

TALL STEPS, SLIPPERY SLOPES & LEARNING CURVES IN THE BEHAVIORAL ECONOMICS OF MERGERS AND ACQUISITIONS¹

ERIC SUNDSTROM²

I. INTRODUCTION

This paper offers a perspective from psychology on Donald Langevoort's paper, *The Behavioral Economics of Mergers and Acquisitions*.³ After briefly introducing my field, I will address two themes, "tall steps" and "slippery slopes," then discuss avenues to explore for the future, which I call learning curves, and offer a few conclusions. I leave the legal implications of mergers and acquisitions ("M&A") to the other discussant, Joan Heminway.⁴

Much of my research in organizational psychology has focused on work groups and their effectiveness. That research led me to the related field of organizational behavior and, more recently, to behavioral economics. I have worked as a consultant to five CEOs involved in decisions on mergers and/or acquisitions.

II. KEY THEMES: TALL STEPS & SLIPPERY SLOPES

Langevoort's first major theme, "tall steps,"⁵ concerns the arguments to overcome in making a convincing case for cognitive bias and psychological processes that undermine rationality in decisions about M&A. The height of the steps reflects the difficulty of arguing successfully against the "rational actor model"⁶ that dominates today's thinking in corporate and securities law in favor of the "bounded rationality"⁷ described in psychology and related fields.

A second theme, "slippery slopes," refers to the path that leads from psychological processes that undermine rationality, such as overconfidence and hubris,⁸ to undesirable outcomes for firms involved in M&A, including "excessive risk-taking and concealment of those risks from investors."⁹

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² Professor, Department of Psychology, Austin Peay Building #303, University of Tennessee, Knoxville, 37916. E-mail: esundstr@utk.edu.

³ See generally Donald C. Langevoort, *The Behavioral Economics of Mergers and Acquisitions*, 12 TRANSACTIONS: TENN. J. BUS. L. 65 (2011) (exploring the relationship between psychology and corporate and securities law).

⁴ Joan MacLeod Heminway, *A More Critical Use of Fairness Opinions as a Practical Approach to the Behavioral Economics of Mergers and Acquisitions*, 12 TRANSACTIONS: TENN. J. BUS. L. 81 (2011).

⁵ Langevoort, *supra* note 3, at 66.

⁶ *Id.* at 65.

⁷ See generally D. Kahneman, *A Perspective on Judgment and Choice: Mapping Bounded Rationality*, 58 AM. PSYCHOL. 697 (2003) (discussing decision-making processes). See also D. Kahneman & A. Tversky, *Choices, Values, and Frames*, 39 AM. PSYCHOL. 341 (1984).

⁸ Langevoort, *supra* note 3, at 70-71.

⁹ *Id.* at 78.

Understanding the elusive connections – specifically when and how psychological processes create slippery slopes to adverse outcomes in M&A – could represent a third theme, aptly summed up in a phrase from the title of one of Langevoort's recent papers: "...chasing the greased pig."¹⁰

Recent findings from psychology and related fields suggest ways in which the slopes can become slippery and ways to make the steps less tall. I will identify extensions and questions for each of the four steps in turn. Briefly, the steps refer to: 1) situational factors in biased, individual decision-making; 2) personality factors in irrational decisions; 3) institutional features of organizations, including "de-biasing" influences; and 4) the normative question – "so what?" – which may point toward interventions.

A. Situational Factors in Biased, Individual Decision-Making

Recent research from behavioral economics may offer help with the first step by identifying situational factors consistently related to sources of cognitive bias and enabling more robust behavioral predictions than in the past. Dan Ariely's book *Predictably Irrational*¹¹ reports several studies that found situational variables associated with sources of cognitive errors, involving both distorted perceptions and biased decisions. For example, in the "decoy effect," a form of perceptual anchoring, the presence of a higher-priced third option made a medium-priced option more attractive than when it represented one of only two options. Another experiment demonstrated an expectation effect, familiar in the psychology of perception, in which individuals misperceived ambiguous events consistent with what they expected. These and other studies summarized in *Predictably Irrational* point to identifiable circumstances under which cognitive biases become relatively likely.

Evidence linking irrational decisions in organizations to situational factors comes from a new study of corporate illegality published this year in *ACADEMY OF MANAGEMENT JOURNAL*, one of the top journals of management.¹² Researchers predicted the greatest illegality under conditions of high external expectations based on above-average stock performance, and high "social aspirations" based on peer firms' financial performance. They obtained reports of 469 incidents of corporate fraud, environmental violations, false claims, and anti-competitive violations from 1990 through 1999. They also obtained records of stock prices and returns on investments for the 194 *S&P 500* firms involved. After accounting for control variables based on firms' characteristics, results supported the hypothesis linking corporate illegality with high social aspirations. The study also found, only for prominent firms, the predicted correlation of corporate illegality with high expectations based on abnormally high performance.

Recent work expands the list of sources of irrational decisions in organizations to include what could be called "inferential bias." For example, a 2007 book by Phil Rosenzweig¹³ describes eight "delusions that deceive managers," including the "halo effect," a familiar tendency to over-generalize evaluations to include attributes beyond those directly

¹⁰ Donald C. Langevoort, *Chasing the Greased Pig Down Wall Street: A Gatekeeper's Guide to the Psychology, Culture and Ethics of Financial Risk-taking*, CORNELL L. REV. (forthcoming 2011).

¹¹ DAN ARIELY, *PREDICTABLY IRRATIONAL: THE HIDDEN FORCES THAT SHAPE OUR DECISIONS* (2008).

¹² Yuri Mishina et al., *Why "Good" Firms Do Bad Things: The Effects of High Aspirations, High Expectations, and Prominence on the Incidence of Corporate Illegality*, 53 *ACAD. OF MGMT. J.* 701 (2010).

¹³ PHIL ROSENZWEIG, *THE HALO EFFECT ... AND THE EIGHT OTHER BUSINESS DELUSIONS THAT DECEIVE MANAGERS* (2007).

observed. Another inferential bias involves "the delusion of single explanations," or attributing company performance to one factor instead of the multitude of factors likely involved. Such faulty analysis of information about businesses, along with over-interpretation of media stories, could help lead to misperceptions of company value, performance, future potential market share, and other key elements in M&A. Potential sources of bias in individual decisions also include interpersonal influences, for instance in relationships with co-workers, competitors, and customers. A review of research on strategic decision-making in organizations identifies coalitions as a key source of influence.¹⁴

In sum, recent research from psychology reinforces the sources of cognitive bias that Langevoort cited, and suggests others, including expectation effects, inferential bias, and coalitions. However, this does little to change the bottom line for the first tall step. Available evidence continues to point to predictable, situational influences that can increase the likelihood of irrational individual decisions. When executives participating in decisions about M&A find themselves in certain circumstances, the evidence suggests that they may become more likely to make decisions with predictable irrationality.

B. *Personality Factors in Irrational Decisions*

As for the second tall step, concerning the role of personality in irrational decisions, Langevoort cites substantial evidence for two traits of executives related to cognitive bias. The first, hubris, refers to a "winner's curse that arises out of any auction-like setting because the winner will, by definition, have the most optimistic valuation of the asset in question."¹⁵ The second, over-confidence, "leads to diminished risk perception"¹⁶ among executives and other decision-makers.

Recent research on the so-called "dark side" of leadership points to other personality traits of executives that may contribute to decisions associated with destruction of value or failure in M&A. A classic article proposes that leaders' incompetence derives more from having undesirable traits than from lacking desirable ones, and presents evidence that dysfunctional qualities of leaders include tendencies to "blow up, show off, or conform when under pressure."¹⁷

Traits associated with relatively poor performance by leaders in a recent empirical study included: abrasiveness in interpersonal relationships; disorganization or inattentiveness to detail and follow-through; and conflict avoidance.¹⁸ A possible example arose in the merger of Chrysler and Daimler-Benz, in which Chrysler's CEO, Eaton, arguably showed all three of these traits.¹⁹ Eaton made a series of questionable, individual decisions, apparently after little consultation with the executive team. The critical decision to start a joint venture

¹⁴ See R. N. Taylor, *Strategic Decision Making* (1992) in 3 HANDBOOK OF INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY 961, 979-80 (M. D. Dunnette & L. M. Hough eds., 2d ed. 1995).

¹⁵ Langevoort, *supra* note 3, at 71.

¹⁶ *Id.*

¹⁷ R. Hogan & J. Hogan, *Assessing Leadership: A View From the Dark Side*, 9 INT'L J. SELECTION & ASSESSMENT 40, 50 (2001).

¹⁸ S. Bartholomew Craig et al., *Leadership in University-Based Cooperative Research Centres: A qualitative investigation of performance dimensions*, 23 INDUSTRY & HIGHER EDUC. 367-77 (October 2009).

¹⁹ BILL VLASIC & BRADLEY A. STERTZ, TAKEN FOR A RIDE: HOW DAIMLER-BENZ DROVE OFF WITH CHRYSLER (2000).

with Daimler-Benz (making parts for BMW) contradicted well-founded objections by a knowledgeable, senior executive at Chrysler. How Eaton's personality influenced decisions in the failed merger remains unknown, but begs the question: What personality traits foster irrational individual decisions by leaders, through what dynamics? The "dark side" research points to traits that could contribute to biased decisions and/or isolate or alienate a leader from advisors who might clarify the options and their consequences.

Another recent, empirical study in the computer industry offers some limited clues about the potential role of dark side personality traits of CEOs in acquisitions.²⁰ Among 105 firms, a composite observational index of each CEO's narcissism correlated significantly with both the number and size of acquisitions by the firm, and with the extremity of fluctuations in return on assets and total shareholder returns, from 1992 through 2004. However, firm revenues correlated positively with CEO narcissism.

In brief, recent research from psychology adds evidence linking biased decisions with personality traits other than hubris and over-confidence, and points to interpersonal dynamics that might isolate leaders from advice that could counter cognitive bias. This research seems to make Langevoort's second step in the case for irrational decisions less tall.

C. *Institutional Factors, Individual Decisions, & Corporate Decisions*

The third step in a convincing argument for irrational individual decision-making concerns characteristics of institutions as organizations, which can mitigate or magnify the impact of individual, cognitive biases. Langevoort points out that important, corporate decisions tend to involve not just individual executives, but multiple decision-makers in sequential processes, often including group collaboration.²¹ Such institutional processes affect whether, and how, an executive's biased decision as an individual translates into a decision for the firm. Langevoort accurately notes that "psychology itself stops being concretely helpful once we pass small group behavior"²² to examine such institutional factors.

Psychologists of the 1970s did offer a general theory about the interfaces of individuals with organizations, focused on roles (specific, behavioral expectations of individuals in particular combinations of specialty and rank in a hierarchy of authority) and systems comprised of those roles.²³ The systems theory of organizations by Katz and Kahn incorporated empirical evidence, available at the time, concerning features of organizational structure and process linking individual behavior to organizational outcomes.²⁴

The systems approach to organizations continued to develop after the 1970s – not in psychology, but in the emerging field of organizational behavior, where a huge and growing literature of empirical findings²⁵ and theory²⁶ has accumulated about the structure,

²⁰ A. Chatterjee & D. C. Hambrick, *It's All About Me: Narcissistic Chief Executive Officers and Their Effects on Company Strategy and Performance*, 52 ADMIN. SCI. Q. 351 (2007).

²¹ Langevoort, *supra* note 3, at 66.

²² *Id.* at 67.

²³ See, e.g., EDGAR H. SCHEIN, ORGANIZATIONAL PSYCHOLOGY 196-99 (3d ed. 1980); HANDBOOK OF INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY 1201-45 (Marvin D. Dunnette ed., 1976).

²⁴ DANIEL KATZ & ROBERT L. KAHN, THE SOCIAL PSYCHOLOGY OF ORGANIZATIONS 17-34 (2d ed. 1978).

²⁵ E.g., JERALD GREENBERG & ROBERT A. BARON, BEHAVIOR IN ORGANIZATIONS (9th ed. 2008).

²⁶ E.g., RICHARD L. DAFT, ORGANIZATION THEORY AND DESIGN (10th ed. 2010).

processes, and design of organizations. Langevoort cites a source from this literature describing collective "de-biasing factors"²⁷ that potentially reduce or eliminate cognitive bias in individual decision-making. These factors refer to informal rules and routines as well as formal procedures, like assigning someone the role of devil's advocate, which may or may not fit with an executive's role, the norms of the executive team, or the organization's culture.

Applying systems theory to understand decision-making in M&A calls for a focus on the CEO's role in the organization's structure. Public descriptions of their roles by a few CEOs point to the potential complexity and variety of expectations their role can include.²⁸ A study in large private-sector firms reported differences in many features of the CEO's role.²⁹ Related questions concern the size, composition, reporting relationships, and practices in the executive team, as well as the role(s) of advisor(s) and consultant(s) to the CEO.

Similarly critical to corporate decisions is the role of the board of directors ("BOD"). Current research points to wide variation in BOD sizes, compositions, proportions of outside directors, structural features, processes, CEO interfaces, and relationships of these factors with firm performance.³⁰ The research offers few clues about the influence of the BOD in the pathways from executive decisions to critical corporate decisions, but does raise some questions. For example: Can smaller, more independent BODs exert more effective oversight? And, to what extent does CEOs' influence on BODs' processes diminish the effectiveness of BOD oversight, and allow cognitive biases to affect firms' decisions? Other questions also arise.

The potential for organizational features to counter individual cognitive bias in corporate decision-making does nothing to change the facts about irrational decisions by firms.³¹ Langevoort cites persuasive evidence that many M&A decisions have injured shareholders' interests and destroyed value in the organizations involved. Institutional factors obviously did not "de-bias" these decisions, and pose no obstacle to Langevoort's third step in the case for irrational decision-making. Institutional features do, however, present avenues for intervention toward effective decision-making, which is the fourth step.

D. *The Normative Question: A Basis for Intervention?*

In addressing the normative question about irrational M&A decisions – "So what?" Langevoort considers the prospects for legal interventions involving regulation as a vehicle for improved decisions, and arrives at no definite answer. A psychologist's perspective involves different vehicles for intervention: organization structure and design; organization

²⁷ Chip Heath et al., *Cognitive Repairs: How Organizational Practices Can Compensate for Individual Shortcomings*, 20 RES. ORG. BEHAV. 1 (1998).

²⁸ See, e.g., LARRY BOSSIDY & RAM CHARAN, EXECUTION: THE DISCIPLINE OF GETTING THINGS DONE 1-6 (2002); BILL GEORGE, AUTHENTIC LEADERSHIP: REDISCOVERING THE SECRETS TO CREATING LASTING VALUE 91-99 (2003).

²⁹ JIM COLLINS, GOOD TO GREAT: WHY SOME COMPANIES MAKE THE LEAP... AND OTHERS DON'T (2001).

³⁰ See OLIVER P. ROCHE, CORPORATE GOVERNANCE & ORGANIZATION LIFE CYCLE: THE CHANGING ROLE AND COMPOSITION OF THE BOARD OF DIRECTORS (2009); Sanjai Bhagat & Bernard Black, *The Non-Correlation Between Board Independence and Long-Term Firm Performance*, 27 J. CORP. L. 231 (2002); Shaker A. Zahra & John A. Pearce II, *Boards of Directors and Corporate Financial Performance: A Review and Integrative Model*, 15 J. MGMT. 291 (1989).

³¹ See, e.g., Mishina et al., *supra* note 12, at 701-722.

culture and learning; executive team composition, design, and development; leadership role definition and clarification; executive consultation and coaching; and management education and training. My remaining questions ask, how best to intervene, and with what urgency?

From the psychologist's perspective, sound intervention requires foundation in scientific knowledge, reflecting a so-called "scientist-practitioner approach."³² As outlined in Langevoort's analysis, and in my comments, current knowledge points to a variety of psychological, interpersonal, and organizational processes that can prompt irrational decisions by individual executives and others that allow or promote their translation into flawed corporate decisions. If these processes place executives, their teams, and their organizations on slippery slopes, they present learning curves at least as steep.

III. LEARNING CURVES AHEAD

Executives responsible for leading today's organizations face three sets of learning curves for effective decision-making: individual, team, and organizational. The ones for individuals are most clearly defined and thoroughly studied.

A. *Individual Learning Curves*

A review of 50 years of research on individual decision-making³³ suggests that today's decision makers are receptive to learning to improve their decisions. The review identifies many sources of cognitive bias and evaluates approaches to learning to avoid them. The authors distinguish two decision processes: "System 1 refers to our intuitive system, which is typically fast, automatic, effortless, implicit, and emotional; System 2 refers to reasoning that is slower, conscious, effortful, explicit, and logical."³⁴ For executives involved in M&A decisions, relevant learning involves both of these processes. Intuitive processes can reflect hubris-related errors, like overvaluing assets; expectancy errors, like perceiving only what was anticipated; and so on. Deliberative processes, like applying pricing algorithms, can incorporate perceptual errors along with other kinds of mistakes, such as overlooking available options, omitting data sources, over-estimating accuracy of information, etc.³⁵

After 25 years of research on training in decision-making, the evidence suggests that only one approach has yielded more than "minimal success, and even intensive, personalized feedback produced only moderate improvements in decision making."³⁶ This result carries two implications for executive learning curves: 1) individual effectiveness calls for personal learning from intensive, personalized feedback (the individual learning curve); and 2) effective decision-making for the organization involves at least multiple collaborators (group or team decisions) and possibly organizational processes.

³² FRANK J. LANDY & JEFFREY M. CONTE, *WORK IN THE 21ST CENTURY: AN INTRODUCTION TO INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY* 11-12 (3d ed. 2010).

³³ Katherine L. Milkman et al., *How Can Decision Making Be Improved?*, 4 *PERSP. ON PSYCHOL. SCI.* 379-383 (2009).

³⁴ *Id.* at 380.

³⁵ See Tommy Gärling et al., *Psychology, Financial Decision Making, and Financial Crises*, 10 *PSYCHOL. SCI. PUB. INT.* 1 (2009).

³⁶ Milkman et al., *supra* note 33, at 380.

B. *Team Learning Curves*

For the senior leadership groups most critical to corporate decisions about M&A, the CEO's executive team and the BOD, the relevant learning curve concerns teamwork in general, and effective group decision-making in particular. To the extent that these groups consciously decide to collaborate as teams,³⁷ they can draw on a huge research literature for guidance.³⁸ The research suggests, among other things, that teams who actively work toward collective learning, and who introduce specific improvements in their interaction processes in nine specific areas, can improve their performance.³⁹ My experience similarly suggests that executive teams and BODs, who take time to explicitly evaluate their own teamwork, and to openly discuss how to improve it, can avoid many of the pitfalls that Langevoort describes.

C. *Organization Learning Curves?*

Can entire organizations learn collective processes for effective decisions? We have a limited basis for optimism that organizations can achieve synergy in decisions about M&A.⁴⁰ As for processes of organizational change after a merger or acquisition, the research literature on organizational behavior and theory has much to offer.⁴¹ How well the organizations of the future can assimilate and apply this rapidly expanding knowledge remains to be seen.

IV. CONCLUSIONS

Three conclusions follow from this review of 1) sources of cognitive bias in executive decision-making, 2) the "slippery slope" to flawed corporate decisions, and 3) adverse outcomes for firms involved in M&A and their shareholders. First, recent research from psychology adds to the already ample basis for Langevoort's persuasive argument against the "rational actor model" in favor of bounded rationality in decision-making. Second, we need better maps of the boundaries of irrational influences on decision-making, their underlying processes, and institutional features that can mitigate them. Third, for today's executive leaders and their organizations, the boundaries on rationality point toward learning curves at least as steep as the slippery slopes on the way to effective decision-making in the future.

³⁷ See RUTH WAGEMAN ET AL., SENIOR LEADERSHIP TEAMS: WHAT IT TAKES TO MAKE THEM GREAT 1-55 (2008).

³⁸ See generally John Mathieu et al., *Team Effectiveness 1997-2007: A Review of Recent Advancements and a Glimpse Into the Future*, 34 J. MGMT. 410 (2008) (selective, narrative review of research on groups and teams).

³⁹ Jeffery A. LePine et al., *A Meta-Analysis of Teamwork Processes: Tests of a Multidimensional Model and Relationships with Team Effectiveness Criteria*, 61 PERSONNEL PSYCHOL. 273-307 (2008).

⁴⁰ See, e.g., J. Myles Shaver, *A Paradox of Synergy: Contagion and Capacity Effects in Mergers and Acquisitions*, 31 ACAD. MGMT. REV. 962-976 (2006).

⁴¹ See, e.g., RICHARD L. DAFT, ORGANIZATION THEORY AND DESIGN 159-60 (10th ed. 2010).