State of Mind and the Global Financial Crisis

Donald C. Langevoort*

The global financial crisis that began in 2007 is still only dimly understood, which makes it difficult to write about how to prevent the next one with any confidence. To be sure, we have a familiar narrative that begins with the increasing aggressiveness with which subprime mortgages were sold, mainly in the U.S., to home buyers who could not afford them in terms of traditional creditworthiness. These mortgages were quickly transferred, bundled and recreated as financial instruments that were sold to global institutional investors who were seeking what appeared to be safe dollar-denominated assets, satisfying a world-wide thirst for such investments. These instruments gradually became more complex, with different tranches that could themselves be recombined and highly levered. As the available supply of actual mortgages hit natural limits, synthetic derivatives (structured as if they contained the mortgages, but only as a reference) soon became commonplace, which allowed both the volume of transactions and the leveraging to increase exponentially. When the illusion of safety was challenged by a sudden drop in housing prices, the value of these opaque assets as well as many other financial instruments went into free-fall, a flood of supply driven by margin calls and regulatory capital requirements but buyers few and far between. The resulting liquidity crisis—much more than the drop in market value of the subprime mortgages themselves—is what destroyed or weakened banks and financial institutions around the world and required such massive governmental intervention, from which we have not yet recovered.1

* Thomas Aquinas Reynolds Professor of Law, Georgetown University Law Center, Washington, D.C., U.S.A. Copyright 2012, Donald C. Langevoort. This is a working paper: do not quote without author’s permission.

1 See Frederick Mishkin, Over the Cliff: From the Subprime to the Global Financial Crisis, 25 J. ECON. PERSPECTIVES 49 (Winter 2011).
This narrative framework, however, does not tell us who is to blame for this mess, other than to hint that blame is likely to be broadly diffused among many market participants and regulators. As a socio-legal matter, the hotly debated question is whether there was culpability on the part of the key “middlemen” in this process, the mortgage originators, banks and securities firms that performed the financial alchemy to distribute so much risk into so many investment portfolios. There have been scores of criminal and civil cases brought against various participants, many of which are still pending, but the payoffs so far are relatively meager given the vastness of the financial harm. Goldman Sachs may have paid $550 million in penalties for its alleged misrepresentations to the German bank IKB and others in the infamous “Abacus” transaction, but even that amount is tiny when placed in larger context. The ex post response to this crisis hardly seems to send much of a deterrence signal for next time financial temptations like this emerge, as they almost surely will.

As a result, most of the contemporary debate about regulatory reform is focused on what new strategies can be employed ex ante to prevent the next crisis. As to the perceived lack of will or ability to sanction participants in the last crisis, there is a great deal of popular frustration, to be sure. Academics, on the other hand, have paid relatively less attention to ex post enforcement issues, other than to acknowledge that these cases must be especially challenging for prosecutors because of their scale and complexity. Whether the public interest has been well served remains an open question.

I have written a fair amount already—as have others about risk-taking in the events leading up to and through the onset of the crisis,

---

2 See SEC Litig. Release 21592 (July 15, 2010).
3 See Clock is Ticking on Crisis Charges, WALL ST. J., July 12, 2012 at C1.
particularly the psychological and cultural dimensions. In this paper, I address the possible misfit between a psychologically and culturally realistic assessment of being “in the moment” during the crucial events that might later be the subject of criminal prosecution or civil enforcement, and the legal standards employed to adjudge responsibility. The latter has both a doctrinal dimension and a psychological and cultural one, because legal responsibility is determined in hindsight, by judges or jurors who both know too much to effectively put themselves back in the moment in time. It is mainly the doctrinal dimension that I want to explore here, because the doctrine offers us a set of standards that seem psychologically naïve, maybe dysfunctional. State of mind questions with respect to both individual and corporate culpability in the world of finance become more and more interesting the deeper we dig into recent events and scandals.

To gain traction here, we will have to simplify considerably. Just from my thumbnail sketch of the global financial crisis, we can see many different variations to questions of culpability. First, there are three very different clusters of possible “victims,” none of whom are entirely lacking in their own potential blameworthiness. There were home buyers who took out (or were induced to take out) subprime mortgages that were later subject to foreclosure, with allegations of fraudulent misrepresentations, forged consents, mishandled filings and the like as the pace of mortgage origination became so frenzied. At the other end of the chain were the buyers of the complex financial products, mainly financial institutions, who ultimately ended up holding the risk and suffering as a result. And finally there were shareholders of the big investment banks, who sold off some of the risk, but not all of it, and so suffered financially as well.6

Of these, my expertise is mainly in the legal issues relating to the latter two categories of victims. For example, the SEC’s case against Goldman Sachs alleged unlawful misrepresentations and omissions about the nature of a counter-party’s involvement and incentives with respect to the synthetic derivative products in question. As to the final category, numerous cases have accused senior managers of the originating and distributing banks of misrepresenting the level of risk they were holding in their portfolios, or of not managing that risk in good faith, thereby

---

deceiving or harming their own investors. These cases mainly allege securities fraud under U.S. law, though there are many other possibilities (e.g., breach of fiduciary duty under state corporation law). The federal securities cases are my focus here.

I. THE LEGAL FRAMEWORK

The federal securities laws create causes of action for fraud that can be brought by (1) criminal prosecutors; (2) the SEC in the form of civil enforcement actions, seeking penalties, disgorgement and a variety of other forms of relief; and (3) purchasers and sellers of securities who are the victims of the fraud. The principal cause of action is under the SEC’s Rule 10b-5, although in government enforcement actions an alternative cause of action arises under Section 17(a) of the Securities Act of 1933, which has a looser state of mind standard. In SEC enforcement actions under Rule 10b-5, the SEC has the burden of proving, by a preponderance of the evidence, that there was (a) some form of deception; (b) in connection with the purchase or sale of a security; (c) that the deception was material; and (d) that the defendant acted with “scienter.” A private action under Rule 10b-5 requires the same showing, plus reliance and causal injury. A criminal prosecution under Rule 10b-5 has to meet the same standard as an SEC enforcement action plus a showing that the defendant’s conduct was willful, and the proof must be beyond a reasonable doubt.

For our purposes, the important element here is scienter, which remains a somewhat contested concept. By all accounts, scienter requires a showing that the defendant acted with intent to deceive, more than simple negligence. That the defendant should have known the truth, or could have known it in the exercise of due care, is—as a formal legal matter—not enough.

---

7 For a basic introduction and overview, see James D. Cox et al., Securities Regulation: Cases and Materials chs. 9, 12 (6th ed. 2009).
Still, intent to deceive is a fairly capacious state of mind category, and courts have accepted two kinds of behavior that satisfy the scienter standard. One, obviously, is when it is shown that the defendant was actually aware that what he or she was saying was untrue. As to this actual knowledge prong, intent and motive are generally thought to be different—it is the awareness of the falsity that is important, not the reason why the defendant was lying (in other words, even a lie motivated in good faith by a desire to help the company and its shareholders would be actionable).

The alternative is recklessness. The law is somewhat confusing as to what recklessness means, but in recent years there has been a trend toward requiring the plaintiff or prosecutor to show a subjective form of recklessness that is more than just an extreme departure from ordinary care. The defendant must have been aware of a palpable risk that what he or she was saying was untrue—the most quoted phrase asks whether there was “an extreme departure from the standards of ordinary care [presenting] a danger of misleading buyers or sellers which is either known to the defendant or is so obvious that the defendant must have been aware of it.”10 The key is the awareness of the risk of misleading investors, even if the defendant does not know what the truth actually is. Here we see the most obvious connection to the psychology of risk taking, which we will take up in the next two sections.

Scienter is necessary, but not sufficient for liability—there are many cases where managers are aware of undisclosed facts about the company but avoid liability because there is no duty to disclose, or because what they disclose is too general or vague (e.g., “puffery”, as in general statements of optimism) for any investor reasonably to rely upon—essentially, a materiality conclusion.11 A number of recent decisions have specifically insisted that the claims of scienter and materiality be connected by the plaintiffs, showing that the actor accused of fraud appreciate that what he or

---


11 See COX ET AL., supra, at 606-09, 991-94.
she knows would change investors’ perceptions about the firm’s prospects.  

Most securities fraud actions are brought against organizational defendants (corporations, limited liability companies, etc.) in addition to, and sometimes even rather than, individual wrongdoers. An action against a corporation under Rule 10b-5 requires scienter, which must attach via attribution of the knowledge or recklessness from one or more of its agents. By and large, courts have resisted efforts to attribute all the knowledge diffused among corporate agents to the corporation itself, so that there is generally some insistence that the plaintiff identify at least one agent who both bore responsibility for the deceptive communication and acted with scienter.  

There are some variations on all this that can affect litigation outcomes. In a criminal prosecution, as noted above, there is an additional “willfulness” requirement. Some courts have interpreted willfulness to require some kind of “awareness of wrongdoing” separate and distinct from the scienter itself, though as recklessness takes on more of a subjective dimension, precisely what this adds is unclear. In a private action under Rule 10b-5, plaintiffs must at the pleading stage (i.e., before any court-mandated discovery) already have enough facts in their complaint to give rise to a strong inference of scienter. This heightened pleading requirement was added to the law by Congress to reflect the politicized concern that many private actions were being brought mainly for their settlement value, rather than because the merits supported plaintiffs’ claim. Indeed, judicial skepticism about aggressive private securities litigation has led to more conservative interpretations to the law, which occasionally spill over to affect public enforcement as well.

---

12 E.g., Inter-Local Pension Fund v. Waters Corp., 632 F.3d 751 (1st Cir. 2011).
13 See Southland Sec. Corp. v. INSpire Ins. Solutions Inc., 365 F.3d 353, 366 (5th Cir. 2004).
14 See Buell, supra.
Public enforcers (the SEC and criminal prosecutors) do not have to prove scienter, however, if they are willing instead to proceed under Section 17(a) of the Securities Act. There, negligence can suffice. In an SEC enforcement action, however, this comes at a possible price in terms of remedy. The SEC’s primary sanction is a civil penalty, and the penalty structure is “tiered” so that there is a baseline penalty for all violations, which are raised up to the highest level only if it is shown that the violation was fraudulent and caused substantial investor harm. Other significant penalties, such as an officer-director bar from further service, are effectively reserved for scienter-based wrongdoing as well.

II. THE PSYCHOLOGY AND CULTURE OF FINANCIAL RISK TAKING

Our task now is to take this legal template and test its fit to the psychology and culture of risk taking as experienced in the run-up to the financial crisis. The issue is an obvious one: did key actors in banks and other significant institutions have the kind of awareness that would satisfy the scienter requirement. In this world, nearly everything of importance could be characterized in risk-based terms—certainty being a rare commodity in such a dynamic environment—and so the recklessness prong would be the more likely to apply. Here again, what we would be looking for is an actual awareness or appreciation of significant danger outside the parameter of normal volatility of which reasonable investors or counterparties are on notice, and of which those investors have not adequately been warned.

This section will selectively catalog some of the most interesting research from the psychology of risk taking that suggests that people or institutions in a position to take risk will not—in the moment—experience it accurately. The inaccuracy can be in the form of sensing too much or too little risk, but it is the latter that is of greatest interest in regulatory terms in

---

17 The SEC’s settlement with Goldman Sachs, supra, was based solely on a Section 17(a) violation.
18 See COX ET AL., supra, at 819-20.
19 For a financial crisis case finding this test not satisfied, emphasizing the warnings and limitations of what was appreciated at the time, see Fulton County Employees Retirement System v. MGIC Investment Corp., 675 F.3d 1047 (7th Cir. 2012).
the aftermath of the crisis, and so that will be our focus here. For simplicity, we will for now focus on a hypothetical senior manager (HSM) of a financial firm whose job includes communicating the level of risk assumed by the firm to investors (as well as regulators and other stakeholders) via both mandatory disclosure documents (quarterly reports) and contacts with investment analysts and portfolio managers.

At this point we confront a host of disciplinary subdivisions from which we can draw, and so need to tread cautiously. Sociologists and cultural anthropologists would rightly point out that our HSM is embedded in a complex organization, and that his or her own perceptions are really an act of social construction. In other words, it is the shared sense-making about risk among those in a complex network of actors that is likely to be retransmitted, so that we should not too quickly assume that the internal processing of HSM’s brain is necessarily the appropriate level of inquiry in addressing risk perception.

The point is well taken, but at least as a matter of law the HSM’s particular state of mind is important. And other researchers push back and claim an important (if not exclusive) place for focus on the cognition of individual agents in assessing risk perception within organizations. I cannot hope to resolve this interdisciplinary tension, and hope to avoid it as much as possible by focusing on ways they interact coherently—institutional and psychological forces that predictably dampen the awareness of risk at the time. So we will be drawing from organizational behavior as well as cognitive neuroscience on the working assumption—on which I have elaborated elsewhere—that the people who rise to power and influence in a successful organization (and thus cluster at the top) are more likely to be those whose individual cognitive apparatus is synchronous with the institutional “grease” of shared beliefs and myths.

---

20 Donald C. Langevoort, *Opening the Black Box of “Corporate Culture” in Law and Economics*, 162 J. INST. & THEORETICAL ECON. 80 (2006); see also Langevoort, *Greased Pig*, supra.
A. Diffusion of Information and Responsibility

Even with respect to relatively certain information (e.g., subprime mortgages without valid signatures), that information may be diffused so widely within an organization that no one person—and certainly not someone in the upper managerial echelons—would have any solid awareness of its significance. Multiply by the extraordinary quantity of value-relevant information and the inability of anyone to perceive the “truth” about the organization’s enterprise risk becomes self-evident. And when we introduce ambiguity about both value and risk amidst this mountain of diffused information, the social and psychological construction of risk becomes inevitable.

To be sure, certain institutional practices—accounting and auditing, internal controls, management information systems, etc.—are explicitly designed to address this diffusion. But they are only partially successful in substituting for the subjective act of interpretation, and—by creating an illusion of scientific certainty to the representations of value and risk—actually have the potential to mislead.21

This much is largely uncontroversial, and probably the most powerful of the scienter defenses our HSM is likely to raise is that the “system” never delivered the awareness of risks necessary to appreciate the danger of misleading investors or counterparties. He or she was out of the loop, or a loop never formed to bring home the information to anyone. From our perspective, however, this just raises the question: why would such an absence of knowledge—in the face of overwhelming complexity—not be experienced as a palpable risk of ignorance that, in order to be truthful, would have to be communicated? In other words, why isn’t the managerial perception simply one of increased anxiety and uncertainty?

To be sure, neither markets nor other stakeholders want executives burdened by anxiety and uncertainty, and so such candor is likely to be discouraged. So maybe managers do sense the palpable dangers of hidden risk, so that outward expressions of confidence—and risk minimization—are indeed deceiving. The explanations in the sections that follow cast

21 See Kenneth Bamberger, Technologies of Compliance: Risk and Regulation in the Digital Age, 88 TEX. L. REV. 669 (2010); Miller & Rosenfeld, supra, at 809-10.
doubt on this, however, and instead suggest that there is a bias (individual and organizational) against the appreciation of this danger.

Most of these fall under the generic heading of self-serving, or motivated inference.\textsuperscript{22} That is, quite simply, that we are likely to perceive what we want to perceive. Disconfirming evidence is, preconsciously, ignored in favor of accounts that cohere with self-interest, broadly construed. Ample studies demonstrate the power of motivated inference, and we need go little beyond this to gain some traction with respect to financial risk-taking: in both individuals and organizations, denial can be a powerful force.

And while greed and desire can provide ample motivation for taking risks, an even more powerful force can come from the motivation to avoid loss. Once we gain something, we will take even bigger risks to preserve it against threat, a phenomenon that Rick and Loewenstein term “hypermotivation.”\textsuperscript{23} A stroke of good fortune, in other words, can raise expectations so that further developments that threaten to take away those gains will be resisted with an especially high degree of aggression.

B. Perceiving (and Resisting) Change

People may be fairly adept at perceiving change when the cues are salient enough, but poor when change is slow and gradual. This is especially true when we are busy, cognitively engaged (if not overloaded) in tasks that employ scripts and schemas to make sense of situations that are largely continuous. The familiar reference here—perhaps untrue as a natural matter—is that frogs will jump out of hot water in which they are placed, but boil to death when put in warm water where the temperature is then gradually raised. Cognitive psychology is filled with references

\textsuperscript{22} For recent book length treatments that focus on conflicts of interest and motivated inference, both with references to the global financial crisis, see DAN ARIELY, THE HONEST TRUTH ABOUT DISHONESTY (2012); MAX BAZERMAN & ANN TENBRUNSEL, BLIND SPOTS: WHY WE FAIL TO DO WHAT’S RIGHT AND WHAT TO DO ABOUT IT 66-76 (2011).

\textsuperscript{23} Scott Rick & George Loewenstein, Hypermotivation, 45 J. MKTG RES. 645 (2008).
various status quo biases, ways in which the mind anchors on an initial reference point and then refuses to adjust appropriately thereafter.\textsuperscript{24}

Some of this is purely perceptual, but it connects to phenomena like cognitive dissonance as well. Cognitive dissonance is the well-recognized tendency of the mind to interpret new information so as to maintain consistency with past choices, preserving the sense that those choices were justifiable rather than mistaken. In other words, once we voluntarily make a judgment about something—thereby committing ourselves to that view—we are motivated to see that as right and the mind will work to make it so, even if it involves ignoring or dismissing some inconvenient facts that might be troubling to someone without the prior commitment.

Business firms are marked by a high degree of both continuity and busyness. Managers with risk responsibilities have particular spheres and subjects of responsibility, and work to get done. When the initial encounter with a matter is benign—no red flags or serious warning signs—it becomes very easy to anchor on that perception, so that subsequent learning is biased toward confirming that “no worry” stance. The connection here to the story behind the financial crisis is worth emphasizing. Increased reliance on securitization and derivatives occurred very gradually from its starting point (roughly) in the 1990’s. Both product innovation and the step up in effort to find product—more and more subprime loans, and eventually the acceptance of synthetic portfolios that obviated the need for real loans, thereby expanding the degree of leverage exponentially—occurred without particular breakpoints that required de novo legal analysis. (It didn’t help that Congress and the regulators during this period tended to endorse prevailing practices through acquiescence or explicit deregulatory approval, as with the gradual demise of Glass-Steagall and the “leave it to the market” approach to over-the-counter derivatives).

What this meant was that our HSM caught up in the intensely busy work of securitization would probably start, with a schema that there was no particularly significant enterprise or legal risk associated with the innovations. Early on, the products were more moderate in their approach to risk, and generically cleared by regulators. Once that schema takes root,

then very small innovations in deal structure and how assets are identified are measured against the assumption of permissibility, even as these innovations gradually aggregate into significant changes over time. As a result, there was never a discrete point in time where what might have been appropriate before is palpably no longer appropriate. To blow the whistle now on any common practice or pattern of innovation would raise troubling questions about the prior months or years when the person had acquiesced in what was happening. The mind fights such inference.25

And here, the two kinds of psychological phenomena we have considered join together. As new managers come into the work to accommodate its increasing deal flow, they are likely to take their cues from others already there, who are visibly untroubled, committed and intense. Those cues invite conforming perceptions. Without the ammunition of critical feedback, the commitment to the course of action hardens, and the ability to think afresh about the enterprise risks diminishes.

This is all the more true if financial executives have a compressed time horizon in terms of what they pay attention to. Financial markets are fast-changing and unpredictable, making the long-run an imponderable and thus not worth the cognitive energy. At least until recently (and still to a great extent) compensation incentives are short-run. Karen Ho writes about how bankers become “synchronous” with the markets, putting out of mind anything that does not help them attend to the opportunities and demands of the moment.26 Risk-taking experimentalism becomes the norm, with immediate feedback alone determining where resources move.

C. Risk Evangelism and the Pathways to Power

Assume you have a large financial services firm heavily involved in financial innovation, i.e., the development and marketing of new products like complex securitizations and derivatives for the institutional and high-end retail marketplace. The pace of innovation is fast, and that competition among rivals (and among units within firms) is intense. Three managers—A, B and C—have the ability to say yes or no to a particular innovative strategy. A is a risk preferrer adept at buying into the chosen strategy, B is a risk hater more inclined to say no, and C is indecisive, a habitual worrier. Over a large number of iterations, who does best? If we assume that outcomes are generated evenly (that is, the system will offer an answer that either rewards or punishes, with no bias in either direction) the process will favor the lucky risk taker, the person who says yes and happens to hit a good streak of positive feedback. That may well be A.

Maybe the luck will turn bad, so that A will suffer. But if we are thinking in terms of a sizable number of decisions made by a sizable number of persons, even a random distribution of good and bad legal luck will generate a “tail” of fortunate risk takers in the bell curve of outcomes. To the extent that these managers are judged by the profitability of their clients’ strategies, they will look very good and be sought after for future responsibilities—in other words, good promotion material. At the same time, however, B or C might also look good as well if their hesitancy can be associated with identifiable situations where the conservatism led the client to avoid a loss, so we should not overstate lucky A’s competitive advantage.

Whether lucky risk-takers are prized more than prudent risk avoiders who turn out to be right under conditions that evenly generate positive and negative feedback is an interesting question. I suspect so, but don’t want to pursue that point because the assumption of an even mix of positive and negative feedback seems artificial. In financial services, at least, there is a predictable cyclicality that allows us to generate even more interesting predictions. During runs of good economic times (e.g., a strong stock

---

27 For a model of executive promotion along these lines, see Anand Goel & Anjan Thakor, Overconfidence, CEO Selection and Corporate Governance, 63 J. Fin. 2737 (2008). Empirical evidence in support can be found in Omesh Kini & Ryan Williams, Tournament Incentives, Firm Risk and Corporate Policies, 103 J. Fin. ECON. 350 (2012).
market) the bias toward favorable outcomes can become extreme. During
good times, then, the A’s of this world thrive, and tend to crowd out the B’s
and C’s. They get the promotions, and hence the power and status. And
because their risk tolerance has been proven “right” by positive feedback,
they tend to become evangelists for a style of professional behavior on
compliance matters that emphasizes flexibility: the willingness to “get
comfortable” as a virtue. Voices of conservatism are thereby silenced. The
longer the run of good times, the more entrenched this overconfidence
becomes. To state the almost self-evident, we went through an unusually
lengthy period of time in financial services of nearly no serious economic
pushback to aggressive financial innovation. It is hard to imagine that
natural risk-preferrers did not gain immense power and prestige as a
result.28

My hypothesis about managers is that an above-average tolerance
for risk and a “flexible” cognitive style in evaluating such risk are survival
traits in settings where corporate strategy and its surrounding culture are
strongly attuned to competitive success. In other words, those who rise to
the top are more likely, on average, to display such traits. There is nothing
necessarily about psychology here of course—an economist would observe
that there is a positive expected return to such strategies,29 so that people
will naturally choose to follow them. But I have long been convinced by
those who argue that evolutionary fitness is strongest among those who
come naturally to the perceptions and inferences that are commonly
rewarded, and who do not have to exert scarce cognitive resources to
formulating an unnatural strategy.30 If so, people whose psychological
make-up inclines them toward risk and flexibility without the burdens of
doubt will be the likely winners in the promotion tournament, and come to
have authority over the communication of the firm’s “official” perception of
risk.31

Power, in turn, has its own troubling implications with respect to
risk. A relatively new line of research in psychology suggests, for example,

28 For an elaboration of this story, see Malcolm Gladwell, Cocksure: Banks, Battles and
29 See note [26] supra.
30 See ROBERT TRIVERS, THE FOLLY OF FOOLS: DECEIT AND SELF-DECEPTION IN
EVERYDAY LIFE (2011).
31 Similarly, I suspect that firms that display such tendencies have an advantage vis-à-vis
their competitors. See Langevoort, Organized Illusions, supra.
that people with power are more hypocritical, better at deception, more optimistic, and more risk-prefering. While achieving power may simply be the product of these traits, there could also be a feedback loop: gaining power may amplify them.

D. Competitive Fitness

The foregoing accounts reflect the idea that there are pathways to power that reward risk-takers. These can be bolstered by research from cognitive neuroscience suggesting that certain steroidal and hormonal influences, particularly testosterone, contribute to an appetite for risk by diminishing fear and anxiety and promoting competitive aggression.

This research—recently surveyed by neuroscientist (and former investment banker) J.M. Coates with extensive reference to the financial crisis—is still in its early stages, and hence has to be read cautiously. But it suggests that testosterone bolsters performance in competitive settings (“competitive arousal”), and more importantly, increases with competitive success. It also dampens fear, so that a series of “wins” leads to ever-increasing risk tolerance, which eventually can turn into the preconscious form of recklessness if and when external conditions allow. This is Coates’ account for the overly aggressive trader phenomenon. This research has also been used to explain, for example, overheated merger and acquisition activity that leads to the “winner’s curse”, i.e., overpayment for assets.

There are many troubling implications, of course, including gender effects. Anecdotal evidence of hiring patterns in investment banks—seeking evidence of competitive success, especially in athletics, for example—and

---

35 See Maurice Levi et al., Deal or No Deal? Hormones and the Mergers and Acquisitions Game, 56 MGT. SCI. 1462 (2010).
male domination of sometimes hostile workplace environments does nothing to dispel the implications. For our purposes, however, the coherence with the other explanations we have offered is striking. The greater the level of competition in an industry (or within firms themselves, for salaries and promotions) the more the ability to compete will be rewarded. If competitive success disproportionately goes to those who—generally, or at least in this particular moment—have suppressed perceptions of risk, we will see more clustering of hyper-competitors higher up. That, in turn, is likely to affect the firm’s culture as those beneath them covet their success and copy their habits. The leaders gain legitimacy and authority, which is potent in determining what subordinates believe and how they behave.

E. Legal Risk Tolerance

To this point, we have been assuming that the risk in question is financial, and explore risk perception in that domain. But, by and large, taking financial risk is not itself unlawful, so long as it is not misrepresented and is managed in good faith. Some understanding of risk perception in the years leading to the global financial crisis can be gained by turning more specifically to legal or compliance risk.

Elsewhere, I have sought to fit legal risk tolerance into the behavioral explanations offered above. Legal risk tolerance functions at two levels. One responds to the likelihood of detection and sanction. This is partly a subjective matter—how clever am I or is my firm at hiding any illegality, as well as what is the likelihood of sanction if the conduct is uncovered? Where there is a high degree of legal uncertainty, as is typical in fast-evolving market settings, this subjectivity maps cleanly onto the biases we have considered (consider, for example, that A, B, and C were lawyers confronting potential legal risk). And serious negative legal feedback from regulators was almost non-existent for much of the decade before the crisis.

37 Langevoort, Getting (Too) Comfortable, supra.
The other dimension to legal risk tolerance is normative. At least at relatively low likelihood of detection or sanction, and especially when the law is ambiguous, compliance decisions reflect the norms of behavior that the individual or organization believes are legitimate. And these can become quite self-serving. The in-group corporate identity provokes greater aggressiveness vis-à-vis whoever is considered the firm’s “opponents” (in-group/out-group rivalry). The most obvious rivals are the firm’s immediate competitors (e.g., J.P. Morgan versus Goldman Sachs), and lawyers will be drawn in by the visceral desire to help their firm win that competition. In financial services, one of the noticeable developments underlying process of aggressive financial innovation was the banks’ disdain for any sense that they owed special fiduciary-like obligations to their institutional customers—a way of distancing themselves so as to rationalize hyper-competitive behavior toward the customers, too. Lawyers baptized in that ideology would fail to see the repercussions of taking that stance a step too far—essentially, the legal posture in which so many financial firms have found themselves.

My sense, however, is that the most pernicious consequence of embracing the internal belief system has to do with the stance toward the law itself. Where the law itself is ambiguous, lawyers’ intuition as to how far to let a client go in terms of aggressiveness is heavily influenced by a subjective evaluation of how legitimate the law’s claim is. Where a loyalty to the corporate mission comes to color the lawyers’ thinking, it becomes easy to start thinking of regulators and the courts as rivals—anachronistic, inexpert policy-makers who mindlessly burden entrepreneurial innovation. Once this kind of cynicism and disdain takes root, there is little to restrain legal risk-taking except for fear detection and sanction—which, as we have noted, can diminish for extended periods of time. I would guess that even in legal departments at some of the big financial services firms earlier in the last decade, the inside view as to the legitimacy and competence of financial regulation had eroded considerably, thereby enabling more aggressive motivated inference as to the law’s demands.

38 As ordinary observation suggests, the presence of a competitive threat makes it more likely that people will respond with “tit for tat” dishonesty, rationalizing it along familiar utilitarian lines. E.g., Pavel Atanasov & Jason Dana, Leveling the Playing Field: Dishonesty in the Face of Threat, 32 J. ECON. PSYCH. 809, 817 (2011). See also Gavin Kilduff et al., The Psychology of Rivalry: A Relationally Dependent Analysis of Competition, 53 ACAD. MGT. J. 943 (2010).
39 See Langevoort, Greased Pig, supra.
III. Securities Law Applied

My point here is fairly straightforward. The law of securities fraud requires proof, beyond a reasonable doubt in criminal cases, of an actual appreciation—in the moment—that what is being said is false or at least creates an obvious danger of deceiving. Yet both culture and psychology conspire to suppress the sense or perception of risk, especially in thriving, successful people and firms. As a result, a fair application of the law will often not hold the actors or their firms liable. The failure of enforcers to bring aggressive cases becomes more understandable, and deterrence is compromised as a result.

That does not mean that enforcement is hopeless, of course. Some risks are sufficient salient to penetrate even the hardest protective shell of denial. Enforcers will search for through massive amounts of electronic data to find e-mails that hint at the appreciation of risk, and might well find some useful nuggets. But my experience is that these only go so far. E-mails have to be read in often-lengthy context, and it is not unusual to see the same person saying nearly the opposite of (or at least qualifying) what seemed so incriminating in some contemporaneous message. E-mails can reflect braggadocio, frustration, anger and the like, and when composed by subordinates, do not establish that the same feelings—even for the moment—were necessarily shared by the key decision-makers in the firm. If our account is right, these key decision-makers in many instances honestly believed that things were at least manageable, however delusional that may seem to outsiders, and came to any realization to the contrary only much too late. The conscious deception, if any, comes only as a cover-up in the very last stages, after most of the financial damage has already been done.40

This assumes, however, that fact-finders will accurately apply the law as to required state of mind. There is a large social science literature exploring how likely this is, with mixed conclusions.41 But what can be studied in laboratory or field experiments have to be fairly simple cases

40 See Langevoort, Organized Illusions, supra.
(and even here, there are some doubts about the competence of juries at the line between knowledge and recklessness). Complex securities cases are extraordinarily difficult even for experts, and it is hard to imagine how or why the degree of inferential accuracy as to what a particular executive actually knew, and when, would be particularly high unless there is smoking gun-type evidence. We know that judging risk-taking in hindsight is particularly difficult, because people will naturally overestimate the probability an event would occur once they know that it did occur.\footnote{See G. Mitu Gulati et al., \emph{Fraud by Hindsight}, 98 Nw. U. L. Rev. 773 (2004).} Securities law has a number of doctrinal moves to winnow out cases likely to be infected by hindsight bias, but nothing if the case actually gets to trial. And jurors, especially, may be motivated to create “stories” with a blameworthy protagonist in the aftermath of catastrophe.\footnote{See Janice Nadler & Mary Hunter McDonnell, \emph{Moral Character, Motive and the Psychology of Blame}, 97 Cornell L. Rev. 255 (2012).} In the Enron criminal prosecution against former CEO Kenneth Lay, the case depended on conscious indifference to risk, akin to recklessness. He was convicted, but juror accounts after the trial was over stressed that they found him guilty because as CEO he should have known better.\footnote{See O.C. Ferrell & Linda Ferrell, \emph{The Responsibility and Accountability of CEOs: The Last Interview with Ken Lay}, 100 J. Bus. Ethics 209, 214-15 (2011).} There is also evidence that “cognitive blindness” excuses fare poorly as a normative matter, particularly in the eyes of more conservative people.\footnote{See Philip Tetlock, \emph{Cognitive Bias and Organizational Correctives: Do Both the Disease and Cure Depend on the Politics of the Beholder?}, 45 Admin. Sci. Q. 293 (2000).}

Hence, we should not assume that the law as applied matches the law on the books. But this simply compounds the dilemma. Prosecutors might win before a jury, but do sometimes come to see that—for an executive truly in denial, infected by bias—a long prison sentence might not really be deserved. But much more than this, even if some cases are brought and succeed in spite of the blind spots, I strongly suspect that the \emph{ex ante} deterrence value we want from the law is largely wasted. When executives are in the moment and resistant to a realistic perception of risk, they will not see that what they are doing is wrong or problematic. They just see themselves as doing the best they can. The level of probability of detection and severity of sanction necessary to break through this resistance is probably beyond what is socially permissible, and would have disturbing chilling effects.
So is there a solution? To some extent, clearer or more prophylactic legal rules—less susceptible to situational cognitive bias—might help, but we know the downsides to those efforts in complex, dynamic financial settings. All the other solutions are structural, finding means of oversight from regulators or private “gatekeepers” deep enough to counteract predictable biases. The latter is expensive, and limited because gatekeepers have their own motivational biases. Incentive structures within financial firms can be altered through clawbacks of compensation tainted by fraud, though this, too, has proven more difficult than anticipated. From among the many imperfect alternatives to trying to prevent the next financial crises, some mix from among these strategies is probably the best we can do. The one thing that is clear to me is that dependence on self-monitoring by market participants in the face of otherwise appealing standards like “act reasonably” or “disclose your known risks” is destined for failure.