

SYMPOSIUM: THEORY INFORMS BUSINESS PRACTICE: OF THEORY AND PRACTICE

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SUMMARY:

... Judges do not cite theoretical articles often; they rarely "apply" theories to particular cases. ... Most theories acquire recognition by tests in practice. ... Theories help us retain memory. ... The theories of numbers and logic are of this sort. Such theories are not amenable to testing in the real world. ... Many theories, says Dr. Holland, are linear, based on the reasoning by "if ... then. ... Useful and Less Useful Theories for Practitioners ... B. Theories Should Be Implemented in Practice Cautiously ... To make them work, theories may require a metamorphosis and a transition. ... Theories may not materialize in practice as expected. ... Theories and ideas are useful, even if they do not have immediate practical value. ...

TEXT:

Introduction

Much has been written about theory and practice in the law, and the tension between practitioners and theorists. n1 Judges do not cite theoretical articles often; n2 they rarely "apply" theories to particular cases. n3 I do not revisit these arguments. Instead I explore the working and interaction of theory and practice, practitioners and theorists.

Part I of this Article tells a story about solving a legal issue using our intellectual tools - theory, practice, and their progenies: experience and "gut." Part II elaborates on the nature of theory, practice, experience and gut. Part III of the Article discusses theories that are helpful to practitioners and those that are less helpful. I conclude that practitioners theorize, and theorists practice. They use these intellectual tools differently because the goals and orientations of theorists and practitioners, and the constraints under which they act, differ. Theory, practice, experience and gut help us think, remember, decide and create. They complement each other like the two sides of the same coin: distinct but inseparable.

I. Creating a Bank GIC

My story relates to the creation of bank Guaranteed Interest Contracts or GICs, as they are called. In the early 1980s I served part-time as a consultant to Bankers Trust Company, New York. In the bank I was a practitioner, but many staff members viewed me as an academic - not necessarily a compliment. I remember my work on GICs with fondness because it helped me "earn my wings" and become one of the group.

GICs emerged with the Employee Retirement Income Security Act of 1974 ("ERISA").ⁿ⁴ Before ERISA, employers could pay their retired employees the promised lifelong pensions from corporate profits, year by year.ⁿ⁵ But if employers became insolvent, retirees, some of whom worked for forty years believing they had a secure retirement, found themselves unsecured creditors and received nearly nothing. Congress reacted to the failure of one very large employer by passing ERISA.ⁿ⁶ The Act requires employers to fund their future pension obligations, that is, to put aside reserves.ⁿ⁷ Therefore, pension plans consist of two periods: a pay-in period during the employees' work years, in which employers contribute to the reserve fund and the money is invested, and a payout period, in which retiring employees receive pensions from the reserve fund.ⁿ⁸ Most employers use the reserve funds to buy lifelong insurance annuities for their retired employees.ⁿ⁹

In the late 1970s, insurance companies began to offer employers a funding mechanism for the pay-in period.ⁿ¹⁰ These are the GICs. Under the GICs, insurance companies (1) accepted from employers the employers' contributions to the reserve fund; (2) paid out all pensions, and death benefits; and (3) paid to the pension plan a fixed interest on the net amounts that the insurance companies held.ⁿ¹¹

For the insurance companies these were lucrative arrangements. Bankers Trust's personnel wanted to offer the same contracts to their customers-employers. However, the general opinion was that GICs are insurance, and banks are not allowed to offer this type of insurance.ⁿ¹²

I was presented with a problem: Is there a legal way for the bank to enter the GICs market? A difference between a practitioner and a theorist comes to light at this point. I did not look for the problem; it came to me; it appeared on my desk. As a theorist I could have chosen this problem, but I was free to look for another interesting issue. An additional difference between the roles of a theorist and a practitioner emerges. As a practitioner I sought a way for Bankers Trust to offer and issue GICs. Failure to find a way would have meant a disappointment, or even have been considered a personal failure. In contrast, as a theorist, it would have made no difference to me whether my conclusions and analysis led to one result or another. The orientation of my "practitioner self" was to seek a concrete result and solve the problem for the bank. The orientation of my "theorist self" was to seek the truth regardless of the effect on the bank. To be sure, both "selves" must convince others of the correctness of their conclusions. But at Bankers Trust, I had to convince my general counsel, the Banking Commissioner, and perhaps the courts. As a theorist I would have had to convince my colleagues. These audiences do not always follow the same criteria for correctness nor do they reward in the same coin.

Returning to the story. It soon became clear that I had not one but two problems. One problem was whether GICs were insurance contracts, reserved exclusively to the insurance industry and prohibited to anyone else. The other problem was whether, even if GICs were not reserved to the insurance industry, the offering of GICs was an activity permissible to banks. This second question arose quickly, as a result of experience. Experience comes with practice. Practice involves repetition. For anyone working in a bank's legal department in the 1980s, the question of bank powers was a recurrent theme.ⁿ¹³ Therefore, the question surfaced immediately. A theorist without practice-based experience in this area of law might have asked the same questions only after more, and perhaps extensive, research. Further, experience did not merely help me pose the questions; it also served to give me a more nuanced understanding of the issues.

My next step was to meet the bank's staff that proposed the GIC offering. I asked about the precise terms of the arrangement, and especially what were the insurance companies' obligations, time limitations, and financial rewards. Here again experience helped; this time, experience as a theorist. In the 1970s, I wrote an S.J.D. thesis on variable annuities.ⁿ¹⁴ That subject involved distinctions between insurance annuities and securities, and required an understanding of insurance. I remembered that insurance laws differentiate between "insurance contracts," such as life insurance policies and annuities, that contain contingencies - real insuranceⁿ¹⁵ - and "insurance business," such as brokerage and investment advisory services, in which insurance companies are permitted to engage, but which are not real insurance. These other businesses do not involve contingencies. Insurance contracts are reserved to the insurance industry. Insurance business is not reserved to the insurance industry, and anyone who qualified could engage in that business.

This understanding led to the question: Are GICs insurance contracts or insurance business? The New York insurance statute did not explicitly answer the question; neither did the courts or legal publications and treatises.ⁿ¹⁶ The only evidence that GICs constituted insurance contracts was that insurance commissioners said so and that only insurance companies offered GICs. That was not enough for me. An examination of the terms of the GICs, as described by the staff of the bank, led to the conclusion that GICs did not contain contingencies, but rather consisted of

obligations tied to fixed interest rates and payment dates (including payments on demand). That was enough for me, but I needed authorities to convince others.

On this issue the history of GICs helped. GICs are the offspring of group annuities. n17 During the pay-in period, before an employee retires, the reserve fund from which the employee's annuity will be paid is augmented by employers' contributions and by investments. One type of such investment is the GIC. No insurance contingencies are involved during this phase because no lifelong annuity retirement payments are made to the particular employees. n18

When insurance companies planned to offer employers such GIC investments, they viewed GICs as annuities without contingencies. n19 That raised legal uncertainties; the companies were not sure that they had authority to issue such "contingencies-less" annuities. Therefore, they asked the New York legislature for a clarification, and received it. n20 The introduction to the bill that authorized insurance companies to offer GICs explained the main reason for the legislation - to allow insurance companies to offer so-called annuity contracts without insurance contingencies. n21 That was sufficient evidence that GICs were insurance business, and that anyone could offer them.

The second problem involved not only experience, but also the exercise of gut or "intuition." The question was whether banks could issue GICs. GICs looked like, and were considered to be, annuities shorn of their contingencies component. However, an examination of the way GICs actually worked revealed arrangements under which insurance companies received money and paid it out on fixed dates or on demand, under a certain formula, plus a fixed interest rate on the net amounts held. n22 Stripped of insurance verbiage, which was linked historically to annuities, the arrangement emerges under a model. A model is a species of a theory, a generalization that may include more than one item. Under the umbrella of this model rests not only GICs but also bank deposits. GICs do what deposits do. The same pattern appears in different contexts - an intermediary that receives money and pays out money with fixed interest on a specified date.

Now the accepted insurance pattern of GICs could be changed to a banking pattern of a deposit. This exercise is similar to the visual exercise in which two profiles facing each other can also be viewed as a vase. It depends on what pattern one focuses to produce the image. The vision of a GIC as a bank deposit emerged in a similar process. One unlocked the traditional view to discover whether the basic features fit another view. They did.

While the insurance analysis was based on experience, which led to the relevant research, the banking analysis was different. It was not experience that led to this new view of the transaction, but a discovery of a pattern - a gut or intuition. These will be described in more detail in Part II.

The next step was easy: stripping the insurance legalese and substituting for it the banking legalese. With that done, out came a deposit that was not merely the equivalent of a GIC, but a banking GIC. The final step was a visit to the Commissioner of Banking to reduce the risk of a new venture into uncharted waters, and seek support against a legal attack by the insurance authorities. The Commissioner approved with glee: insurance commissioners have been protecting their turf against banks and others so zealously! Banks expanded the use of GICs to other purposes with great success. n23 Today no one questions their authority and no one argues that these are insurance contracts. The process of conversion involved analysis and research based on theory, practice, experience, and a gut type of pattern recognition.

II. Theory, Practice, Experience and Gut Decisions: How Do They Help Us Think, Remember, Decide and Create?

This Article does not define theory and practice with utmost precision. But the following definitions are generally correct and are sufficient for the purpose of this discussion.

A. Theory, Practice, and Experience

The dictionary definition of a theory includes words like "analysis," "speculation," "principle," "belief," "hypothesis," and "assumption." n24 The thread that connects all these words is critical thinking and generalization - a general view of parts of the world. n25 Thus, the two components of theory are thinking in its various aspects, and generalization - the recognition of observed or imagined patterns covering numerous related details.

The dictionary definition of practice includes "exercise," "custom," "habit," "repeat," and "perfect." n26 The thread that connects all these words is repetition, whether of acting or thinking. Many of the words defining practice suggest acting on an automatic pilot, so to speak, with no independent or critical thinking or attention. These words may denote acting or doing with little mindfulness or attention. That, however, is not necessarily so. An artist practices the piano with great attention and concentration. The practice of the law and medicine in most cases is far from routine. n27 Therefore, practice is not necessarily mindlessness, but it could be.

Practice produces experience, both for practitioners and for theorists. Experience is gained by repeated activities, including thinking. Practice is generally not mere repetition of identical actions, especially if the actions are complex. Each repeated action changes the actors and their product, adding to their experience, which refines their performance and enriches their memory.

B. Practice, Experience and Theory Are Closer than Seems at First Blush

Practice is not necessarily devoid of theory. In the story of GICs, the analysis of insurance contracts required both practice and experience, as well as modeling and generalization. In fact, practice also constitutes recognized patterns of actions. n28 Practice also involves creativity. A practitioner discovered the telescope, giving rise to later sophisticated theories. n29 Thomas Edison innovated by trial and error - a practitioner's approach - and later his innovations were further theorized. n30 Theorists also practice. They practice writing; they practice skimming materials to get to the core of the substance; they practice judging quickly which conversation will lead to interesting discussions and which will not; and when they conduct experiments, they practice the most efficient ways to use assistants and materials. Most importantly practice produces generalizations and theories through the examination of patterns. Most theories acquire recognition by tests in practice.

C. Practice, Experience and Theory Are Intellectual Tools for Both Theorists and Practitioners

Practice, experience and theory provide efficient tools for thinking, remembering, retaining data to be brought up from our memory banks when needed, and for effective use of attention. With these tools humans acquire new data and innovative ideas.

We have a limited capacity for memory. Theories help us retain memory. The items we remember are organized in categories forming a hierarchy. Thus, in addition to knowledge and understanding, theories create such categories by grouping many items under the same umbrella, and they help trigger the memory of each item. Useful theories are simple because they eliminate details that are not deemed relevant to the related patterns and help us organize data. In the case of the GICs, for example, it was important to remember that a salient difference between insurance and other contracts is the presence of contingencies. That memory surfaced when we resorted to the general definition of insurance, and the sub-definitions of insurance contract and insurance business. In addition, and just as important, theories offer ideas and views of the world to enrich both knowledge and perception.

We have a limited capacity for attention. We are unable to focus on many things all at once. Practice by repetition and resulting habits allows actors to do one thing and pay attention to another. A novice driver must pay full attention to driving, more so than a seasoned driver, who can drive while listening to music or speaking to the other passengers. We perform many functions almost automatically, focusing on these functions only with the appearance of danger signals. In addition, and just as important, practice produces experience on which shortcuts to memory and ideas are built, as described in the following Section relating to gut.

Thus, both theories and practice help increase our database of knowledge and creativity, but they do so in different ways. Theories bring ideas that usually come incrementally and are subject to critical evaluations and continuous revisions. While continuous revisions are time-consuming, theories can result in fewer serious mistakes. It is only when a dramatic change occurs that our theories - our structured thinking - must change. Practice is different. Because we automatize some of our actions or thoughts, we can pay attention to other things. Practice-based experience adds to our data banks and feeds our theorizing. However, in contrast to theorizing, automatic actions and thoughts are not re-examined. While practice is more efficient than theorizing, it may result in significant future mistakes, and when these are found, habits must change. Practice and theory, however, are not entirely distinct. A well-accepted theory acquires the force of habitual thinking and may be as hard to change as any habit. Nonetheless, changing a theory involves the habitual tool of critical evaluation. In that respect, changing habits is harder because it requires additional critical awareness, which is not involved in gaining habits by practice.

D. Prototypes of Theorists and Practitioners

The objective, direction, constraints, and risks of theorists and practitioners differ. Theorists seek to discover interesting, preferably hidden, problems in our complex and puzzling universe. They strive to understand and explain these problems, and sometimes to suggest solutions for them. Theorists offer ideas or hypotheses and prove them true or false, right or wrong. Regardless of whether they are correct or convincing, theorists make others (both theorists and practitioners) think, challenge them, and expand their awareness. n31

In contrast, practitioners rarely invent problems for their own sake, nor seek hidden ones. The problems practitioners face may be obvious - a conflict among parties; a draught; an epidemic; political unrest; a declining corporate profit margin. Practitioners focus on achieving concrete results in the real world: winning the case, inducing settlement among the parties; managing the water supply; finding a cure; seeking an armed or diplomatic solution to the unrest; or rejuvenating the product and organization of the faltering corporation. n32 Thus, the focus and objectives of theorists and practitioners differ.

The constraints under which theorists and practitioners function also differ. While both strive to complete their projects and both are subject to deadlines, of the two, theorists have more time to think. Practitioners must often complete their projects faster, and "think on their feet" with no opportunity to ponder, deliberate, and review. n33 Some practitioners, such as corporate directors, are under a double pressure - required by law to be informed and deliberate, yet pressed by the corporate environment to meet short deadlines. n34 Therefore, practitioners must use shortcuts to get quick answers and make quick decisions. To them, generalizations, theories, good organization of materials and ideas, and other time-conserving mechanisms are crucial.

Practitioners and theorists act under other constraints. However, practitioners must achieve results under greater imposed constraints beyond their control. n35 A practicing physician's goal of curing patients is constrained by the patients' physical conditions and behavior, availability of funds, and sometimes, cultural limitations and beliefs. Even though judges, like other practitioners, have options and discretion, judges must reconcile their decisions with precedents, rules of procedure, and weight of evidence. Their decisions are subject to revisions by higher courts and the legislatures, and, within limits, to the norms of their profession and the pressures of their peers. Lawyers operate under similar limitations, in addition to financial, competitive, and political pressures.

In contrast, theorists enjoy more freedom than practitioners. Many a theory is grounded in self-imposed rules, bound by limitations of the theorists' own making - the ground rules that they establish to determine true and false, right and wrong. The theories of numbers and logic are of this sort. n36 Such theories are not amenable to testing in the real world. Theories exploring right and wrong human behavior, based on moral, economic, or other principles, are subject to such "man-made" limiting ground rules; so also are theories exploring the purpose of life, the meaning of death, the nature of the universe, God, and our relationships to each other. These theories are shaped and bound by human intellectual and emotional constructs: reason, faith, and love, and subject to the theorists' controls. Not all theorists, however, are as free. Theories about how the world was created require real-world proof or disproof, directly or indirectly, and are subject to real-world constraints. Similarly, experiments in genetic engineering are limited by the availability of genes and legal limits on experiments. These limitations are beyond the control of the theorists.

Most importantly, theorists are exposed to lesser personal risks than practitioners. Failures are painful, but the failures of theorists are often less final. The less "practical" theorists' work is, the less risk it poses to themselves and to others. Theorists may suffer from failure to convince their colleagues, but opinions of colleagues can be wrong or may change. In contrast, practitioners may suffer from failure to achieve their targets - to win the cases, heal the patients. These failures are more overt, affect third parties, and are often irreversible and final. Court cases are lost; the patients die. Thus, practitioners take greater personal risks than do theorists.

E. The Uses of Gut

Both practitioners and theorists use gut as a shortcut, timesaving tool. Presumably, if they had the time, they could explain their thought process and the reasons for their decisions. This mechanism is similar to the use of abbreviations, such as USA, and both practitioners and theorists resort to it. n37

More importantly, practitioners and theorists use gut as a shortcut, pattern-searching, thinking tool in situations within complex, adaptive and changing systems. In *Hidden Order: How Adaptation Builds Complexity*, Dr. John Holland offers the building blocks of a theory of complex adaptive systems, usually populated by adaptive agents. n38 Constant adaptation to other adaptive agents and the system as a whole is the major source of complexity and ever-changing rules under which such agents act. Many theories, says Dr. Holland, are linear, based on the reasoning by "if ... then." n39 But humans cannot calculate large, constant variations and probabilities. Further, these theories are often based on the assumption that past patterns will be replicated in the future. In many cases these assumptions prove invalid. Other, more sophisticated assumptions may also prove invalid. n40

In such situations actors often use gut. They draw on memories of experienced actions, decisions, and situations. Intuition or gut tells them which approach worked and which did not. n41 In the process they search for patterns, patterns of patterns, and relationships among them, and this search often leads to creative decisions and approaches. n42

As Dr. Holland notes, agents in a complex adaptive system move from a rule of "if ... then" to a cluster of rules that can then be automated. n43 The rules are tentative because other rules are also possible, and the combinations of the rules mainly depend on the questions asked. Thus, rules that emerge from aggregations of details can become themselves details to be further aggregated. n44 Adaptation to changes alters the structure, or strategy, of the system, depending on the system's experience. n45 Agents act by rules, and change their rules as experience accumulates. n46 Aggregation of rules, categorization of patterns, theories, and models, are ways of simplifying complex systems by putting similar items together and treating them as equivalent. We discard details, which we decide are not relevant for the particular question, and combine the details which we consider bearing on the question.

Top executives often function by gut, and engage in pattern searching when complexity is great. Says AOL's Bob Pittman:

You have to figure out what the picture is. What does it all mean? It's not just a bunch of data. There's a message in there... . Every time I get another data point I've added another piece to the jigsaw puzzle, and I'm closer to seeing the answer. And then, one day, the overall picture suddenly comes to me. n47

Pittman also says, "'your mind continuously processes information that you are not consciously aware of, not only when you're asleep and dreaming but also when you're awake.'" n48 "Aha" may be a reaction to something you read and have a feeling you already knew. n49

In shortcut thinking, experienced practice - the database produced by practice - is important to successful outcomes. The experienced chess player dredges from memory the images of winning and losing chessboard situations. The master chess player will be right most of the time. A less experienced chess player, having fewer memories on which to draw, will make wrong moves more often.

F. Testing Gut Decisions by Reasoning

Successful gut decisions depend on an evaluation of their result. If we can determine the correctness of these results easily, then no more is required, and gut decisions are adopted. But if we cannot easily test their success, reasoning helps double-check the results. The converse is also true. Gut can help check the correctness of reasoning.

For example, a master chess player's gut decision is convincingly correct because (1) the master is the sole master of the decision, (2) the chess game movements are unambiguous, are fairly clearly correlated, and the feedback from the movements is fairly quick and direct, and (3) the result - winning - is clear and unambiguous. Similarly, a basketball player alone throws the ball, even though he acts as a member of a team, his action is visible, and the result (ball falls within or outside the basket) is unambiguous. In both cases actors are guided by gut, which is in turn strengthened and enriched by experience. In both cases the actors cannot, but need not, accurately articulate and rationalize their decision process.

In contrast, physicians and lawyers who act by gut cannot be as sure of the correctness of their decision because they rarely act alone; credit may be due to other than the lawyers' or physicians' contributions. In addition, the details in their complex activity are not clearly correlated with one another. Further, the results of their actions are not necessarily directly linked to their decisions. Other factors can contribute to or detract from successful results. Lawyers may lose their cases because their clients deserve to lose; patients may die even if the physicians performed brilliantly, guided by experienced gut. n50 The reverse may also be true. Notwithstanding bad gut decisions, clients could be acquitted and patients may survive. Thus, the successes of lawyers and physicians do not strengthen their experience-based gut to the same degree that winnings do for the chess master and the basketball player. Even if lawyers and physicians may not be able to fully articulate the reasons for their decisions, they may try harder to do so.

Theory and reasoning may lead to unacceptable results that must be checked by gut and intuition. We reject a market theory for adoption ("market for babies") or a cost-benefit analysis for a rapist and its victim, or for the prevention of rape. n51 Both are examples of applying simplistic linear theories to highly complex social systems, such as placing children in adults' care, or relationships among the sexes. n52 If we add conditions to the "market for babies" to adjust for experience and gut, the theory becomes so cluttered with exceptions as to lose its value as a theory - a general statement of a part of the universe. In that case experience and gut must take the lead.

While a habit of theorizing and reasoning does not invariably lead to a correct, sensible, or acceptable solution, gut does not lead to the promised land either. n53 Gut can create a habit of looking for patterns. n54 This habit is useful, but must be exercised in moderation. Always looking for patterns may result in not making any decisions. The converse is

also true. Automatically following what seems like a rule before the rule's existence is established may result in wrong decisions. The Washington Post columnist Michael Kelly demonstrates the danger of gut-reliant decisions. n55 After meeting President Putin, President Bush had this to say: "I looked the man in the eye; I found him to be very straightforward and trustworthy... I was able to get a sense of his soul... He's an honest, straightforward man who loves his country. He loves his family. We share a lot of values." n56 In a strong reaction Senator Helms noted: "[President] Putin was far from deserving the powerful political prestige and influence that comes from an excessively personal endorsement by the president of the United States." n57

The worrisome thing about President Bush, said Michael Kelly, is not his mistakes in foreign policy. In fact, he is effective.

No, what is worrisome is that Bush - and in this he seems dangerously to resemble the foreign-policy-disaster-prone John F. Kennedy - does not seem to understand, or care about, the limits of gut. He does not seem to want to bother with the tedious business of study and fact assessment that is the process by which right decisions are most often arrived at - which is even then not so often. He does not seem to want to work at the thing. n58

This is precisely the point.

Thus, gut and reason moderate each other. The balance of their mix varies. When the outcome of decisions cannot be easily judged, or when actors' judgement is inconsistent and emotions play an inappropriate part in the decisions, n59 logic and reason must be brought in as "sanity checks" to help correct mistaken decisions. n60 But when logic and reason run roughshod over gut perceptions, producing results that "feel very wrong," we should stop to reexamine them.

G. Judges and Practitioners Use Gut, but Must Rationalize

Judges use gut for the same reason that other actors in a complex adaptive system use it. Even though judges are bound by precedents, they choose the precedents to which they analogize new situations, such as those involving the Internet, or choose among different precedents, n61 or among different rationales derived from the precedents.

However, judges must rationalize their decisions for the same reasons that other practitioners must. n62 First, judges should test their gut inclinations for correctness by using reasoning. n63 Many judicial decisions are not unambiguously correct. Their short-term and long-term impact may differ; the criteria for correctness of judicial decisions can be controversial, and their effect on society and on the litigants cannot be always easily determined. Moreover, judges act mostly in groups. Unless they dissent, their personal gut decisions are not publicized and cannot be tested for correctness. n64 Similarly, practitioners use gut but must rationalize. Like top management, legal practitioners create for themselves rules, aggregate the rules and adapt them to changes in their environment and in the behavior of other agents with whom they interact. Second, like other lawmakers, judges must communicate to others the reasons for their decisions, to guide behavior, establish the rule of law, and render the lawmakers accountable.

A combined use of gut and reason presents a problem of communication. In contrast to the gut timesaving mechanism, and to rationalization, this process is hard to articulate. n65 For example, a master chess player looking at the board and contemplating his next move may find a move that "feels" right, without being able to explain why it does. A master ballplayer knows that he ought to throw the ball in a certain way, but cannot describe his thought process in making this decision. Herbert Simon says that, "when we use our gut we're drawing on rules and patterns that we can't quite articulate. [We may be] aware of the result of the perception, but we're not aware of the steps [that led to them]." n66 Intuition, he says, is the "in-between" steps that are "mysterious only because we don't yet understand how it works." n67 Like the master chess player, judges have gut feelings based on unarticulated memory of the many cases which they have decided.

Yet lawmakers, especially judges and regulators, must articulate the reasons for their decisions in a way that would be shared with the recipients of the information: the higher authorities and those subject to the rules. This tension between the use of such a basis for decisions and articulating the reasons for the decision has been, and probably will continue to be, a fertile ground for debate. n68

The same issue was raised with respect to directors of corporations for similar reasons. To render them accountable for the exercise of power vested in them, directors should articulate the reasons for their decisions. But unlike judges, under the "business judgment rule" directors need not rationalize their decisions, provided they made these decisions without conflicts of interest, paid attention to the issues, received adequate information, and deliberated.

In sum, while gut and reason complement each other they may also paradoxically conflict with each other. They enhance our ability to innovate and protect us from more serious mistakes that we are likely to make if we choose to follow only one approach or only the other. n69

III. Useful and Less Useful Theories for Practitioners

A. Practitioners Use Theories to Understand and Learn the Contexts of the Problems with Which They Deal

Theorists can play the role of "expert witnesses," to facilitate better decisions in the law. Legal practitioners are "generalists"; their context is as broad and diverse as human actions and experiences governed by law. Theories, like other information, educate lawyers in the context with which they deal, and can point to questions, which are crucial to the successful achievement of practitioners' objectives. Because practitioners include, in addition to the bench and the bar, enforcement agencies, regulators, legislatures, and policy makers, theoretical works that are not helpful to one group of practitioners may greatly help others. If theorists do not satisfy their needs, practitioners do their own theorizing, n70 and so do public agencies. n71 Congress, for example, has a number of research arms to which it resorts as well as "think tanks" that produce theoretical work.

B. Theories Should Be Implemented in Practice Cautiously

Some theorists take their separateness from practices to the extreme. They converse mostly with colleagues and write for colleagues. They may even assert that they are speaking only among themselves; outsiders can listen in, but not interrupt. n72 Some practitioners may reciprocate to the same degree.

While we need not go to this extreme, separating proposed actions by theorists is not always a bad idea. While they offer ideas, theorists are not necessarily the most suited to carry out and implement their ideas. While theories and ideas fuel thinking and creating, not all are necessarily suitable for real-world experience in their original form. n73 To make them work, theories may require a metamorphosis and a transition. Ideas may be the spark; but to create a fire, wood and oxygen must be available.

Theories may not materialize in practice as expected. Theories simplify and eliminate some details that may be crucial for successful implementation. Theories may be based on untested assumptions that, when proven wrong, may bring catastrophic results. In the context of chaotic systems, such as the markets or the weather, a small faraway event or the flutter of a feather can result in a crash or a hurricane. One example of this type of crash is the demise of Long Term Capital Management, a hedge fund that implemented extraordinary ideas of theorists, some of whom were Nobel Prize winners. n74 Experience refuted one of their assumptions. Risk taking, however, was not the exclusive province of the theorists. One of the theorists suggested more caution, in light of the assumption, while the business partners decided to take the risk that led to their downfall. n75 More importantly, while all saw the feather fluttering, no one seems to have predicted the hurricane until it was too late.

Another example of a theory that was not actively and quickly adopted relates to the role of institutional investors, mainly mutual funds, and pension funds. These institutional investors used to follow religiously the "Wall Street Rule," which holds: if you are dissatisfied with the performance of corporate management whose shares you hold, then sell. n76 Institutional investors were very reluctant to actively remove the management or interfere in the operations of the portfolio companies.

Starting about ten years ago, this subject has been the centerpiece of many scholarly works. n77 Theorists urged institutional investors to change their practice and become active in corporate governance proper. n78 At first blush their proposed approach was logical. In theory, institutional investors should be active shareholders. Institutional investors are "professional shareholders." They represent millions of small investors who hold shares in the institutional investors' portfolios. Institutional investors are the best choice to control errant corporate management. These investors are the private sector regulators, certainly superior to government regulators as well as to small investors in expertise, sophistication, and desirable self-interest. Besides, with legal voting power in addition to economic power, institutional investors should serve the public and at the same time reduce government interference in corporate affairs. As part of their function, they monitor the corporations whose shares they hold, and have a significant amount of information about these corporations and about others to compare them with. The sale of a large block of shares can depress the market price of the shares to the detriment of investors; and "dribbling" shares into the markets may be costly and render the stock prices uncertain. It makes sense for institutional investors as well as for the public interest to render corporate management more efficient by taking an active corporate governance role.

These arguments are logical. They work beautifully in theory, but they do not pass the test of practice and experience. The investment management industry rejected the invitation to become active investors. Even state pension funds, the most active of the institutional investors, refrained (after some attempts) from appointing their representatives to corporate boards of directors. n79

Why was the theory unhelpful in practice? Is the investment management industry simply wrong, following the trodden road that may have been justified years ago, but not today? I believe that, in the view of the industry and the regulators, the cost of changing the posture of institutional investors far exceeded the benefits. n80 The theorists noted the costs involved in these changes, such as significant conflicts of interest and insider trading possibility. But they did not give these costs the weight that practitioners and regulators did. They may have had a more benign view of, and stronger belief in, market discipline against financial frauds than the practitioners did. The theorists did not experience, for example, the problems of being embroiled in the politics of appointing directors.

Further, the self-interest of the two groups differs. While the theorists desire to produce innovative ideas, practitioners wish to produce profits at lower risks. The risk borne by the two groups also differs. Theorists would not bear the risks of their proposals; at most their proposals would be rejected. The practitioners would bear the risks of implementation; failure could be very costly to them. n81 Moreover, the theorists' goal differed. The theorist aimed at maintaining more control over corporate management. The institutional investors and their regulators aimed at making sure that the institutions represent investors fairly and maintain investors' trust in them and the system. The two groups may have had different views of public benefits and risks involved in the changing role of institutional investors. Theorists were not as concerned about insider trading as institutional investors and regulators were. These investors, whose main function is to trade in the markets, believed that they would face serious problems of insider trading if their representative sat on the corporations' boards. n82 Institutional investors are more active in the affairs of their portfolio corporations when the costs of the Wall Street Rule become very expensive - when the portfolio companies go bankrupt, for example. In such situations the money managers do not stand idly by, but become active in the bankruptcy process to protect their investors' interests.

Conclusion

Practitioners and theorists view each other as different. It is natural for people to view what they do as most important. "Purity" of approach supports self-worth. It limits the number of people involved, encourages exclusivity (e.g., development of a language that others cannot understand), and creates a distinctive closed club. n83 The divide seems to apply also to the audiences whom practitioners and theorists address. Each group tends to those who share its attitudes and needs.

Theories and ideas are useful, even if they do not have immediate practical value. They may contribute to practice and challenge our thinking, not only when they are true and right, but also when they are false and wrong. Theories are useful in different ways to different practitioners, such as legislators and other policy makers, not only to the judges and the litigation bar. n84 All practitioners should welcome them. n85

Practices are tremendously valuable to theorists in search of novel patterns that have escaped others. Practices are also valuable because they preserve our attention and help develop innovative approaches to problems. Theorists should welcome them.

Most importantly, we all need the four intellectual tools of theory and practice, experience and gut. We need them for thinking, remembering, paying attention, and discovering new patterns. While these mechanisms have conflicting features, and we resort to them in different ways, they complement each other. We cannot help but incorporate them, use them, and value them all.

FOOTNOTES:

n1. See generally Stephen F. Williams, *Limits to Economics as a Norm for Judicial Decisions*, 21 *Harv. J.L. & Pub. Pol'y* 39 (1997) (arguing that economics is not descriptive and value neutral, and objecting to the use of economics as a guide to the law); see also Harry T. Edwards, *The Growing Disjunction Between Legal Education and the Legal Profession*, 91 *Mich. L. Rev.* 34, 35 (1992) ("I see no reason why law professors should write mediocre economics, or philosophy, or literary criticism, when arts and sciences professors could be doing a better job[], and as long as other law professors continue to do 'practical' work."). For a description of the

conflicts on the subject see Jean R. Sternlight, *Symbiotic Legal Theory and Legal Practice: Advocating a Common Sense Jurisprudence of Law and Practical Applications*, 50 *U. Miami L. Rev.* 707 (1996).

n2. See E. Allan Farnsworth, *Law Is a Sometime Autonomous Discipline*, 21 *Harv. J.L. & Pub. Pol'y* 95, 97 (1997) (stating that judges read many articles but do not cite many; lawyers do not present law and economics arguments in courts; similarly, law and economics is aloof of the process and substance of the law); see also Eric A. Posner, *Standards, Rules, and Social Norms*, 21 *Harv. J.L. & Pub. Pol'y* 101, 106 (1997). Posner examines a theoretical model and writes that in practice the model has little use. When courts interpret precedents they face the question of whether the precedents are standards or rules. The model does not help resolve their issues. Instead courts engage in a kind of practical reasoning, then follow precedents. *Id.*

n3. See Donald A. Schon, *The Reflective Practitioner: How Professionals Think in Action* (1983); see also Norma Thompson, *The Decline and Repudiation of the Whole: Notes on Aristotle's Enclosure of the Pre-Socratic World*, in 37 *Theory & Prac.* 19, 25 (Ian Shapiro & Judith Wagner DeCew eds., 1995) (describing the view that practice is nothing more than the application and implementation of theories). Thompson writes that theories are the generalizations and practice is the items that fall within these generalizations. In this view there is no theoretical basis for any practice except that developed by theoreticians. This was also Aristotle's view: "Aristotle encourages us to associate theory with the divine and practice with the human." *Id.*

n4. *Employee Retirement Income Security Act of 1974*, Pub. L. No. 93-406, 88 Stat. 829 (codified as amended at 29 *U.S.C.* 1001-1461 (1994 & Supp. V 1999)).

n5. See H.R. Rep. No. 93, at 533 (1994), reprinted in 1974 *U.S.C.C.A.N.* 4639, 4652.

n6. See *Federal Reinsurance of Private Pension Plans: Hearing on S. 1575 Before the S. Comm. on Fin.*, 89th Cong. 8 (1966) (noting that after a Studebaker plant closed, assets in a pension fund provided only some workers with pension rights they had earned, and many workers received nothing).

n7. See 29 *U.S.C.* 1081-1086 (1994 & Supp. V 1999).

n8. See Roger F. Smith, *Your Pension Promise*, *Fin. Executive*, Nov. 1992, at 28.

n9. See Milton Zall, *Understanding the Risks to Pension Benefits*, *Personnel J.*, Jan. 1992, at 62.

n10. See Regina T. Jefferson, *Rethinking the Risk of Defined Contribution Plans*, 4 *Fla. Tax Rev.* 607, 645-46 (2000).

n11. 1 Tamar Frankel, *Securitization* 9.4 (1991). These contracts were usually limited to three years. Only the first year was "open" to payments and disbursements. The next two years were closed. At the end of the two years the insurance companies repaid the money with interest.

n12. See *N.Y. State Ass'n of Life Underwriters, Inc. v. N.Y. State Banking Dep't*, 83 *N.Y.2d* 353, 363 (1994).

n13. See, e.g., John P.C. Duncan, *The Course of Federal Pre-Emption in Federal Banking Law*, 18 Ann. Rev. Banking L. 221, 313 (1999); see also Roberta S. Karmel, *Regulatory Implications of Individual Management of Pension Fund: The Challenge to Financial Regulators Posed by Social Security Privatization*, 64 *Brook. L. Rev.* 1043, 1068 (1998).

n14. Tamar Frankel, *Variable Annuities, Variable Insurance and Separate Accounts*, 51 *B.U. L. Rev.* 173 (1971).

n15. See *N.Y. Ins. Law 1101(a)(1)* (McKinney 2001). A life insurance policy and an annuity contain a promise to pay upon death or throughout life. In both cases the insurance company promises payment for an undetermined, contingent period. We do not know when the life of an insured or an annuitant will cease. Insurance companies are able to make these promises because even though they do not know when an individual will die, they can ascertain, based on past statistical data, when a percentage of a group of individuals will die. Thus, pooling a large number of insureds or annuitants, insurance companies can offer payments to be terminated or triggered by the death of an individual. In fact, those who buy annuities and die sooner than the average pay for those who buy annuities and die later than the average. In life insurance the reverse is true. Those who buy life insurance and die later than the average pay, and continue to pay premiums, for those who buy life insurance and die sooner than the average. In addition, the premiums paid on insurance policies and annuity contracts are invested and part of the investment return inures to the policy and annuity holders, and the insurance companies retain part.

n16. See *id.* 1113.

n17. See *Messagephone, Inc. v. Tex. Life, Accident, Health & Hosp. Ins. Guar. Ass'n*, 966 S.W.2d 133, 134 (Tex. App. 1998) (stating that a "guaranteed interest contract issued to the plan manager remains an unallocated group annuity contract").

n18. See *Ariz. Life & Disability Ins. Guar. Fund v. Honeywell, Inc.*, 927 P.2d 806, 808 n.1 (Ariz. Ct. App. 1996).

n19. See 1 Frankel, *supra* note 11, 9.4, at 368.

n20. See *N.Y. Ins. Law 1113(a)(2)* (McKinney Supp. 1999).

n21. 1985 N.Y. St. Legis. Ann. 311.

n22. See *Messagephone, Inc.*, 966 S.W.2d at 138 (citing Jonathan L. Mercier & A. Richard Susko, *Guaranteed Investment Contracts*, in *Legal Issues in Pension Investment* 291 (Practicing Law Inst. ed., 1981)).

n23. See *Glennie v. Abitibi-Price Corp.*, 912 F. Supp. 993, 996 n.1 (W.D. Mich. 1996) ("A [Bank Investment Contract] is the same as a GIC except it is offered by a bank rather than an insurance company.").

n24. See Merriam-Webster's Collegiate Dictionary 1223 (10th ed. 1999).

n25. Thinking should be distinguished from paying attention, although attention is important to understanding the meaning of theory. "Attention" is ambiguous in the sense that it may denote thinking, but not necessarily critical thinking. One meaning of attention is obedience: attention to the orders or ideas of others. This might lead to doing what others tell us to do, paying attention to the orders but not thinking at all. Another meaning of attention is more general and includes "mindfulness" - focus, alertness, thoroughness, care, fascination. These words would include paying attention not only to the directives of others but also focusing on one's own thoughts. All these words, however, denote a state of the mind - the use of thinking in a certain way, but not necessarily thinking in an independent or creative way.

n26. See Merriam-Webster's Collegiate Dictionary, *supra* note 24, at 914.

n27. In fact, the artist when performing, the lawyer when negotiating a complex deal or appearing in a difficult case, and the physician when performing heart surgery, are practicing with enormous mindfulness and attention.

n28. If the actions are identical, the pattern - the theory - is not very interesting or useful. One item could describe all items. But if the items are not identical but similar, a theory can be interesting and helpful. Thus, "best practices" in industry are theories about recognized patterns of practices.

n29. Hans Lippershey, a Dutch spectacles maker, is traditionally credited with inventing the telescope. The Estates of Holland first used the invention for warfare. Upon learning of the invention, Galileo built and adapted a telescope for use in astronomy. 7 *The New Encyclopedia Britannica* 387 (15th ed. 1993).

n30. It is not surprising that many creative lawyers crave an academic environment and career, while very creative theorists seek to find their questions in the real world.

n31. Practitioners use theories. In the case of GICs the practitioners at the bank had to contend with the far more fundamental policy that divided banking from insurance. As background for justifying the engagement of banking in GICs they needed to understand the implications not only for their business but also for the regulators. These justifications involved the nature of the risks to the bank and the absence of insurance risks, which, at that time, it was assumed banks were not structured to cover. The theories concerning the nature of banking and insurance were therefore important to the bank when approaching the Banking Commissioner for approval of the GICs. Arguably, every regulated industry must draw on theoretical work on the history, explanation, justifications, and criticism of the regulatory structure.

n32. As mentioned before I did not seek the problem of the GIC. It came to me. But theorists who found the question interesting produced some work on the nature of insurance and the nature of banking. Thus, even accounting for gradations and exceptions, one could view theorists as more likely to raise and focus on interesting unanticipated problems, and practitioners more likely to offer and focus on interesting and unanticipated solutions to problems.

n33. Arguably, law school classroom discussions and perhaps the examinations offer students the opportunity to practice thinking on their feet or seat, short-term.

n34. The duty of care that fiduciaries must exercise requires obtaining information and evaluating it, and sometimes discussing it with colleagues.

n35. Electricians and billiards players theorize differently from physics experts driven by different aims.

n36. See Gottlob Frege, *The Foundations of Arithmetic* (2d rev. ed. Northwestern Univ. Press 1968) (1953).

n37. This tendency contributes to the development of a language for both practitioners and theorists, which makes it difficult for outsiders to judge the correctness of their gut decision, and may require rationalization, unless outside proof such as winning in the game of chess or basketball is available.

n38. John H. Holland, *Hidden Order: How Adaptation Builds Complexity* (1995).

n39. *Id.* at 15-16.

n40. The underlying assumptions of theories by Nobel Prize winners, which predicted variations once in a thousand years, were proven wrong, leading to the demise of a very large hedge fund. See Nicholas Dunbar, *Inventing Money: The Story of Long-Term Capital Management and the Legends Behind It* 182-224 (2001) (describing and analyzing the rise and fall of the Long Term Capital Management hedge fund); *id.* at 203 (suggesting that the sources of trouble were the assumptions underlying some of the theories and the automatic risk management systems adopted by the banks, which were effective for each bank but devastating for the system as a whole, under certain circumstances).

n41. See Jeremy Campbell, *Winston Churchill's Afternoon Nap* 376 (1986). Jerry Fodor of MIT offers a metaphor of psychological modules, which manipulate complex information in the brain. *Id.*

[The modules] may be capable of very elaborate and extremely rapid feats of computation, but their range of knowledge is restricted. Modules do not know as much as the brain as a whole knows. Other, "higher" centers of the brain, such as those involved in thinking, judging and imagining ... share information without hindrance ... [but] are denied access to the internal operations of the modules and therefore must be content to work with the special representations of the world that modules provide.

Id. When we are faced with very complex situations involving many items that relate to many patterns we must break out of single patterns and create a "meta-pattern."

n42. See Alden M. Hayashi, *When to Trust Your Gut*, *Harv. Bus. Rev.*, Feb. 2001, at 59, 62-64. Following a reasoning pattern that is also followed by competitors in business or in law or in any other practice does not work. It is at this juncture that some management personnel, who are very good, stop at middle management and do not proceed to the top level. That is why some lawyers remain at the lower level as well. That subconscious is what distinguishes some people from others.

n43. Holland, *supra* note 38, at 45-50.

n44. *Id.* at 10-12. Cf. Hayashi, *supra* note 42, at 63 (discussing that decisions on school admissions and decisions by doctors and parole officers "confirm that professional judgment can often be reduced to ... rules").

n45. See Holland, *supra* note 38, at 9 (stating that a biological organism "fits itself to its environment, ... [and] experience guides changes in the organism's structure so that as time passes the organism makes better use of its environment for its own ends.").

n46. See Hayashi, *supra* note 42, at 62 (stating that gut draws partly on the subconscious to sort complexity and bring the results to the fore). "Experience enables people to chunk information so that they can store and retrieve it easily," and helps discern categories of categories and patterns of patterns. That is how people can look at the same thing - especially if it is very complex - and see different things each time; as they draw from the same data they see different patterns. That is how the same legal decision can illuminate different ideas at different times. *Id.*

n47. *Id.* at 63. The top manager looks at the data a number of times, and like a scientist he tries to discern a pattern that is helpful not only to an explanation but also as a basis for a decision to act. Pittman knew from past experience that sometimes the sale of a product ancillary to the main focus of the business is where the money is. Thus, in amusement parks (and movies) most revenue came from selling refreshments and other merchandise, not from the admission tickets. He used this in another context at AOL.

n48. *Id.* at 61. For an illustration in the world of athletics, see Stanley Fish, Dennis Martinez and the Uses of Theory, 96 *Yale L.J.* 1773, 1773-74 (1987). Before a game, a reporter asked Martinez what words of wisdom his manager told Martinez before the game, and the player responded: "'He said, 'Throw strikes and keep 'em off the bases,' ... and I said: 'O.K.' What else could I say?'" Fish observes that what the manager and the pitcher know is "either inside of them or ... beyond them."

n49. Hayashi, *supra* note 42, at 61; see *id.* at 61-62 (discussing how one CEO places himself in unusual circumstances working as a janitor).

n50. Litigation lawyers rely more successfully on gut in cross-examination perhaps because notwithstanding the variety of witnesses and subject matter of cross-examination, they have immediate "feedback" for their questions and lines of inquiry and that strengthens their memory and gut reactions.

n51. The cost-benefit analysis described here is that of the rapist, who may benefit from the rape more than the cost to the raped. I do not include cases in which the existence of rape is unclear and where consent is the issue. Neither do I include cases in which the allocation of enforcement costs of preventing rape are considered as compared to preventing other horrible crimes. These fringe issues do not mask, however, the fallacy of applying cost-benefit analysis to those cases where these tests are inappropriate. An attempt to cover all aspects of life by cost-benefit analysis is self-defeating because to do so the terms themselves must be made so broad as to become meaningless.

n52. See Richard A. Posner, *Economic Analysis of Law* 139-43 (3d ed. 1986).

n53. See Campbell, *supra* note 41, at 376.

n54. See Hayashi, *supra* note 42, at 63.

n55. Michael Kelly, *Where Sammy Sosa Meets Vladimir Putin*, Wash. Post, June 27, 2001, at A25, available at <http://www.washingtonpost.com/wp-dyn/articles/A49343-2001Jun26.html>.

n56. *Id.*

n57. *Id.*

n58. *Id.*

n59. Emotions play a role in decisions led by gut reactions. Emotions are essential and important in honing intuitive abilities to make good decisions. A gut may send its signals even by a physical sensation. When people "know" that their decision is right their stomach may tighten, or their skin tingles. While they may compete, "balanced emotions are critical to intuitive decision making." Hayashi, *supra* note 42, at 62.

n60. Statistical rules often outperform human judgment because they are more consistent; for example, they do not suffer from human moods. Not all practitioners can utilize gut as much as top management, although they too must reason and justify their decisions. Judges and lawyers must reason. Experts are good when they have rules and good categories for recognizing the indexes. This is how intuition is related to awareness and understanding. A truly good inspired decision requires cross-indexing; the use of analogies to unrelated fields. Many theoreticians may have the intelligence but not the gut. Gut leads to some extent to theories. A theory, followed blind, especially when it is based on highly complex data, is likely to be wrong, just as a gut has a chance of being wrong. However, theories may help intuition by highlighting human errors, for example, our tendencies to take risks that are too high in order to retrieve losses, that is, not knowing when to cut, or seeing patterns where none exist, or feeling overconfident and at the same time not trusting our intuition. This mix and mixed-up human emotions can be clarified by theories. See *id.* at 62.

n61. See Stanley Fish, *Almost Pragmatism: Richard Posner's Jurisprudence*, 57 *U. Chi. L. Rev.* 1447, 1450-51 (reviewing Richard A. Posner, *The Problems of Jurisprudence* (1990)). Fish notes that Posner's book characterizes the judge's controlling decision as the "choice as to what the precedent shall be." Fish, *supra*, at 1451.

n62. In addition law must be communicated to the public so that people can follow the rules; judges must be accountable, to avoid arbitrary and prejudicial decisions.

n63. See Fish, *supra* note 61, at 1451 (suggesting that judges are bound by precedents and only considerations of policy or ethics justify the exercise of choice among precedents).

n64. The correctness of the decisions of a particular court or judge may be evaluated by the size of their following, and by their conversion from decisions on the particular facts to general rules and principles; that is, to theories. In this respect judicial decisions are similar to theories. See Karl P. Popper, *Objective Knowledge: An Evolutionary Approach* 13 (2d rev. ed. 1979) (stating that theorists desire to show truth and "can never justify empirically" their theories, leading to the question of which theory is preferable); *id.* at 14-25 (offering methods of proof).

n65. See Hayashi, *supra* note 42, at 62 (stating that gut draws partly on the subconscious to sort complexity and bring the results to the fore). "Experience enables people to chunk information so that they can store and retrieve it easily," and helps discern categories of categories and patterns of patterns. *Id.* That is how people can look at the same thing - especially if it is very complex - and see different things each time; as they draw from the same data they see different patterns. That is how the same legal decision can illuminate different ideas at different times. *Id.*

n66. *Id.* at 63.

n67. *Id.*

n68. It seems that judges' gut reactions conflict with precedent and legal reasoning only in a few cases. In some cases an analysis of the data convinces the judge of the weakness of his initial gut reaction. Other cases involve highly individualized decisions, such as sentencing, in which tight and specific legal guidelines may be "stretched" to harmonize with the judges' sense of justice. Judges may face a conflict with clear precedent that brings about very offensive results - for example, when a proven brutal murderer may be released because a confession brutally forced by police taints all other evidence of the murder. When there is no doubt as to the repugnance of the result, judges may seek justifications on the fringe of the precedents. When the results are repugnant to the judges but not necessarily as clearly repugnant to others, such a fringe justification may be criticized and probably continue to be debated for some time, until settled by society.

n69. The extent to which we should balance one approach or another is outside the scope of this paper. However, the circumstances in which decisions can be verifiable by results, the extent of the decision makers' experience, and the extent to which the decision makers must rationalize their decisions for other reasons, such as accountability, help determine the balance.

n70. In the past ten years numerous law firms have produced summaries, comments, and books prepared by their members for wide distribution. These materials also serve as advertising for the firms' available talents.

n71. The Securities and Exchange Commission often hires as its chief economist a person from academia.

n72. See Meir Dan-Cohen, *Decision Rules and Conduct Rules: On Acoustic Separation in Criminal Law*, 97 *Harv. L. Rev.* 625 (1984) (addressing the distinction between laws addressed to the general public and laws addressed to public officials).

n73. See Ward Farnsworth, *Talking Out of School: Notes on the Transmission of Intellectual Capital from the Legal Academy to Public Tribunals*, 81 *B.U. L. Rev.* 13 (2001).

n74. See Dunbar, *supra* note 40, at 182-224 (describing and analyzing the rise and fall of the Long Term Capital Management hedge fund); *id.* at 203 (suggesting that the sources of trouble were the assumptions underlying some of the theories and the automatic risk management systems adopted by the banks, which were effective for each bank but devastating for the system as a whole, under certain circumstances).

n75. See *id.* at 196.

n76. See Robert C. Pozen, Institutional Investors: The Reluctant Activists, *Harv. Bus. Rev.*, Jan.-Feb. 1994, at 140, 147.

n77. See generally Mark J. Roe, *Strong Managers, Weak Owners: The Political Roots of Corporate Finance* (1994).

n78. See Pozen, *supra* note 76, at 140.

n79. Robert W. Hamilton, Corporate Governance in America 1950-2000: Major Changes but Uncertain Benefits, *25 Iowa J. Corp. L.* 349, 355 (2000) ("[The] institutional investor prefers to consider itself more as an investor than a controller... . Today, there are thousands of institutional investors in the United States, and only a small fraction of them are regularly involved in issues of corporate governance.").

n80. See Roe, *supra* note 77, at 235 (advocating roles for institutions in corporate governance including: holding managers accountable, computing the stock markets' supposed short-term tendencies, and coordinating the long-term relational investments of corporations that need to do business together). Roe did foresee some of his theory's limits, such as conflicts of interest, dampening the entrepreneurial leadership, and possible increased government involvement in financial planning. Roe did not advocate compelling ownership structures but did advocate encouraging them. *Id.*

n81. The ideas may indeed help practitioners in other contexts, but not in this case, or not at that time.

n82. See Roe, *supra* note 77, at 119-20.

n83. See Dan-Cohen, *supra* note 72, at 625.

n84. Edwards, *supra* note 1, at 34, 44, 55. Judge Edwards writes: "My argument, here, assumes a particular audience for legal scholarship - a practitioner seeking to solve a legal problem or a judge preparing to resolve a legal dispute." *Id.* at 55. But "the 'practical' scholar should seek to integrate theory with doctrine, because both are relevant to the practitioner and government decision-maker." *Id.* at 44.

n85. For an insightful article on the subject, see Sternlight, *supra* note 1, at 707.