "copy and paste" the practices of benchmarked competitors, but to force the team to consider its assumptions in another light.

8. Can you see a *halo effect*? This effect is at work when we see a story as simpler and more emotionally coherent than it really is. As Phil Rosenzweig shows in the book *The Halo Effect,* it causes us to attribute the successes and failures of firms to the personalities of their leaders. It may have led Devesh's team to link the success of the acquisition target to its senior management and assume that its recent outperformance would continue as long as those managers were still in place.

Companies deemed "excellent" are frequently circled by halos. Once an expert brands them in this way, people tend to assume that all their practices must be exemplary. In making its case for its capital investment, Lisa's team, for instance, pointed to a similar project undertaken by a highly admired company in another cyclical industry. According to the proposal, that company had "doubled down" on a moderately successful manufacturing investment, which paid off when the economy rebounded and the extra capacity was fully used.

Naturally, Lisa should ask whether the inference is justified. Does the team making the recommendation have specific information regarding the other company's decision, or is the team making assumptions based on the company's overall reputation? If the investment was indeed a success, how much of that success is attributable to chance events such as lucky timing? And is the situation of the other company truly similar to the situation of Lisa's company?

Such difficult questions are rarely asked, in part because it may seem off-base to take apart an outside comparison that is made in passing. Yet if Lisa simply tries to disregard the comparison, she will still be left with a vague, but hard to dispel, positive impression of the recommendation. A good and relatively simple practice is to first assess the relevance of the comparison ("What about this case is comparable with ours?") and then ask the people making it to propose other examples from less successful companies ("What other companies in our industry invested in a declining business, and how did it turn out for them?").

9. Are the people making the recommendation overly attached to past decisions? Companies do not start from scratch every day. Their history, and what they learn from it, matter. But history leads us astray when we evaluate options in reference to a past starting point instead of the future. The most visible consequence is the *sunk-cost fallacy*: When considering new investments, we should disregard past expenditures that don't affect future costs or revenues, but we don't. Note that Lisa's team was evaluating a capacity improvement in a product line that was struggling financially—partly because it was subscale, the team argued. Lisa should ask the team to look at this investment the way an incoming CEO might: If I personally hadn't decided to build the plant in the first place, would I invest in adding capacity?

Questions focused on evaluating the proposal

10. Is the base case overly optimistic? Most recommendations contain forecasts, which are notoriously prone to excessive optimism. One contributing factor is overconfidence, which could, say, lead Devesh's team to underestimate the challenge of integrating the acquired company and capturing synergies. Groups with a successful track record are more prone to this bias than others, so Devesh should be especially careful if the business development team has been on a winning streak.

Another factor frequently at work here is the *planning fallacy*. The planning fallacy arises from "inside view" thinking, which focuses exclusively on the case at hand and ignores the history of similar projects. This is like trying to divine the future of a company by considering only its plans and the obstacles it anticipates. An "outside view" of forecasting, in contrast, is statistical in nature and mainly uses the generalizable aspects of a broad set of problems to make predictions. Lisa should keep this in mind when reviewing her team's proposal. When drawing up a timeline for the completion of the proposed plant, did the team use a top-down (outside-view) comparison with similar projects, or did it estimate the time required for each step and add it up—a bottom-up (inside-view) approach that is likely to result in underestimates?

A third factor is the failure to anticipate how competitors will respond to a decision. For instance, in proposing price cuts, Bob's team did not account for the predictable reaction of the company's competitors: starting a price war.

All these biases are exacerbated in most organizations by the inevitable interplay (and frequent confusion) between forecasts and estimates on the one hand, and plans or targets on the other. Forecasts should be accurate, whereas targets should be ambitious. The two sets of numbers should not be confused by senior leadership.

Correcting for optimistic biases is difficult, and asking teams to revise their estimates will not suffice. The decision maker must take the lead by adopting an outside view, as opposed to the inside view of the people making proposals.

Several techniques help promote an outside view. Lisa could construct a list of several similar investment projects and ask her team to look at how long those projects took to complete, thus removing from the equation all inside information on the project at hand. Sometimes, removing what appears to be valuable information yields better estimates. In some situations decision makers might also put themselves in the shoes of their competitors. The use of "war games" is a powerful antidote to the lack of thinking about competitors' reactions to proposed moves.

11. Is the worst case bad enough? Many companies, when making important decisions, ask strategy teams to propose a range of scenarios, or at least

Improving Decisions Throughout the Organization

To critique recommendations effectively and in a sustainable way, you need to make quality control more than an individual effort.

Organizations pursue this objective in various ways, but good approaches have three principles in common. First, they adopt the right mind-set. The goal is not to create bureaucratic procedures or turn decision quality control into another element of "compliance" that can be delegated to a risk assessment unit. It's to stimulate discussion and debate. To accomplish this, organizations must tolerate and even encourage disagreements (as long as they are based on facts and not personal).

Second, they rotate the people in charge, rather than rely on one executive to be the quality policeman. Many companies, at least in theory, expect a functional leader such as a CFO or a chief strategy officer to play the role of challenger. But an insider whose primary job is to critique others loses political capital quickly. The use of a quality checklist may reduce this downside, as the challenger will be seen as "only playing by the rules," but high-quality debate is still unlikely.

Third, they inject a diversity of views and a mix of skills into the process. Some firms form ad hoc critique teams, asking outsiders or employees rotating in from other divisions to review plans. One company calls them "provocateurs" and makes playing this role a stage of leadership development. Another, as part of its strategic planning, systematically organizes critiques and brings in outside experts to do them. Both companies have explicitly thought about their decision processes, particularly those involving strategic plans, and invested effort in honing them. They have made their decision processes a source of competitive advantage.

a best and a worst case. Unfortunately, the worst case is rarely bad enough. A decision maker should ask: Where did the worst case come from? How sensitive is it to our competitors' responses? What could happen that we have not thought of?

The acquisition proposal Devesh is reviewing hinges on the target's sales forecast, and like most sales forecasts in due diligence reports, it follows a steep, straight, upward line. Devesh may ask his team to prepare a range of scenarios reflecting the merger's risks, but the team is likely to miss risks it has not experienced yet.

A useful technique in such situations is the "premortem," pioneered by psychologist Gary Klein. Participants project themselves into the future, imagine the worst has already happened, and make up a story about how it happened. Devesh's team could consider such scenarios as the departure of key executives who do not fit into the acquiring company's culture, technical problems with the target's key product lines, and insufficient resources for integration. It would then be able to consider whether to mitigate those risks or reassess the proposal.

12. Is the recommending team overly cautious? On the flip side, excessive conservatism is a source of less visible but serious chronic underperformance in organizations. Many executives complain that their teams' plans aren't creative or ambitious enough.

This issue is hard to address for two reasons. First and most important, the people making recommendations are subject to loss aversion: When they contemplate risky decisions, their wish to avoid losses is stronger than their desire for gains. No individual or team wants to be responsible for a failed project. Second, the fact that very few companies make explicit choices about what level of risk they will assume only exacerbates individual managers' loss aversion.

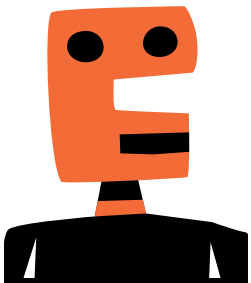
This helps explain why Lisa's colleagues had ruled out a new technology providing an alternative to the proposed investment: They deemed it too risky. To get her team to explore this option, she could provide assurances or (perhaps more credibly) explicitly share responsibility for the risk. When launching new ventures, many companies tackle this problem by creating separate organizational units with different objectives and budgets. But dealing with excessive conservatism in "ordinary" operations remains a challenge.

Implementing Quality Control Over Decisions

These 12 questions should be helpful to anyone who relies substantially on others' evaluations to make a final decision. But there's a time and place to ask them, and there are ways to make them part and parcel of your organization's decision-making processes.

When to use the checklist. This approach is not designed for routine decisions that an executive formally rubber-stamps. Lisa, the CFO, will want to use it for major capital expenditures but not her department's operating budget. The sweet spot for quality control is decisions that are both important and recurring, and so justify a formal process. Approving an R&D project, deciding on a large capital expenditure, and making a midsize acquisition of a company are all examples of "quality controllable" decisions.

Who should conduct the review. As we mentioned earlier, the very idea of quality control also assumes a real separation between the decision maker



Devesh should ask his M&A team to prepare a worst-case scenario that reflects the merger's risks, such as the departure of key executives, technical problems with the acquisition's products, and integration problems.

Executives sometimes covertly influence teams' proposals, perhaps by choosing team members whose opinions are already known.

and the team making the recommendation. In many instances an executive will overtly or covertly influence a team's proposal, perhaps by picking team members whose opinions are already known, making his or her preferences clear in advance, or signaling opinions during the recommendation phase. If that is the case, the decision maker becomes a de facto member of the recommendation team and can no longer judge the quality of the proposal because his or her own biases have influenced it.

A clear and common sign that this has happened is overlap between the decision and action stages. If, at the time of a decision, steps have already been taken to implement it, the executive making the final call has probably communicated a preference for the outcome being recommended.

Enforcing discipline. Last, executives need to be prepared to be systematic—something that not all corporate cultures welcome. As Atul Gawande points out in *The Checklist Manifesto,* because each item on a checklist tends to seem sensible and unsurprising, it is tempting to use checklists partially and selectively. Doctors who adopted the World Health Organization's Surgical Safety Checklist knew that measures as simple as checking the patient's medication allergies made sense. But only by going through the checklist completely, systematically, and routinely did they achieve results—a spectacular reduction in complications and mortality. Using checklists is a matter of discipline, not genius. Partial adherence may be a recipe for total failure.

Costs and benefits. Is applying quality control to decisions a good investment of effort? Time-pressed executives do not want to delay action, and few corporations are prepared to devote special resources to a quality control exercise.

But in the end, Bob, Lisa, and Devesh all did, and averted serious problems as a result. Bob resisted the temptation to implement the price cut his team was clamoring for at the risk of destroying profitability and triggering a price war. Instead, he challenged the team to propose an alternative, and eventually successful, marketing plan. Lisa refused to approve an investment that, as she discovered, aimed to justify and prop up earlier sunk-cost investments in the same business. Her team later proposed an investment in a new technology that would leapfrog the competition. Finally, Devesh signed off on the deal his team was proposing, but not before additional due diligence had uncovered issues that led to a significant reduction in the acquisition price.

The real challenge for executives who want to implement decision quality control is not time or cost. It is the need to build awareness that even highly experienced, superbly competent, and well-intentioned managers are fallible. Organizations need to realize that a disciplined decision-making process, not individual genius, is the key to a sound strategy. And they will have to create a culture of open debate in which such processes can flourish.

HBR Reprint R1106B

"Any recommendations besides your Nana?"

CARTOON: PAUL KALES

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