Special Issue on Behavioral Strategy

BerkeleyHaas
Haas School of Business
University of California Berkeley

Making Strategy Hot

Mark P. Healey[1] and Gerard P. Hodgkinson[1]

California Management Review
2017, Vol. 59(3) 109–134

Reprints and permissions:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/0008125617712258
journals.sagepub.com/home/cmr
SAGE

SUMMARY

It is often said that being a good strategist requires keeping a cool head. However, eradicating emotional influences from the strategy process is not only infeasible, it is also undesirable. Drawing on the latest advances in the science of emotion, this article explains how emotion regulation is an essential skill that executives must cultivate to ensure that their enterprises are able to adapt effectively in these turbulent times. The authors offer practical steps to help executives manage better the emotional dynamics of strategizing, which left unchecked can derail even the most carefully orchestrated of strategy processes.

KEYWORDS: strategic management, decision making, psychology, behavioral strategy, behavioral economics, behavioral science

Consider the following (not-so-hypothetical) scenario. You are the Chief Executive of Global Reach, a major supplier of specialist papers and inks to the newspaper industry. Having built your business up from scratch over a 30-year period, your organization has become a global market leader. As you look back over your career to date, you feel an immense sense of pride in all that you and your employees have accomplished. Having begun the company with just five staff, operating in a spare room at the back of your (then) home, you now employ over 2,000 people, distributed across five continents. Reflecting its dominant position, the company has enjoyed healthy profit margins for more than two decades, which you have reinvested back into the business on a continuous basis, thereby safeguarding its technical superiority in the marketplace. Over the past five years, however, those profit margins have been falling dramatically. In the wake of the sudden shift from print to electronic media, demand for your company's products and services has fallen markedly. Several market analysts predict that if the present trend continues, your business will no longer be sustainable. Aged 52, you feel it is far too early to retire, and you wouldn't want to anyway. You also feel a deep sense of loyalty and commitment to your employees, many of whom have only ever worked for one organization—yours! As you reflect more deeply, you begin to wonder if the anxiety you are experiencing is misplaced. After all, your company has faced significant challenges in the past, and it has always come out on

[1]Alliance Manchester Business School, The University of Manchester, Manchester, UK

top; so why should this situation be any different? The more you reflect on the past successes, the more inclined you are to disregard the pundits. Re-energized by your reflections, you begin to entertain the possibility that expanding the business into developing countries is an obvious way to offset your company's present difficulties.

The foremost challenge of strategic management is ensuring the enterprise's continuing fitness for purpose; in other words, its ability to adapt to the shifting contingencies prevailing. As our opening vignette illustrates, meeting this challenge demands that executives must develop the managerial dynamic capability to manage emotions, sometimes reining in particular feelings, at other times fostering them. In this article, we explain how recent advances in the science of emotion can provide much needed insights for meeting this fundamental imperative.

Dynamic capabilities have been viewed by many as an important device enabling enterprises to move with the times. But, what are dynamic capabilities? According to California Berkeley professor David Teece, they are the enterprise-level "difficult-to-replicate enterprise capabilities required to adapt to changing customer and technological opportunities. They also embrace the enterprise's capacity to shape the ecosystem it occupies, develop new products and processes, and design and implement viable business models."[1] In what has become one of the most influential frameworks for analyzing dynamic capabilities, Teece has outlined three essential capabilities that are vital for ensuring the enterprise's longer term viability, namely, sensing, seizing, and transforming. Sensing requires searching and exploring markets and technologies both local to and distant from the organization to spot opportunities to be explored and threats to be avoided. Seizing, in contrast, necessitates making high-quality, interdependent investment decisions, such as those involved in selecting product architectures and business models, with a view to exploiting the opportunities and mitigating the threats. The final capability, reconfiguring, entails continuously transforming the firm in response to market and technological changes, such that it retains its competitive edge.

Each of these capabilities poses its own psychological challenges for the individuals whose job it is to ensure that the enterprise adapts to technological and market changes. Fortunately, behavioral strategy research has done much to identify these challenges.[2] The primary psychological challenge of sensing is to ensure that managers accommodate or assimilate new information concerning emerging technologies, changing customer needs, and/or new industry developments so that the firm embraces opportunities rather than avoids them. The primary psychological challenge of seizing is to make judicious, forward-looking resource allocation decisions, borne of high-quality judgments, to ensure the firm's assets meet its requirements today, tomorrow, and well into the future. The primary psychological challenge of transforming is securing the committed engagement of stakeholders when seeking to reconfigure the enterprise by managing carefully the fundamental personal and social identity concerns that inevitably come to the fore, potentially threatening their fundamental sense of self.

Meeting each of these psychological challenges entails freeing people from the shackles of beliefs and behaviors that have worked well in the past but which are no longer appropriate. Until very recently, the prescriptions offered by strategy scholars for this purpose were focused almost exclusively on augmenting logical reasoning and effortful deliberation of strategic information in the hope that this would lead decision makers to revise their assumptions, beliefs, and choices, as necessary.[3] However, our research suggests that this general approach is insufficient as a basis for addressing the psychological challenges of sensing, seizing, and transforming because, at root, these challenges are emotional as well as cognitive in nature.[4] Hence, bringing emotion into the picture provides a more complete and more accurate view of the psychological foundations of strategic adaptation. This view also highlights the need for tools and techniques that target the emotional mechanisms of strategic adaptation. In this article, we illustrate how, by using these tools and techniques, executives stand a greater chance of improving their organizations' prospects of successful adaptation.

In highlighting the significance of emotion as both a barrier to and enabler of strategic adaptation, we suspect that this article will divide opinion, not least because people are comfortable to varying degrees in their acceptance of and ability to deal with emotions in all aspects of their lives. Nevertheless, we hope that all readers will approach our ideas in a spirit of openness. The toolkit we provide is intended to help executives—operating both as individuals and in the context of team working—attend to, understand, and proactively manage the emotional dynamics accompanying their organization's strategy making. Of course, these skills are not substitutes for substantive industry knowledge or market insight. However, by attending to the emotional dynamics of strategizing, while paying close attention to the quality and extent of substantive information bearing upon their decisions, executives stand better equipped to lead their organizations through turbulent times.

Research Base

The advice we outline is based on research we have conducted over the past decade that applies major developments in the science of emotion to strategic management theory and practice.[5] The goal of this research has been to advance understanding of the psychological mechanisms that variously promote and undermine the ability of individuals, groups, organizations, and organizational collectives to become dynamically capable.[6] In this article, we focus on the practical challenges associated with managing the emotional dynamics of sensing, seizing, and transforming. We bolster our ideas by drawing on recent research in cognitive and social psychology and neuroeconomics concerning the role of emotion in decision making and how emotion can be regulated effectively.

In recent years, an emotional revolution has transformed understanding of how decisions actually happen.[7] Behavioral neuroscientists have discovered that the brain's emotion centers play a critical role in even the most seemingly trivial of everyday decisions.[8] Not surprisingly, therefore, when personal and financial stakes are high, the brain is awash with emotions.[9] When emotions kick in, they arrive fast, infuse (and sometimes overwhelm) reasoning, and can influence behavior in ways not evident to the decision maker.[10] Hence, being a skilled strategist requires a deeper understanding of how to harness and control emotions. In our experience, however, many organizations go about formulating their strategies and implementing them as if emotions do not exist or, at best, can be easily suppressed or side-lined.[11]

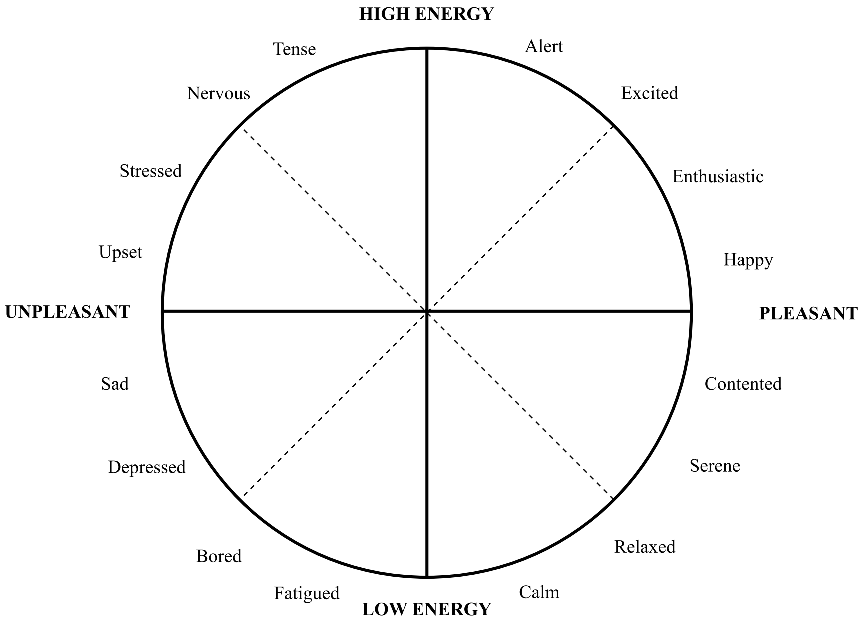
Psychologists maintain that emotions are more often adaptive than maladaptive; that is, emotions provide important signals regarding the degree of fit between people and their environments, focus their attention, and enable them to react quickly to the situation at hand.[12] In organizations, emotions matter because they shape what information decision makers attend to and how they use it. Illustrating this principle, research shows that whether or not decision makers take on board new information or bury their heads in the sand depends on how that information makes them feel.[13] For instance, when people find information on a new technological development uncomfortable, they will try to avoid that information rather than learn from it. How decision makers react to opportunities and threats—and, indeed, whether they interpret particular issues and events as opportunities or threats in the first place—depends on whether they feel in a positive or negative state at the time of their deliberations.[14] Entrepreneurs who feel more positively think more flexibly and their businesses are more innovative.[15] Feeling positive helps teams to generate novel ideas, but teams that temper positivity with a degree of negative mood are more adept at selecting the most useful ideas, because a negative mood facilitates critical thinking.[16] There is also evidence demonstrating that the emotional characteristics of executives influence whether their firm adopts a conformist or nonconformist strategy, thereby shaping its performance.[17] In sum, although they are often depicted as enemies, a considerable volume of evidence shows that the highest quality decisions emerge when reason and emotion work together.

Of course, emotions are not only individually based. Individuals' emotions can influence feelings and behaviors at a collective level. For instance, emotions such as optimism and anxiety can spread across individuals who are working together in a team, an effect known as "emotional contagion."[18] Shared emotions can also create more complex dynamics. For instance, changing a firm's strategic direction may frighten half of its middle managers but also excite the other half, with members of each subgroup reinforcing each other's feelings, creating intergroup dynamics that impede the firm's ability to implement change.[19] Additional evidence suggests that executives and their senior teams can, through their emotional styles and behaviors, create an emotional climate that is inimical to strategic adaptation.[20]

Managing the Emotional Dynamics of Strategic Adaptation

Managing the emotional dynamics of strategic adaptation requires tools for understanding emotion and for regulating its effects. One such tool is the well-validated model of emotions known as the "affective circumplex," so called because it organizes emotions into a circular structure, centered on two major

FIGURE 1. The circumplex model of affect.



Source: Adapted from L. Feldman Barrett and J. A. Russell, "Independence and Bipolarity in the Structure of Current Affect," *Journal of Personality and Social Psychology*, 74/4 (1998): 967-984. © 1998 by American Psychological Association. Adapted with permission.

dimensions.[21] As shown in Figure 1, the first dimension reflects the degree of energy (low vs. high energy) evoked by particular emotions. The second dimension, in contrast, differentiates emotions in terms of their degree of pleasantness (pleasant vs. unpleasant). Within this model, discrete emotion states are located variously in each of the four quadrants. Thus, for example, "relaxed" and "calm" are depicted as low-energy/pleasant emotions, whereas "stressed" and "nervous" are depicted as high-energy/unpleasant emotions. Generally speaking, emotions located in the upper left- and upper right-hand quadrants of Figure 1 engage decision makers actively in processing information from their environments, whereas emotions located in the lower quadrants are associated with withdrawal and low engagement. Typically, positive emotions are associated with holistic and creative thinking, whereas negative emotions are associated with a more critical and analytical approach to information processing.[22]

It is important to recognize that positive and negative emotions alike can variously aid and hinder sensing, seizing, and transforming.[23] Therefore, the ability to *regulate* emotions is an important but often overlooked lever for enhancing strategic adaptation.[24] Emotion regulation involves controlling which emotions are experienced, when they are experienced, and how they are experienced and used.[25] Emotion regulation is closely related to the more familiar capabilities of self-control and willpower.[26] It entails striking a balance between not letting emotions overwhelm reasoning and not suppressing or avoiding feelings to the point that vital sources of information and motivation are missed.

Psychological research demonstrates that emotions can be regulated both downward and upward.[27] Down-regulation involves dampening down emotional experiences in order to reduce their adverse effects; for instance, managers might downplay the importance of a decision to reduce stress. Reflecting this principle, when John Scott, the son of C. P. Scott, the founder of the British newspaper *The Guardian*, decided to place the business in a not-for-profit trust in perpetuity, it was said that "when he made up his mind to divest himself of all beneficial interest, he did so with as little display of emotion as if he has been solving an algebraical problem."[28]

Up-regulation, in contrast, entails increasing the intensity of emotional experience, in an attempt to stimulate adaptive thinking and behavior. As the economist John Maynard Keynes once said, "our decisions to do something positive . . . can only be taken as a result of animal spirits—of a spontaneous urge to action rather than inaction, and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities."[29] Whereas strategy scholars have typically suggested that executives should avoid "hot" situations when strategizing,[30] we suggest that both up- and down-regulation have an important role to play in strategic adaptation.

Of course, in many work situations, executives and employees alike come under pressure to display emotions that run counter to those they are actually experiencing. However, impression management techniques that involve suppressing emotions come at a cost; they are mentally draining and distracting and can ultimately lead to emotional exhaustion. There are alternative emotion regulation techniques—such as changing the situation or changing the meaning of an issue to alter its emotional significance—that enable decision makers to regulate emotion without incurring such a high toll.[31]

In the sections that follow, we highlight the potential benefits and dangers associated with occupying particular regions of the affective circumplex in relation to sensing, seizing, and transforming. We illustrate how this model can be used as an orienting device to help executives maintain what we call "emotional situation awareness." Emotional situation awareness involves developing an understanding of how people are feeling about the issues at hand and how those sentiments are affecting their responsiveness. To help executives gain such awareness, we have developed a series of checklists that are designed to help identify emotions and their potential effects, both in the self and in others. Executives should ask which particular emotions are predominating in the particular context at hand and whether or not they are appropriate, given what the firm is trying to accomplish at that point in time.[32] Gaining emotional situational awareness enables skilled executives to know:

- when up-and-down regulation of emotions is in order (e.g., to heighten excitement and enthusiasm, in an attempt to draw colleagues toward a particular prospect, or to heighten tension and stress, with a view to fostering a more critical appreciation of the situation);

- when a more fundamental switching of emotional gears is required (e.g., from high-energy unpleasant to low-energy pleasant emotions or from high-energy pleasant emotions to high-energy unpleasant emotions); and
- when to attend to diverse or convergent emotions among team members.

To guide these interventions, below we provide practical illustrations of how executives can utilize the emotion regulation techniques we are advocating.

In sum, there is a plethora of evidence demonstrating that people can (with a high degree of accuracy) identify their own emotions and those of others. We recognize that this is not the same as being able to diagnose accurately the "true" drivers of one's reactions. However, we are not advocating emotional reflection for its own sake. Rather, we are advocating that executives should weigh carefully their emotional reactions alongside all other forms of evidence that are being brought to bear on the situation at hand. It is also important to note that, almost invariably, strategy making is a collective endeavor. Reflecting this reality, the techniques we are advocating will be employed typically to enable teams of executives to cross-check how their emotional reactions to particular strategic issues vary and/or converge. In the event of marked variations, team members should ask themselves why they are experiencing such divergence. Conversely, when faced with strong emotional consensus, they should ask what they might be overlooking. With these important caveats in mind, executives can use up-regulation and down-regulation strategies to try to nudge people around the quadrants of the circumplex, as an aid to sensing, seizing, and transforming.

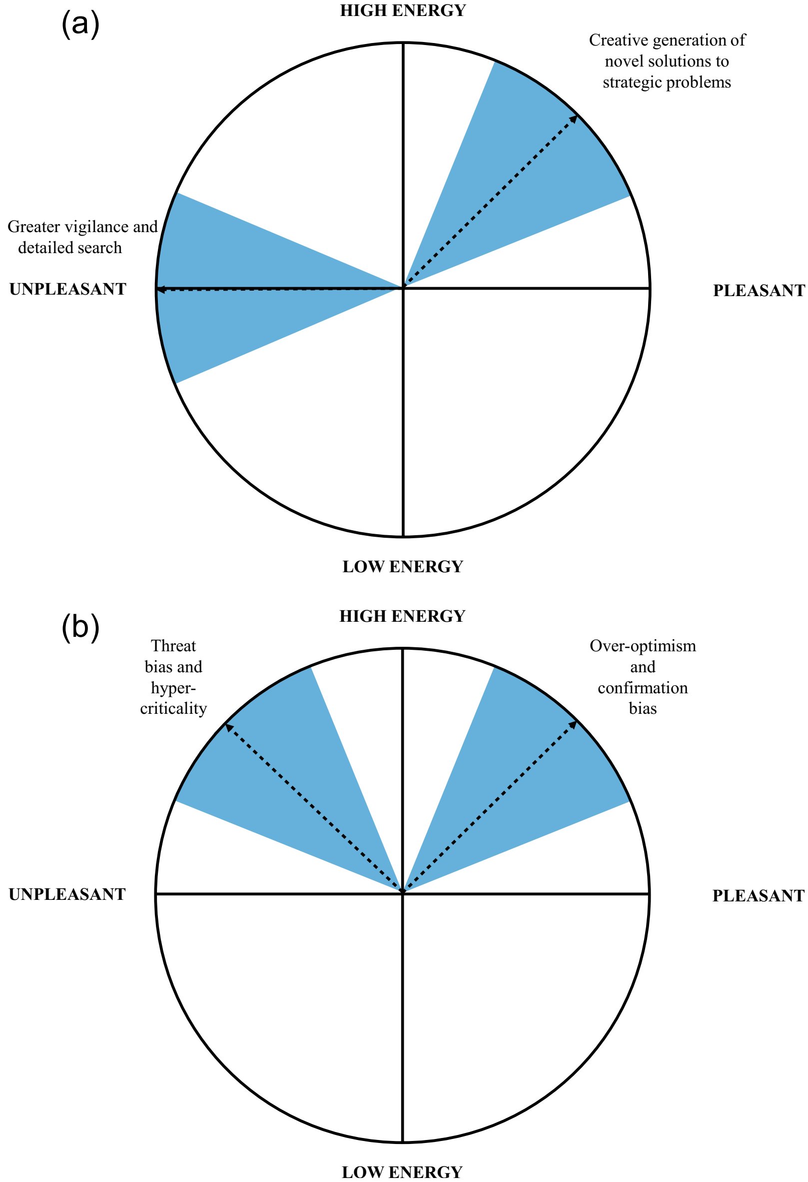
A key task for executives is to understand the emotional requirements of the situation at hand. In some cases, particular positive emotions will need to be augmented through up-regulation, whereas particular negative emotions will need to be attenuated through down-regulation. Conversely, in other situations, particular negative emotions will need to be amplified through up-regulation, whereas certain positive emotions will need to be tempered through down-regulation.

Sensing Opportunities and Threats

The two biggest traps in respect to sensing are giving undue influence to strategic issues that are of little consequence and paying only limited attention to issues that really matter. These traps matter because they undermine the ultimate ability of decision makers to develop and maintain mental models of the situation that are fit for the prevailing circumstances.[33]

As shown in Figure 2a, positive emotions are important for fostering creativity and facilitating the development of novel solutions.[34] However,

FIGURE 2. Effects of emotions on sensing: (a) Potential benefits and (b) Potential dangers.



positive emotions can also pose certain dangers to sensing (see Figure 2b). Feeling overoptimistic about the situation at hand (i.e., occupying an unwarranted position in the upper right quadrant of the circumplex model) can lead decision makers to overemphasize the potential benefits of new developments and overlook significant risks, with the result that minor developments are construed as major opportunities.[35] Similarly, being energized by, and committed emotionally to, particular ideas increases the likelihood that decision makers will fall foul of confirmation bias; that is, searching for information that confirms those ideas rather than questions them.[36]

As also shown in Figure 2a, negative mood can exert some surprisingly functional effects; for instance, fostering vigilance to external events and encouraging detailed information search.[37] However, as shown in Figure 2b, there are also dangers associated with straying too far into the upper left quadrant of the circumplex (i.e., the zone of high-energy/negative emotions such as stress and anxiety). For instance, executives may become too negative in outlook and thus be hypercritical of the avenues ahead. The danger here is the risk of misclassifying potentially legitimate opportunities as being of little value or even misdiagnosing them as threats.[38] We have witnessed time and again situations in which a climate of fear leaves decision makers unable to recognize potentially viable opportunities.[39]

So how can executives reap the benefits and avoid the dangers of emotional effects on sensing? As indicated in Table 1, they need to take time out to build emotional situation awareness of how they and their colleagues are feeling about the strategic issues at hand and ask how the sentiments prevailing are affecting the team's interpretation of the situation. Gaining such awareness can help leaders understand what steps are needed to enable the executive team to process information more deeply and critically, while keeping an eye on the bigger picture.[40]

To illustrate, executives might find it helpful to reflect on how their feelings, both individually and collectively, might be affecting how they are categorizing particular issues as threats or opportunities. It is particularly important to ask these questions whenever strong emotions are accompanied by a shortage of substantive evidence. When executives are running hot for a particular issue, this is the time to question whether those feelings are warranted. All too often, either because they are overexcited or unduly anxious, decision makers devote undue attention to issues that are of little consequence to their colleagues. By drawing alongside individuals who are reacting in this manner, leaders can probe the basis of their strong reactions in a nonthreatening way. For instance, when colleagues seem particularly enthused about, or perturbed by, a given strategic issue, skillful leaders might ask such individuals to explain why they are seemingly carried away with, or unduly opposed to, the idea in question so that they, too, can understand the source of their colleagues' strong reactions. Intervening in this way can be an effective way to down-regulate the emotion in question, providing a breaking mechanism to hold unwarranted zeal or negativity in check and instill, as necessary, a more critical, or appreciative, eye.

Of course, when decision makers are running hot for a particular issue, asking them to substantiate their position might well trigger defensiveness and stimulate post hoc reasoning as they attempt to justify their feelings. There is an important distinction here between using the kind of blunt challenge that is likely to trigger such defensiveness and the more subtle approach to probing that we are advocating. The key to encouraging a refocusing of strategic thought lies in leaders gaining an understanding of their colleagues and empathizing with them,

TABLE 1. A Checklist for Managing the Emotional Dynamics of Sensing.

Ask Yourself *How do I feel about this issue right now and how is it affecting my response?*	**Ask About Your Team** *How do your colleagues feel about this issue and how is it affecting their responses?*
Does the strategic issue at hand (e.g., the prospect of a new technology hitting your industry) fill you with dread, excitement, or both? Examine objective data to check feelings are warranted.	Are colleagues troubled or excited by the strategic issue at hand (e.g., the emergence of the new technology)? To deepen awareness, pay attention to one another's body language (e.g., facial expressions, posture, and gestures) and actions, as well as what is being said.
Are you construing the issue as an opportunity merely because it excites you, or as a threat merely because it fills you with emotional discomfort? Pay particular heed to the views of colleagues with contrasting feelings, to broaden the search and evaluation process.	Is the executive team's despondency or contentment creating blind spots in its search processes? Check for threat bias by asking if despondency is leading the team to see only downsides at the expense of upsides. Conversely, check for misplaced enthusiasm.

Note: Executives can use this checklist and the ones below to reflect on the critical questions required to build emotional situation awareness for each of the three dynamic capabilities of sensing, seizing, and transforming.

rather than openly challenging them in a threatening manner. Research shows that when individuals realize for themselves that their feelings are based on little or no substantive evidence (i.e., self-realization), the effect is to dampen misplaced emotions, leading in turn to a more balanced appraisal of the issues at stake.[41]

Down-Regulating Strategic Anxiety

There are many situations where it is desirable to down-regulate stress and anxiety as an antidote to the all-too-common tendency of managers to dismiss potentially viable opportunities due to a misplaced sense of pessimism. Such strong feelings can not only color how executives interpret evidence but also determine which lines of evidence they attend to in the first place. When negative emotions are prevailing, in extreme situations, it may be appropriate for executives to concede to their colleagues, "I'm in a bad place right now, so it's no good talking to me about this issue." In so doing, they are recognizing the importance of taking time out in order to avoid their emotions running roughshod over their judgments, an effective form of emotion regulation.[42]

Research shows that decision makers frequently avoid confronting issues that they find emotionally painful, a phenomenon known as the ostrich effect.[43] A useful technique for down-regulating anxiety over strategic issues is *emotional reappraisal*—that is, reframing an issue to change its meaning and so alter its emotional impact.[44] As illustrated in Table 2, in practical terms, emotional reframing often demands focusing attention on the technical details of a given issue, away from its personal and social significance, the latter being typically the cause of strong negative feelings. Encouraging people to find their own ways of thinking

TABLE 2. Regulating Emotion to Accelerate Strategic Adaptation: Sensing.

Emotional Challenges	Emotion Regulation Needs	Practical Illustrations
Discounting valuable but threatening information	Down-regulate anxiety	When promising markets or technologies are being shunned because they threaten existing beliefs, reappraise them to draw attention to their technical or financial merits, rather than focusing on their possible personal or social effects on particular individuals, groups, or departments.
Overlooking unfamiliar markets, technologies, or customers	Up-regulate enthusiasm for novelty and harness positive mood	Strive for a balance of emotional *traits* when assigning people to project teams involved in evaluating opportunities; use open-minded team members to search new domains; use team members with positive outlooks to generate ideas but use more critical team members to evaluate them.

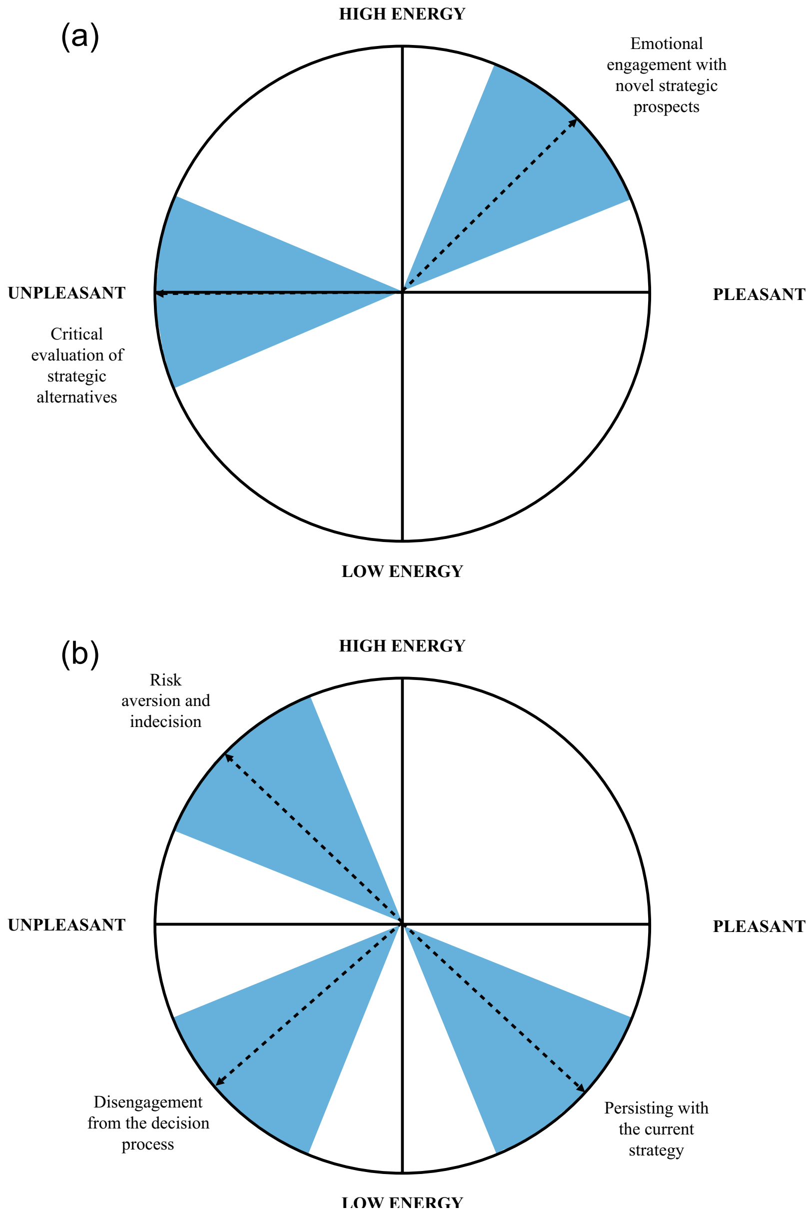
about an issue or event that leave them feeling comfortable can also dampen down potential negativity.

Reappraisal techniques work by controlling how events or issues are subjectively interpreted at the point they are considered, thereby altering feelings as they are experienced. Hence, effective reappraisal in sensing involves preempting potentially negative reactions to strategic issues and encouraging executives to reframe them in a nonthreatening manner before exploring them further, selecting positive features of the issue and/or focusing on their technical and financial, (rather than personal and social) aspects.

Fostering Openness to Novel Prospects

Of course, down-regulation is not the whole story. As illustrated in Table 2, up-regulating interest and enthusiasm is also an important dynamic managerial capability for building openness to new prospects.[45] One quality we have observed among forward-looking leaders is the ability to take control of the emotional trajectory of the situation before it becomes obstructive. Often, such action involves reappraising events in constructive ways. For instance, executives might conceive regulatory change as a chance to steal a march on the competition, rather than another fight against red tape, or interpret a failed new product launch as an opportunity to learn, rather than a mortal blow to the firm. Effective leaders seem to grasp two important aspects of these up-regulation techniques. First, they understand the need to ingrain positivity up-lifts in the firm's strategy-making processes, getting used to framing and reframing promising prospects over time. Second, they understand that effective timing is vital. It is much easier to encourage enthusiasm for a promising issue by intervening actively at the point that the executive team is first looking at that issue than to allow naysayers to poison the idea and have to rebuild enthusiasm later.

FIGURE 3. Effects of emotions on seizing: (a) Potential benefits and (b) Potential dangers.



Seizing Opportunities

As illustrated in Figure 3, occupying a particular emotional subspace (e.g., a high-energy pleasant state or a low-energy unpleasant state) opens up executives to various benefits and dangers in seizing, some of which facilitate effective decision making and some of which increase the chances of falling prey to particular decision biases. Asking the questions posed in Table 3 can increase awareness of how the prevailing emotions of key decision makers might be coloring particular investment choices.

TABLE 3. A Checklist for Managing the Emotional Dynamics of Seizing.

Ask Yourself *How do I feel about this issue right now and how is it affecting my response?*	**Ask about Your Team** *How do your colleagues feel about this issue and how is it affecting their responses?*
Am I getting carried away with particular courses of action merely because they excite me, or discounting them merely because they threaten my sense of well-being? To counter overoptimism, up-regulate tension to aid criticality. To counter issue avoidance, up-regulate enthusiasm.	Is our assessment of the alternatives being clouded by our attachment to past successes? To counter status quo bias, consider counterfactual scenarios in which sticking with the status quo becomes a major source of anticipated regret for the team, thereby up-regulating negative affect toward the status quo.

As shown in Figure 3b, the chief danger of unwarranted enthusiasm and excitement (i.e., straying too far into the upper right-hand quadrant when the evidence available does not support such enthusiasm) is that managers become emotionally committed to a particular strategic option prematurely, leading them to prejudge alternative investments in a nonimpartial manner. The converse danger of straying too far into the emotional territory depicted in the upper left-hand quadrant of Figure 3b (i.e., a misplaced sense of negativity) is that this can lead to decisional stress. In extreme cases, such stress can result in risk aversion or, worse, a crippling fear of failure that paralyzes individuals into indecision.[46] In such extreme circumstances, every which way one looks, the options look equally bleak.[47] The chief danger associated with the feeling states in the bottom left quadrant of the affective circumplex is complete disengagement from the decision process; in these circumstances, depression and lethargy take over and decision makers adopt a business as usual mentality. Although, on the surface, being calm and relaxed (i.e., the bottom right quadrant of the affective circumplex) may seem like an ideal place to be, the danger here is persisting with a strategy that has proven successful in the past, due to a misplaced sense of contentment.[48]

Of the emotional challenges outlined above, the most pressing ones for executives are unlocking emotional fixations with existing investments and building emotional commitment to more novel but uncertain prospects.[49] Fortunately, executives can use the emotion regulation techniques outlined in Tables 3 and 4 to manage these particular emotional dynamics and thus enhance the quality of the decision process.

The Power of Negativity

Many firms sow the seeds of their own downfall by continually favoring options that promote business as usual over risky new investments (i.e., status quo bias), and there are several reasons for this predilection.[50] Perhaps the most pernicious reason is that all-too-commonly executives become emotionally attached inappropriately to the people, places, and things associated closely with the strategic status quo.[51] For instance, even when the imperative for divesting a long-standing asset is clear to people outside of the decision process, executives will search for and find alternative reasons to justify its retention. In this

TABLE 4. Regulating Emotion to Accelerate Strategic Adaptation: Seizing.

Emotional Challenges	Emotion Regulation Needs	Practical Illustrations
Unlocking attachment to business as usual	Up-regulate negative affect associated with the status quo	Use negative narratives and imagery to create apprehension around sticking with business as usual (e.g., "if we cannot stop returns dwindling, we will need to close down . . . [certain cherished activities]"); use counterfactual reasoning to instill a sense of anticipated regret (e.g., "if we miss this opportunity by sticking with business as usual, we will all come to regret it").
Building commitment to potentially rewarding but radical options	Up-regulate enthusiasm and excitement for novel alternatives	Rather than focus only on the financial forecasts of an investment, use vivid forward-looking scenarios that are rich in imagery and narrative concerning the personal and social benefits for stakeholders.

situation, up-regulating unpleasant high-energy emotions can serve an important adaptive function.

Studies of escalation of commitment show that decision makers often continue to invest in a failing cause for reasons of self-justification—that is, to prove to themselves and others that their initial investment was sound.[52] In contrast, when decision makers feel troubled by their previous investments in a failing cause, or feel a sense of regret with those investments, they are less likely to try to rationalize the failure and more likely to reduce their degree of investment in that cause when making subsequent decisions.[53] Hence, up-regulating negative affect can help to prevent decision makers from overcommitment to mistaken investments. As illustrated in Table 4, one simple way to up-regulate displeasure is to get people to focus on negative imagery.[54] For instance, executives might be encouraged to describe in vivid terms the negative consequences of sticking with a declining investment, such as the downsizing and job cuts required by dwindling returns. Similarly, they might seek to amplify regret pertaining to a failing investment by focusing on counterfactuals.[55] This technique involves emphasizing—in personal and financial terms—the opportunity costs of sticking with a suboptimal status quo option. For instance, executives might be encouraged to paint a rich picture of what the firm might have achieved had they foregone a dwindling investment and pursued, instead, a more promising alternative.

In one financial services firm we worked with, a member of the top team used this technique to instill a sense of regret, describing in numbers and imaginative terms what the firm might have achieved had it followed a competitor and shifted away from its reliance on selling through customer contact centers, investing instead in a technology that enabled direct online selling. There is an important caveat here: executives need to tread with care when up-regulating unpleasant high-energy emotions, because some emotions falling within this category, specifically anger and fear, can actually harden commitment to a failing course of action.[56]

Building Positive Emotional Commitment to Strategic Options

The opposite danger to having unwarranted positive feelings tied to an extant investment is having too little positive energy around a proposed alternative. Even in situations where the numbers stack up nicely for a potential option, firms can fail to act decisively if there is an absence of genuine enthusiasm and excitement.[57] Research shows that cold, dispassionate assessments of the probability and utility of a given option are often insufficient to compel bold choices, especially when competing alternatives invoke more visceral reactions.[58] By bold choices, we mean choosing action over inaction when facing risky but potentially rewarding options.[59] Although not all bold choices are good ones, making effective high-stakes decisions requires executives to be bold in their convictions and actions.[60] In such situations, techniques for up-regulating positive emotion can play a crucial role in motivating the shift in attention and effort required to foster the necessary commitment to a more advantageous choice option (see Figure 3a).

High-stakes decisions are often made based on powerful emotions and such emotions typically arise from the mental imagery associated with the chosen prospect.[61] As illustrated in Table 4, carefully managing mental imagery can be an effective way to build positive emotional commitment to new prospects. Scenario planning techniques can be adapted for this purpose. In a typical multiple scenario exercise, the emphasis is on capturing a range of plausible futures the organization could face in order to challenge the assumption of a "business as usual" future.[62] In this context, focusing on a single scenario can exacerbate bias toward prior assumptions.[63] In contrast, when seeking to build emotional commitment to a particular potentially valuable prospect, it can be useful to develop vivid accounts of how the firm's future would blossom if it made that investment. Such accounts need to capture not only the financial benefits of the investment but also depict in rich terms the personal and social benefits for the key individuals concerned and the enterprise as a whole.

The New York Times's attempts to build commitment to its vision for a digital future illustrate imagery and emotion in action. One of the most striking features of its strategic plan, "*Innovation,*" is the powerful use of imagery and narrative to build a sense of danger around the status quo, and to inculcate a sense of excitement around its new "digital first" strategy.[64] Experiments with new ways of distributing digital stories are described in vivid detail, accompanied by striking charts showing impressive page view results and photographs showing screenshots of glossy stories displayed on the latest mobile devices. This approach personalizes the implications of the various strategic options on the table to maximize engagement through the use of images of award-winning journalists who exemplify the proposed new strategy in action. The entire plan is an exercise in up-regulating positive emotion in an attempt to secure the necessary buy in.

TABLE 5. A Checklist for Managing the Emotional Dynamics of Transforming.

Ask Yourself *How do I feel about this issue right now and how is it affecting my response?*	**Ask about Your Team** *How do your colleagues feel about this issue and how is it affecting their responses?*
Do you feel energized about changing the business in the required way, or do you feel disengaged and disinterested? To inject positivity, focus on the interconnections between the past and the present and on the personal and social benefits of strategic change.	Looking across the organization, is the emotional climate conducive to embracing authentically the changes ahead? Are there signs of active resistance, passive resistance, or disengagement? Build on enduring sources of pride to foster resilience and engender a positive outlook.

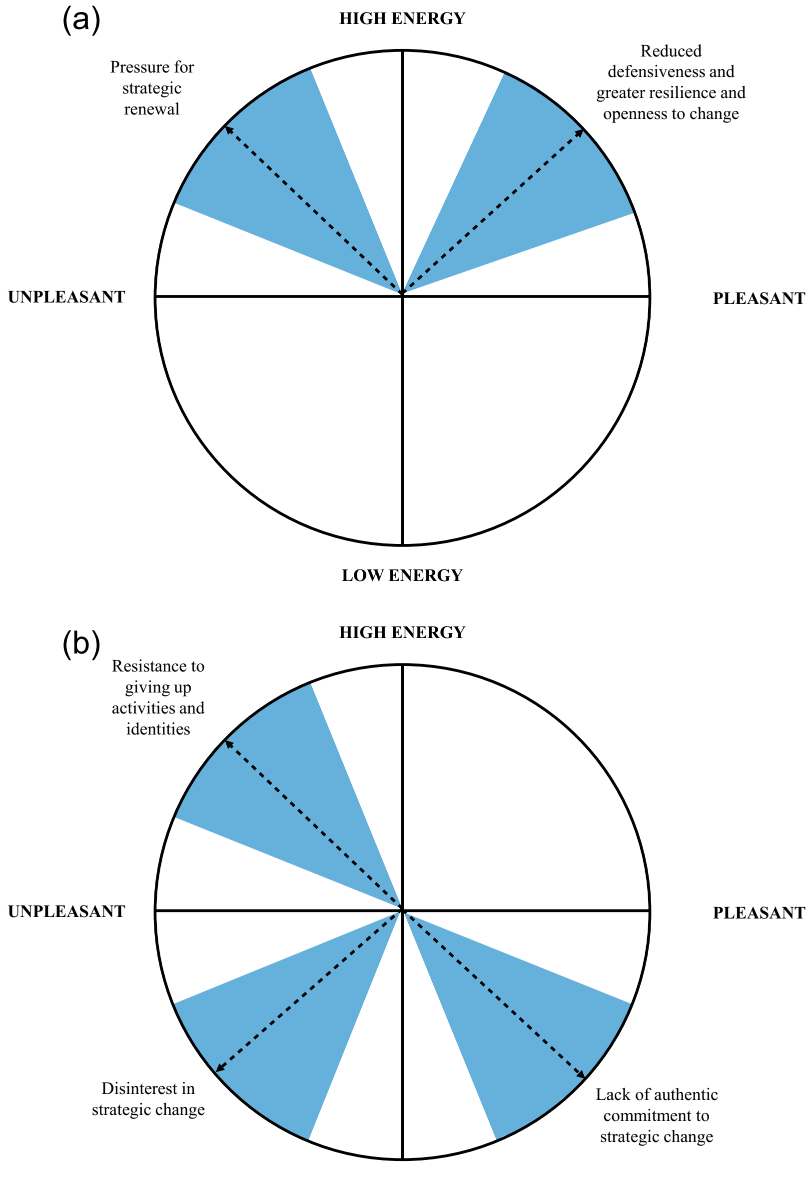
Transforming Organizations and Identities

When telecom giant Nokia finally divested its ailing handsets division to Microsoft, Chairman Risto Siilasma acknowledged that although the deal made sense rationally, it was very difficult emotionally, not least because it challenged everyone's sense of what Nokia stood for and what that meant for their own sense of "self" (i.e., their sense of who they are). When executives try to transform a firm's structures, processes, and assets, the central psychological challenge is one of managing the personal and social identity concerns raised by such major changes. The key to managing such emotional difficulties is to first understand the differing emotional dynamics in play during organizational and identity transformations (see Table 5). The next challenge is to then down-regulate the avoidance emotions and up-regulate the approach emotions shown in Figure 4. Table 6 illustrates how executives can meet this challenge by framing strategic change in such a way that it affirms rather than undermines the core identities of the individuals and groups affected by the change process. As demonstrated below, these steps should help to not only ensure that people buy into the firm's future but also become energized and enthused by the shift of direction.

Understanding Emotional Resistance to Strategic Transformation

As shown in Figure 4b, there is a particular danger when employees affected by strategic changes move away from the upper right-hand quadrant (characterized by enthusiasm and excitement) and into the upper left-hand quadrant (marked by anxiety and stress). Specifically, such tensions increase the risk that employees will react with hostility toward colleagues who are championing the change and the ideas they are seeking to introduce, and will actively resist further involvement in the process.[65] Employees displaying unpleasant low-energy emotions (e.g., fatigue, despondency), in contrast, are more likely to passively resist the change process or even disengage from it, whereas employees situated in the lower right quadrant (e.g., feeling contentment with the status quo) will more typically adopt a position of passive acceptance, allowing themselves to be carried along in the overall direction of change, but again with minimal engagement.[66] On the positive side, pleasurable feelings such as pride

FIGURE 4. Effects of emotions on transforming: (a) Potential benefits and (b) Potential dangers.



and self-confidence can serve as resources for fostering openness and building psychological resilience during strategic transformation (see Figure 4a), and the buildup of stress concerning the inadequacies of the current strategy can create the impetus for strategic renewal.[67]

As illustrated in Table 5, the first step in managing the emotional dynamics of transformation is to ask which parts of the organization are most likely to

TABLE 6. Regulating Emotion to Accelerate Strategic Adaptation: Transforming.

Emotional Challenges	Emotion Regulation Needs	Practical Illustrations
Reducing resistance to identity-threatening strategic change	Down-regulate identity-threatening anxiety, up-regulate positive self-worth	Use self-affirmation to up-regulate positive emotions by affirming and bolstering enduring aspects of identity that fit with the proposed changes in the firm's strategic direction. Create opportunities for collective affirmation, sharing stories of identity-affirmation from previous strategic changes.

be affected adversely by the proposed changes and in what ways will those changes affect the personal and social identity concerns of key stakeholders—senior managers, middle managers, technical staff, and beyond. It is important to recognize that people identify not only with the distinctive character of the organization as an entity but also with its business units, departments, and products/services.[68] As people internalize these various identities as part of their sense of self, they become psychologically attached to them. Hence, changes that potentially threaten the viability of the social units with which particular colleagues identify most strongly will raise identity concerns that trigger defensive reactions directed toward self- and collective preservation. For instance, changes to organizational structures or physical locations trigger identity threats by threatening personal relationships, while changing what people work on—products, services, platforms, ideas—can similarly threaten enduring professional identities.

The second step is to ask what type and strength of feeling is likely to result from the anticipated identity threats, as indicated in Table 5. In no small part, this will depend on how strongly key players are identifying with the aspects of the organization that must be reconfigured and the size of the "identity gap" between prevailing identities and new ones implied by the change. To minimize such deleterious consequences, it is crucial that colleagues are able to see a viable means of connecting their existing identities to the firm's proposed new direction.[69] For instance, when colleagues identify strongly with a part of the business that is to be transformed and the identity gap is unclear, identity threat is likely to heighten stress and anxiety and mobilize defensive responses, as people seek to protect their identities. Alternatively, when the identity gap is so great that colleagues cannot see how their identities will be relevant in the future, identity threat is likely to cause sadness and depression, and they will be inclined to resist changes more passively.[70] In situations where the strength of identification is lower and/or the identity gap is small, the individuals affected are unlikely to sense a threat to their sense of self. As such, they are likely to feel content but lack the authentic commitment and urgency required for strategic transformation (as shown in Figure 4b).

Using Affirmation to Aid Identity Change

With a clearer picture of how employees are likely to react emotionally to strategic transformation, the remaining challenge is framing change to foster a receptive emotional climate. As illustrated in Tables 5 and 6, building such a climate requires attending directly to the emotional demands of identity change by down-regulating anxiety and up-regulating pride in enduring identities.

A useful technique for fostering receptiveness to strategic transformation is what psychologists term "self-affirmation."[71] Self-affirmation recognizes that people react defensively to information that threatens their perceived worth because they have a fundamental need to protect the integrity of the self. Research shows that affirming positive aspects of people's self-concept increases their openness to information that is useful for learning, even when that information threatens their immediate sense of psychological well-being.[72] Feeling secure in the self creates a psychological buffer that unblocks the desire to protect the self from threatening information, leaving people more inclined to consider new information. Self-affirmation can also loosen commitment to previously rewarding but now outmoded ideas and activities.[73]

So how does it work? As illustrated in Tables 5 and 6, leaders must isolate those aspects of identity (the sense of who "we" are) that are important to key stakeholders' sense of self and fit with the planned realignment of the firm. What this requires in practice is affirming those aspects of identity that are still likely to be integral to the firm's future direction, and doing this through carefully designed written communications, face-to-face meetings, and related activities. Returning to *The New York Times* example, executives did this by consistently emphasizing how the value of quality journalism—an identity concern that was central to employees in the newsroom and beyond—would provide the firm with its distinctive competence, even in the digital future it was moving toward. Even when it seems that transformation will lead to the extinction of once cherished elements of established identities, it is the job of strategic leaders to identify selected elements of those identities that can be retained. Affirming those elements and crafting the new identity around them builds an identity resource that can serve as a source of emotional support on which those affected by the changes can draw. In the case of *The New York Times*, executives sought to manage this process by affirming core aspects of the journalistic identity (e.g., uncovering stories that matter and getting them to the right audience) even while loosening attachment to other elements of that identity (e.g., paper-and-print working practices and products).

Intel provides another illustration of this process of self-affirmation in action. Threatened by the growing intensity of competition in respect of its core offering, Intel's leaders sought to move the company away from its central identity as a microchip builder, seeking instead to redefine the firm as a platform provider; that is, a producer of open technological systems for enterprise, digital health, digital home, and mobile platforms. To smoothen this transition, they emphasized a more abstract vision of Intel that reinforced existing values that were consistent with the new direction. With the terms "architect of industry," "enabler of innovation," and "industry catalyst," Intel's leaders chose concepts from the language of chemistry, engineering, and design to affirm still-relevant facets of Intel's technological identity that resonated with the wider workforce but also fit the new direction for the company.[74] The essential message was "this may be new, but deep down it is what we've always been good at."

As highlighted in Table 6, when trying to turn a firm's history into a basis for flexibility, the experience of others can also be a source of affirmation. One of the authors of this article recently used this approach when facilitating a strategy workshop involving the national leadership team of a major multinational organization competing in an increasingly regulated industry. The primary objective was to secure the buy in of senior and middle managers to a large-scale initiative to transform the organization's culture from one dominated by a preoccupation with technical excellence to one that was more customer focused. The intervention began with a short presentation outlining the changing context in which the facilitator contrasted rosy and hostile futures. Next, participants worked in breakout groups to contrast their feelings and thoughts about the challenges ahead with their feelings and thoughts about a similar large-scale cultural transformation process that had taken place within the firm some ten years earlier. Participants who had been with the organization during the previous transformation were encouraged to describe to their newer colleagues how they had felt at the time and how their feelings had changed over subsequent years. They typically spoke of how their initial feelings of apprehension had given way to an enduring sense of pride, as the organization moved from being an average player to a world leader with a reputation for technical excellence and safe working practices. The overriding aim was to bring to the fore the positive features of the organization's strongly shared identity as a dynamic enterprise and to provide an emotionally supportive climate when developing actionable steps that the various teams could use to drive forward the new focus on customer engagement.

Conclusion

Drawing on advances in the science of emotion, we have outlined a set of practical techniques for helping organizations to enhance their sensing, seizing, and transforming capabilities. In the final analysis, executives live or die by the judgments and choices they make. Knowing how and when to manage emotions is thus a judgment call that requires careful attention. For this reason, the emotion regulation techniques presented here should be an important part of the managerial dynamic capability toolkit of every executive.

Acknowledgments

Authorship is alphabetical, reflecting joint and equal contribution. The authors are grateful to Dan Lovallo, Thomas Powell, and three anonymous reviewers for their helpful comments and suggestions on earlier versions of this article.

Author Biographies

Mark P. Healey is Senior Lecturer (Associate Professor) in Strategic Management at Alliance Manchester Business School at the University of Manchester (email: mark.healey@manchester.ac.uk).

Gerard P. Hodgkinson is Deputy Head of Alliance Manchester Business School and Professor of Strategic Management and Behavioural Science at the University of Manchester (email: gerard.hodgkinson@manchester.ac.uk).

Notes

1. D. J. Teece, "Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance," *Strategic Management Journal*, 28/13 (December 2007): 1319-1350.
2. G. P. Hodgkinson and M. P. Healey, "Psychological Foundations of Dynamic Capabilities: Reflexion and Reflection in Strategic Management," *Strategic Management Journal*, 32/13 (December 2011): 1500-1516; G. P. Hodgkinson and M. P. Healey, "Coming in from the Cold: The Psychological Foundations of Radical Innovation Revisited," *Industrial Marketing Management*, 43/8 (November 2014): 1306-1313.
3. Teece, op. cit., explicated the skills and processes that underpin sensing seizing and transforming. More recently, drawing on advances in the social neurosciences, Hodgkinson and Healey (2011, 2014, op. cit.) revisited the psychological assumptions underpinning Teece's framework and proposed an alternative "hot cognition" approach to strategic adaptation, highlighting the significance of emotion and related affective processes. While most prescriptions for addressing the psychological challenges of sensing, seizing, and transforming focus on deliberation and reasoning process that are free of emotion (e.g., Dong, Garbuio, and Lovallo, 2016; Helfat and Peteraf, 2015), Hodgkinson and Healey have demonstrated that these ("cold") remedies are necessary but insufficient for facilitating strategic adaptation; indeed, in isolation they can actually heighten barriers to strategic adaptation. Rather, executives need to develop skills and processes for managing the emotional dynamics that lie at the heart of strategic adaptation. A. Dong, M. Garbuio, and D. Lovallo, "Generative Sensing: A Design Perspective on the Microfoundations of Sensing," *California Management Review*, 58/4 (Summer 2016): 97-117; C. E. Helfat and M. A. Peteraf, "Managerial Cognitive Capabilities and the Microfoundations of Dynamic Capabilities," *Strategic Management Journal*, 36/6 (June 2015): 831-850.
4. We build here on the idea that thinking (cognition) and feeling (emotion) operate in a dynamic interplay. Although emotion and cognition have distinct functional features, each being associated with specific neural, cognitive, and affective systems, evidence shows that they are in constant interaction, each influencing the other. See, for example, J. E. Ledoux, *The Emotional Brain* (New York, NY: Simon & Schuster, 1996); M. D. Lieberman, "Social Cognitive Neuroscience: A Review of Core Processes," *Annual Review of Psychology*, 58 (2007): 259-289. See also M. P. Healey, T. Vuori, and G. P. Hodgkinson, "When Teams Agree while Disagreeing: Reflexion and Reflection in Shared Cognition," *Academy of Management Review*, 40/3 (July 2015): 399-422.
5. See, for example, G. P. Hodgkinson and I. Clarke, "Exploring the Cognitive Significance of Organizational Strategizing: A Dual-Process Framework and Research Agenda," *Human Relations*, 60/1 (2007): 243-255; G. P. Hodgkinson and M. P. Healey, "Cognition in Organizations," *Annual Review of Psychology*, 59 (2008): 387-417; G. P. Hodgkinson, J. Langan-Fox, and E. Sadler-Smith, "Intuition: A Fundamental Bridging Construct in the Behavioural Sciences," *British Journal of Psychology*, 99/1 (2008): 1-27; G. P. Hodgkinson, E. Sadler-Smith, L. A. Burke, G. Claxton, and P. R. Sparrow, "Intuition in Organizations: Implications for Strategic Management," *Long Range Planning*, 42/3 (June 2009): 277-297; Hodgkinson and Healey (2011), op. cit.; Hodgkinson and Healey (2014), op. cit.; Healey, Vuori, and Hodgkinson, op. cit.; G. P. Hodgkinson, R. P. Wright, and J. Anderson, "Emotionalizing Strategy Research with the Repertory Grid Technique: Modifications and Extensions to a Robust Procedure for Mapping Strategic Knowledge," in *Advances in Strategic Management, Volume 32: Cognition and Strategy*, ed. G. Gavetti and W. Ocasio (Bingley: Emerald Group, 2015), pp. 505-547.

6. We are not the first to draw attention to the effects of positive and negative emotions in strategic management. However, for the most part, discussions of emotional factors have taken place at the margins of strategic management. See, for example, T. C. Powell, D. Lovallo, and C. R. Fox, "Behavioral Strategy," *Strategic Management Journal*, 32/13 (December 2011): 1369-1386; D. Lovallo and O. Sibony, "The Case for Behavioral Strategy," *McKinsey Quarterly*, 2 (March 2010): 30-43. In this article, we seek to bring emotional factors center stage and illustrate how they are vital to developing and maintaining the firm's dynamic capabilities. For illustrative examples of prior research on emotion in strategy, see K. M. Eisenhardt, "Making Fast Strategic Decisions in High-Velocity Environments," *Academy of Management Journal*, 32/3 (September 1989): 543-576; Q. N. Huy, "Emotional Capability, Emotional Intelligence, and Radical Change," *Academy of Management Review*, 24/2 (April 1999): 325-345; H. A. Simon, "Making Management Decisions: The Role of Intuition and Emotion," *Academy of Management Executive*, 1/1 (February 1987): 57-64; M. F. R. Kets de Vries and D. Miller, "Neurotic Style and Organizational Pathology," *Strategic Management Journal*, 5/1 (January-March 1984): 35-55.
7. For parsimony, in this article, we use emotion as an umbrella term incorporating moods, emotions, and emotion-related traits. In the technical literature, however, psychologists typically distinguish emotions from moods. The former involve relatively short-term psychological, physiological, and behavioral changes experienced in reaction to specific events, whereas the latter are more enduring feeling states that typically lack a specific cause. Psychologists also commonly differentiate higher-order emotions (e.g., pride, remorse), which reflect complex appraisals, from more basic emotional reactions (e.g., fear, anger). The latter are more "reflexive" and thus occur with less deliberation. Strictly speaking, "affect" is the term used most commonly in the technical literature as a catch-all label, in much the same way that we are adopting the term emotion. Our reason for favoring emotion is that in our experience it is the label used most commonly by executives and managers to denote all of the above constructs. For an overview of these issues, see M. Lewis, J. M. Haviland-Jones, and L. Feldman Barrett, eds., *Handbook of Emotions* (New York, NY: Guilford Press, 2010). For an excellent review of the emotion revolution in psychology and decision research, see J. S. Lerner, Y. Li, P. Valdesolo, and K. S. Kassam, "Emotion and Decision Making," *Annual Review of Psychology*, 66 (2015): 799-823.
8. C. Camerer, G. Loewenstein, and D. Prelec, "Neuroeconomics: How Neuroscience Can Inform Economics," *Journal of Economic Literature*, 43/1 (March 2005): 9-64.
9. G. Loewenstein, ed., *Exotic Preferences: Behavioral Economics and Human Motivation* (Oxford, UK: Oxford University Press, 2007).
10. Ibid.
11. A problem with airbrushing emotion out of the strategy picture is that it perpetuates a rationality façade, implying that strategy is, and should be, the sole preserve of "cold" calculation. For a broader discussion of rationality façades and their consequences, see E. Abrahamson and P. Baumard, "What Lies behind Organizational Façades and How Organizational Façades Lie: An Untold Story of Organizational Decision Making," in *The Oxford Handbook of Organizational Decision Making*, ed. G. P. Hodgkinson and W. H. Starbuck (Oxford, UK: Oxford University Press, 2008), pp. 437-452.
12. J. J. Gross, "The Emerging Field of Emotion Regulation: An Integrative Review," *Review of General Psychology*, 2/3 (September 1998): 271-299; J. Tooby and L. Cosmides, "The Past Explains the Present: Emotional Adaptations and the Structure of Ancestral Environments," *Ethology and Sociobiology*, 11/4-5 (July-September 1990): 375-424.
13. Hodgkinson and Healey (2011), op. cit.; N. Karlsson, G. Loewenstein, and D. Seppi, "The Ostrich Effect: Selective Attention to Information," *Journal of Risk and Uncertainty*, 38/2 (April 2009): 95-115.
14. V. Mittal and W. T. Ross, "The Impact of Positive and Negative Affect and Issue Framing on Issue Interpretation and Risk Taking," *Organizational Behavior and Human Decision Processes*, 76/3 (December 1998): 298-324.
15. R. A. Baron and J. Tang, "The Role of Entrepreneurs in Firm-Level Innovation: Joint Effects of Positive Affect, Creativity, and Environmental Dynamism," *Journal of Business Venturing*, 26/1 (January 2011): 49-60.
16. J. E. Perry-Smith and R. W. Coff, "In the Mood for Entrepreneurial Creativity? How Optimal Group Affect Differs for Generating and Selecting Ideas for New Ventures," *Strategic Entrepreneurship Journal*, 5/3 (September 2011): 247-268.

17. J. B. Delgado-García and J. M. De La Fuente-Sabaté, "How Do CEO Emotions Matter? Impact of CEO Affective Traits on Strategic and Performance Conformity in the Spanish Banking Industry," *Strategic Management Journal*, 31/5 (May 2010): 562-574.
18. S. G. Barsade, "The Ripple Effect: Emotional Contagion and Its Influence on Group Behavior," *Administrative Science Quarterly*, 47/4 (December 2002): 644-675.
19. Research shows that "group emotion" can develop such that the members of one subgroup share feelings that differ from the shared feelings of other subgroups. See J. Sanchez-Burks and Q. N. Huy, "Emotional Aperture and Strategic Change: The Accurate Recognition of Collective Emotions," *Organization Science*, 20/1 (January/February 2009): 22-34; Huy (1999), op. cit.; Q. N. Huy, "Emotional Balancing of Organizational Continuity and Radical Change: The Contribution of Middle Managers," *Administrative Science Quarterly*, 47/1 (March 2002): 31-69; Q. N. Huy, "How Middle Managers' Group-Focus Emotions and Social Identities Influence Strategy Implementation," *Strategic Management Journal*, 32/13 (December 2011): 1387-1410.
20. M. F. R. Kets de Vries and D. Miller, *The Neurotic Organization* (San Francisco, CA: Jossey-Bass, 1984); Kets de Vries and Miller, (January-March 1984, op. cit.).
21. The circumplex model of affect was developed to represent the structure of affect, not as a comprehensive depiction of the full range of human emotion or as a tool for managing emotions. Nevertheless, the circumplex is a useful device for conveying how a wide range of emotions influence variously the activities of sensing, seizing, and transforming among individual decision makers. For a detailed application of the affective circumplex in strategic management, see Hodgkinson, Wright, and Anderson, op. cit. There are many other models of, and approaches to, the analysis and management of emotion. For representative examples, see S. G. Barsade and D. E. Gibson, "Why Does Affect Matter in Organizations?" *Academy of Management Perspectives*, 21/1 (February 2007): 36-59.
22. K. D. Elsbach and P. S. Barr, "The Effects of Mood on Individuals' Use of Structured Decision Protocols," *Organization Science*, 10/2 (March/April 1999): 181-198; A. M. Isen, K. A. Daubman, and G. P. Nowicki, "Positive Affect Facilitates Creative Problem Solving," *Journal of Personality and Social Psychology*, 52/6 (1987): 1122-1131.
23. Hodgkinson and Healey (2011), op. cit.; Hodgkinson and Healey (2014), op. cit.
24. Q. N. Huy, "An Emotion-Based View of Strategic Renewal," in *Advances in Strategic Management, Volume 22: Strategy Process*, ed. G. Szulanski, J. Porac, and Y. Doz (Bingley, UK: Emerald, 2005), pp. 3-37.
25. We adopt Gross's definition of emotion regulation, namely that "emotion regulation refers to the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions." Gross (1998), op. cit., p. 275.
26. Scholars often use the terms emotion regulation, self-regulation, and self-control interchangeably. In this article, we prefer the term emotion regulation because it renders clear what precisely it is that is being regulated—that is, emotions. For an excellent discussion of self-control in strategic management, see S. Postrel and R. P. Rumelt, "Incentives, Routines, and Self-Command," *Industrial and Corporate Change*, 1/3 (1992): 397-425.
27. J. J. Gross, ed., *Handbook of Emotion Regulation* (New York, NY: Guildford, 2014).
28. The words are Sir William Haley's, quoted by Alan Rushbridger. See A. Rushbridger, "'Farewell, Readers': Alan Rusbridger on Leaving the Guardian after Two Decades at the Helm," *The Guardian*, May 29, 2015, http://www.theguardian.com/media/2015/may/29/farewell-readers-alan-rusbridger-on-leaving-the-guardian, accessed October 2, 2015.
29. J. M. Keynes, *The General Theory of Employment, Interest and Money* (London, UK: MacMillan, 1936), pp. 161-162.
30. See, for example, A. C. Edmondson and D. M. Smith, "Too Hot to Handle? How to Manage Relationship Conflict," *California Management Review*, 49/1 (Fall 2006): 6-31.
31. A. A. Grandey, "Emotional Regulation in the Workplace: A New Way to Conceptualize Emotional Labor," *Journal of Occupational Health Psychology*, 5/1 (2000): 95-110; J. M. Richards and J. J. Gross, "Emotion Regulation and Memory: The Cognitive Costs of Keeping One's Cool," *Journal of Personality and Social Psychology*, 79/3 (2000): 410-424.
32. Identifying which emotions are predominating in a given situation is a demanding skill. However, research shows that people are generally adept at reading their own emotions and the emotions of others, both in general and in the workplace. For general evidence, see L. F. Barrett, J. Gross, T. C. Christensen, and M. Benvenuto, "Knowing What You're Feeling and Knowing What to Do about It: Mapping the Relation between Emotion Differentiation and Emotion Regulation," *Cognition and Emotion*, 15/6 (2001): 713-724; H. A. Elfenbein and

N. Ambady, "On the Universality and Cultural Specificity of Emotion Recognition: A Meta-Analysis," *Psychological Bulletin*, 128/2 (2002): 203-235. For evidence in the workplace, see H. A. Elfenbein, M. Der Foo, J. White, H. H. Tan, and V. C. Aik, "Reading Your Counterpart: The Benefit of Emotion Recognition Accuracy for Effectiveness in Negotiation," *Journal of Nonverbal Behavior*, 31/4 (December 2007): 205-223; R. S. Rubin, D. C. Munz, and W. H. Bommer, "Leading from Within: The Effects of Emotion Recognition and Personality on Transformational Leadership Behavior," *Academy of Management Journal*, 48/5 (October 2005): 845-858; Sanchez-Burks and Huy (2009), op. cit.; N. Rothman and S. Melwani, "Feeling Mixed, Ambivalent, and in Flux: The Social Functions of Emotional Complexity for Leaders," *Academy of Management Review*, 42/2 (April 2017): 259-282; M. G. Seo and L. F. Barrett, "Being Emotional during Decision Making—Good or Bad? An Empirical Investigation," *Academy of Management Journal*, 50/4 (August 2007): 923-940. Even when it is difficult to know precisely whether a person is, for example, feeling anxious or angry, skilled executives can recognize in general terms whether people are in a state of emotional discomfort or conversely in a state of emotional contentment. They can use this awareness to reflect on how emotions might be affecting adversely or positively understanding (sensing), the choices they are favoring (seizing), and their willingness or reluctance to embrace strategic change (transforming).

33. The idea that the transformation or modification of mental models leads to new combinations of knowledge or new ways of thinking that change the way actors interpret economic events, leading them to recognize or discover opportunities, runs right through strategic management, from Schumpeter to contemporary theory and research on organizational learning and strategic entrepreneurship. For an overview, see D. K. Dutta and M. M. Crossan, "The Nature of Entrepreneurial Opportunities: Understanding the Process Using the 4I Organizational Learning Framework," *Entrepreneurship Theory and Practice*, 29/4 (July 2005): 425-449. See also G. P. Hodgkinson, N. J. Bown, A. J. Maule, K. W. Glaister, and A. D. Pearman, "Breaking the Frame: An Analysis of Strategic Cognition and Decision Making Under Uncertainty," *Strategic Management Journal*, 20/10 (October 1999): 977-985; Hodgkinson and Healey (2008), op. cit.
34. On positive affect and creativity, see Isen, Daubman, and Nowicki, op. cit.
35. Mittal and Ross, op. cit.; S. E. Jackson and J. E. Dutton, "Discerning Threats and Opportunities," *Administrative Science Quarterly*, 33/3 (September 1988): 370-387; P. Slovic, M. L. Finucane, E. Peters, and D. G. MacGregor, "The Affect Heuristic," *European Journal of Operational Research*, 177/3 (2007): 1333-1352.
36. G. D. Munro and J. A. Stansbury, "The Dark Side of Self-Affirmation: Confirmation Bias and Illusory Correlation in Response to Threatening Information," *Personality and Social Psychology Bulletin*, 35/9 (September 2009): 1143-1153.
37. J. P. Forgas, "Don't Worry, Be Sad! On the Cognitive, Motivational, and Interpersonal Benefits of Negative Mood," *Current Directions in Psychological Science*, 22/3 (2013): 225-232.
38. See Jackson and Dutton, op. cit.
39. See also B. M. Staw, L. E. Sandelands, and J. E. Dutton, "Threat-Rigidity Effects in Organizational Behavior: A Multilevel Analysis," *Administrative Science Quarterly*, 26/4 (December 1981): 501-524; T. Vuori and Q. N. Huy, "Distributed Attention and Shared Emotions in the Innovation Process: How Nokia Lost the Smartphone Battle," *Administrative Science Quarterly*, 61/1 (March 2015): 9-51.
40. Hodgkinson and Clarke, op. cit.; A. M. Isen, "Some Ways in Which Positive Affect Influences Decision Making and Problem Solving," in *Handbook of Emotions*, ed. M. Lewis, J. M. Haviland-Jones, and L. Feldman Barrett (New York, NY: Guilford Press, 2008), pp. 548-573.
41. D. A. Shepherd and M. S. Cardon, "Negative Emotional Reactions to Project Failure and the Self-Compassion to Learn from the Experience," *Journal of Management Studies*, 46/6 (September 2009): 923-949.
42. J. J. Gross, "Emotion Regulation: Affective, Cognitive, and Social Consequences," *Psychophysiology*, 39/3 (May 2002): 281-291.
43. Karlsson, Loewenstein, and Seppi, op. cit.
44. For a review of the evidence for reappraisal, see Gross (2002), op. cit. For discussions of emotional reframing in strategy, see T. C. Powell, "Neurostrategy," *Strategic Management Journal*, 32/13 (December 2011): 1484-1499; T. C. Powell and N. M. Puccinelli, "The Brain as Substitute for Strategic Organization," *Strategic Organization*, 10/3 (August 2012): 207-214. For a practical illustration of using the affective circumplex model for this purpose, see Hodgkinson, Wright, and Anderson, op. cit.

45. Isen, Daubman, and Nowicki, op. cit.; Huy (2005), op. cit.
46. I. L. Janis and L. Mann, *Decision Making: A Psychological Analysis of Conflict, Choice, and Commitment* (New York, NY: Free Press, 1977).
47. For a case illustration of how decisional stress can undermine strategic adaptation, see G. P. Hodgkinson and G. Wright, "Confronting Strategic Inertia in a Top Management Team: Learning from Failure," *Organization Studies*, 23/6 (November 2002): 949-977.
48. P. G. Audia, E. A. Locke, and K. G. Smith, "The Paradox of Success: An Archival and a Laboratory Study of Strategic Persistence Following Radical Environmental Change," *Academy of Management Journal*, 43/5 (October 2000): 837-853.
49. Hodgkinson and Healey (2011), op. cit.
50. C. M. Christensen, *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail* (Boston, MA: Harvard Business Review Press, 1997); R. Henderson, "The Innovator's Dilemma as a Problem of Organizational Competence," *Journal of Product Innovation Management*, 23/1 (January 2006): 5-11.
51. S. Finkelstein, J. Whitehead, and A. Campbell, *Think Again: Why Good Leaders Make Bad Decisions* (Boston, MA: Harvard Business Press, 2008).
52. B. M. Staw, "The Escalation of Commitment to a Course of Action," *Academy of Management Review*, 6/4 (October 1981): 577-587; D. J. Sleesman, D. E. Conlon, G. McNamara, and J. E. Miles, "Cleaning Up the Big Muddy: A Meta-Analytic Review of the Determinants of Escalation of Commitment," *Academy of Management Journal*, 55/3 (June 2012): 541-562.
53. G. Ku, "Learning to De-Escalate: The Effects of Regret in Escalation of Commitment," *Organizational Behavior and Human Decision Processes*, 105/2 (March 2008): 221-232; K. F. Wong, M. Yik, and J. Y. Kwong, "Understanding the Emotional Aspects of Escalation of Commitment: The Role of Negative Affect," *Journal of Applied Psychology*, 91/2 (March 2006): 282-297.
54. K. Ochsner, R. D. Ray, J. C. Cooper, E. R. Robertson, S. Chopra, J. D. E. Gabrieli, and J. J. Gross, "For Better or for Worse: Neural Systems Supporting the Cognitive Down- and Up-Regulation of Negative Emotion," *Neuroimage*, 23/2 (October 2004): 483-499.
55. M. Zeelenberg, W. W. van Dijk, J. Van der Pligt, A. S. R. Manstead, P. Van Empelen, and D. Reinderman, "Emotional Reactions to the Outcomes of Decisions: The Role of Counterfactual Thought in the Experience of Regret and Disappointment," *Organizational Behavior and Human Decision Processes*, 75/2 (August 1998): 117-141; Wong et al., op. cit.; K. F. E. Wong and J. Y. Y. Kwong, "The Role of Anticipated Regret in Escalation of Commitment," *Journal of Applied Psychology*, 92/2 (March 2007): 545-554.
56. Recent studies in the laboratory (Ming-Hong and Young 2010) and field (Vuori and Huy 2015, op. cit.) point to these effects. T. Ming-Hong and M. J. Young, "Anger, Fear, and Escalation of Commitment," *Cognition and Emotion*, 24/6 (2010): 962-973; Vuori and Huy (2015), op. cit.
57. Hodgkinson and Healey (2011), op. cit.
58. G. F. Loewenstein, E. U. Weber, C. K. Hsee, and N. Welch, "Risk as Feelings," *Psychological Bulletin*, 127/2 (March 2001): 267-286; P. Slovic, M. L. Finucane, E. Peters, and D. G. MacGregor, "Risk as Analysis and Risk as Feelings: Some Thoughts about Affect, Reason, Risk, and Rationality," *Risk Analysis*, 24/2 (April 2004): 311-322.
59. D. Kahneman and D. Lovallo, "Timid Choices and Bold Forecasts: A Cognitive Perspective on Risk Taking," *Management Science*, 39/1 (January 1993): 17-31; D. De Cremer, *The Proactive Leader: How to Overcome Procrastination and Be a Bold Decision-Maker* (Basingstoke, UK: Palgrave Macmillan, 2013).
60. K. M. Eisenhardt, "Strategy as Strategic Decision Making," *MIT Sloan Management Review*, 40/3 (Spring 1999): 65-72.
61. A. R. Damasio, *Descartes' Error: Emotion, Reason, and the Human Brain* (New York, NY: Putnam, 1994); Loewenstein, Weber, Hsee, and Welch (2001), op. cit.
62. See, for example, P. Schwartz, *The Art of the Long View* (New York, NY: Doubleday, 1991); K. van der Heijden, *Scenarios: The Art of Strategic Conversation* (Chichester, UK: John Wiley, 1996).
63. P. J. H. Schoemaker, "Scenario Planning: A Tool for Strategic Thinking," *MIT Sloan Management Review*, 36/2 (Winter 1995): 25-40; M. P. Healey and G. P. Hodgkinson, "Troubling Futures: Scenarios and Scenario Planning for Organizational Decision Making," in *Oxford Handbook of Organizational Decision Making*, ed. G. P. Hodgkinson and W. H. Starbuck (Oxford, UK: Oxford University Press, 2008), pp. 565-585.
64. *The New York Times*, "Innovation," March 24, 2014, https://www.scribd.com/doc/224608514/The-Full-New-York-Times-Innovation-Report.

65. C. Argyris, *Overcoming Organizational Defenses* (Boston, MA: Allyn & Bacon, 1990); C. Argyris, *Strategy, Change and Defensive Routines* (Southport, UK: Pitman Publishing, 1985).
66. Argyris (1990), op. cit.; Huy (2002), op. cit.
67. J. O. Huff, A. S. Huff, and H. Thomas, "Strategic Renewal and the Interaction of Cumulative Stress and Inertia," *Strategic Management Journal*, 13/S1 (Summer 1992): 55-75.
68. B. E. Ashforth and F. Mael, "Social Identity Theory and the Organization," *Academy of Management Review*, 14/1 (January 1989): 20-39; H. Bouchikhi and J. R. Kimberly, "Escaping the Identity Trap," *MIT Sloan Management Review*, 44/3 (Spring 2003): 20-26.
69. Reger and colleagues suggested that when the gap between the prevailing organizational identity and planned change is neither too narrow nor too wide, change falls within a zone of acceptance. See R. K. Reger, L. T. Gustafson, S. M. Demarie, and J. V. Mullane, "Reframing the Organization: Why Implementing Total Quality Is Easier Said than Done," *Academy of Management Review*, 19/3 (July 1994): 565-584. Strength of identification often varies across different divisions, departments, and hierarchical levels of the organization. See, for example, C. M. Fiol, "Consensus, Diversity, and Learning in Organizations," *Organization Science*, 5/3 (August 1994): 403-420; M. S. Cole and H. Bruch, "Organizational Identity Strength, Identification, and Commitment and Their Relationships to Turnover Intention: Does Organizational Hierarchy Matter?" *Journal of Organizational Behavior*, 27/5 (August 2006): 585-605.
70. Hodgkinson and Wright (2002), op. cit.
71. C. M. Steele, "The Psychology of Self-Affirmation: Sustaining the Integrity of the Self," *Advances in Experimental Social Psychology*, 21 (1988): 261-302.
72. D. K. Sherman and G. L. Cohen, "Accepting Threatening Information: Self-Affirmation and the Reduction of Defensive Biases," *Current Directions in Psychological Science*, 11/4 (August 2002): 119-123.
73. N. Sivanathan, D. C. Molden, A. D. Galinsky, and G. Ku, "The Promise and Peril of Self-Affirmation in De-Escalation of Commitment," *Organizational Behavior and Human Decision Processes*, 107/1 (September 2008): 1-14.
74. A. Gawer and N. Phillips, "Institutional Work as Logics Shift: The Case of Intel's Transformation to Platform Leader," *Organization Studies*, 34/8 (August 2013): 1035-1071.