

WHAT IS IT LIKE TO BE A BEETLE? THE TIMELESSNESS PROBLEM IN GILSON'S VALUE CREATION THESIS

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ABSTRACT

This is a contribution to the 2014 mini-symposium honoring the thirtieth anniversary of the publication of Ronald Gilson's seminal article *Value Creation by Business Lawyers*. In it, he coined two powerful metaphors: that of lawyers as "transaction cost engineers" and as beetles studied by their entomologist brethren in the legal academy. As a former lawyer-beetle and a current academic-entomologist, I am quite sure that the transaction cost economics he used to explain value creation missed something important about the subjective and real world experience of being a lawyer-beetle. In this essay, I (a) summarize two different but significantly related critiques of theory, (i) the physicist Lee Smolin's powerful argument for the unreality and therefore timelessness of algorithmic models of the universe – i.e., why physics as generally practiced is "physics in a box," and (ii) the philosopher Alasdair MacIntyre's controversial argument for the unreality of modern conceptions of utility, rights, and efficiency, (b) borrow from both critiques in order to understand the difficulties in transposing timeless economic and legal conceptions ("utility" and "rights," respectively) to real transactions that occur in real time, (c) criticize the tendency of the legal profession, in both the academic and practicing arms, to teach and practice a scientific "law in a box," and (d) suggest a vision of what it means for a wise business lawyer not to be so constrained.

* Professor of Law, Suffolk University Law School. A.B., University of Michigan, 1975; J.D., Stanford University, 1979. The most important acknowledgment is to Ron Gilson for having written his iconic article and providing such tasty food for thought. I appreciate his kindness, wisdom, intellectual curiosity, extensive comments on this draft, and permission to quote a couple of his emails to me. Our delightful dialogue about some of what I say in this essay makes it clear (see the conclusion) that we are not as much debating as proffering very different analytic means of approaching what we both did for a living. *Vive la différence!* As always, Brian Bix tried to help me (whether or not he succeeded) keep the philosophic train from jumping the track. I also appreciate comments from Nicholas Georgakopoulos and Andrew Stumpff.

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I. INTRODUCTION

Why would sophisticated business people pay millions of dollars to lawyers in connection with the completion of their transactions? Ronald Gilson asked that question in his 1984 *Value Creation* article.¹ He wanted an answer that relied on something more rigorous than what Robert Scott, one of Professor Gilson’s Columbia colleagues and frequent co-authors, described as the figurative “wise man:” a form of a theoretical and ad hoc explanation “under which only the ‘wise man’ is able to decide real cases by evaluating incommensurable principles and applying practical wisdom.”² In 1984, one did this by applying the burgeoning field of law and economics. One could assume that clients were rational, that they were motivated in business transactions to maximize joint surplus (i.e. “value creation”), and that any expenditures on lawyers would necessarily have to contribute to that effort to make any economic sense.³

As someone who spent more than twenty-five years doing deals in the real world, I never bought the thesis, and in a fit of intellectual pique one morning

¹ Ronald J. Gilson, *Value Creation by Business Lawyers: Legal Skills and Asset Pricing*, 94 YALE L.J. 239 (1984).

² Jeffrey M. Lipshaw, *Contract as Meaning: An Introduction to “Contract As Promise at 30,”* 45 SUFFOLK U. L. REV. 601, 621 (2012).

³ Several years ago, Professor Gilson recounted how he came to write the article. William J. Carney, Ronald J. Gilson, & George W. Dent, Jr., *Keynote Discussion: Just What Exactly Does a Transactional Lawyer Do?*, 12 TENN. J. BUS. L. 175, 176-79 (2011). As he noted then, “[i]n 1984, we were still in the process of financial economics turning into serious microeconomics. . .” *Id.* at 178.

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wrote an essay criticizing it.⁴ That resulted in some irony. Until I sent him a draft of that piece, I had never communicated with Professor Gilson. I confess that I still do not buy the thesis. But what I have discovered since, in a number of discussions with him about theory and practice, is that he is indeed a very wise man.⁵ That is particularly true about my particular scholarly *bête noire*: mistaking models or theories of what lawyers do for the reality of their professional experience. I confess I come to that honestly; as a practitioner my *bête noire* consisted of transactional lawyers who mistook our contracts and other legal constructs (as complex as they might be) for the far ore complex reality of our business relationships. It is clear that Professor Gilson is open-minded and pragmatic, does not ascribe to the notion that any form of economics is a “theory of everything,” and looks askance at those who fixate on single theory explanations of the real world. And many of insights in *Value Creation* itself, particularly about interdisciplinary practice⁶ and the problems in business law education,⁷ were and continue to be remarkably prescient.

Professor Gilson's primary contribution to posterity is the metaphor “transaction cost engineers” for business lawyers. To think of a transaction as a mechanism capable of being engineered is evocative and powerful. The metaphor quickly became part of the lexicon and has remained so for thirty years. Its richness is also what has made it so interesting to unpeel. The metaphor has a dark side – one I am sure Professor Gilson never intended – having to do with the application of economic theory not just to the metaphoric engineering of the transaction, but also to the human beings who inhabit it. The problem is that there are and have always been wise people whose wisdom is difficult to capture in metaphors of mechanisms, machines, engineering, or science. The Enlightenment changed how many people in Western cultures perceived the functioning of the natural and social world, but it was not a quantum leap in human evolution. The one thing we can say, however, about the last 400 years or so is that, as a species and as observers of our own social evolution, we are more inclined to look for mechanism-like structure and system in what we do.⁸ Lawyers and law professors

⁴ Jeffrey M. Lipshaw, *Beetles, Frogs, and Lawyers: The Scientific Demarcation Problem in the Gilson Theory of Value Creation*, 46 WILLAMETTE L. REV. 139 (2009). As I said at the time:

My argument is not that Gilson's theory of value creation—which, as discussed below, rests on the presupposition that the involvement of lawyers in a transaction can only be explained if they add to the total economic surplus—fails as a matter of explanation. It is that the explanation is not entitled to privileged epistemic status, *i.e.*, worthy of being given respect as an approach to truth in a scientific way, particularly as compared to cultural or hermeneutical explanations of the role of the lawyer in the transaction process. *Id.* at 140.

⁵ In the interest of gender equality, I will hereafter refer to the “wise person.”

⁶ See Gilson, *supra* note 1, at 301-03.

⁷ See *id.*, at 303-06.

⁸ For a critique of the metaphor of the machine as applied to modern business management, see generally JAMES CHAMPY, *REENGINEERING MANAGEMENT* (1995).

from Langdell to Gilson have not been immune from the allure of being scientists and engineers rather than shysters, mouthpieces, or deal killers.⁹ In that spirit, Professor Gilson's less cited but no less clever metaphor is that scholar-entomologists study lawyer-beetles.¹⁰

Like Professor Gilson, I had a significant career as a lawyer-beetle. My issue with the "transaction cost engineer" and "beetle" metaphors has always been that trying to capture universal and timeless truths in a scientific study of lawyering misses something important about the subjective and inner experience of being the lawyer. The problem with the scientific view is this: we live in a reality that is a succession of moments and subjective expectations as distinct from abstract economic curves and contract rights as the universe is from the physics that describe it. As I noted earlier, this is an insight that arose from my practical experience far more than any philosophical theorizing. The plan we make or the contract we write is its own theory – its own aspiration to timelessness; a way of freezing a particular prediction of the future. Any lawyer who has gone back to the leather-bound book after closing the deal knows that the contracts may be accurate and useful ways of predicting and controlling the future. They also stand a very good chance of being obsolete moments after being written because one or more of the parties' needs or wants change. That is not a concession to or an endorsement of what the economists call opportunism. Instead it recognizes that the relationship of the past, present, and future in any decision-making is fraught with paradox, even when scholars or practitioners think about it in the most rational way.¹¹ Things change, and how we react to the change in the present moment is at least as important as what we did to control things in the past. That sometimes includes looking at a contract and seeing the rights expressed in it not as fixed and timeless, but an abstracted reflection of a

⁹ Professor Gilson's own *bête noire* was the lawyer either as parasite glomming on to the exchange of money or deal killer "whose continual raising of obstacles, without commensurate effort at finding solutions, ultimately causes transactions to collapse under their own weight." See Gilson, *supra* note 1, at 243. My sense, based on more than a quarter century of practice, is that like many stereotypes this one is overbroad, but it has its basis in a germ of truth.

¹⁰ The proximate trigger of my first essay was a report that, at a conference, Professor Gilson had introduced Chuck Whitehead, another ex-transactional lawyer turned law professor, with the clever witticism that he formerly had been a beetle and was now an entomologist. I now realize that the original source of the witticism was the *Value Creation* article itself. See Gilson, *supra* note 1, at 257.

¹¹ For example, in the purity of rational choice theory, a sunk cost independent of the present decision ought to have no impact on it, but the behavioral economists have shown that it happens all the time. Similarly, rational choice theory suggests that there ought never be cooperation over time when contract obligations are non-simultaneous, but that happens all the time as well. See Jeffrey M. Lipshaw, *Dissecting The Two-Handed Lawyer: Thinking Versus Action in Business Lawyering*, 10 BERKELEY BUS. L. J. 231, 265 (2013).

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past moment in time that may or may not contribute to solving the present problem.¹²

Reconciling the entomologist's observation with the beetle's experience evokes Thomas Nagel's famous essay about the inner experience of bats.¹³ Nagel concluded there was something fundamentally different about the organism's experience than its physical operation. The theory of bats still cannot tell us what it is like to be a bat. The work of a chiropterologist, like the work of an entomologist, "is a domain of objective facts par excellence—the kind that can be observed and understood from many points of view and by individuals with differing perceptual systems."¹⁴ Reduction of our needs and desires to the economic abstraction of utility or simplification of our expectations to the legal abstraction of rights are useful.¹⁵ But the real world is something different and infinitely more complex than any of those abstractions are capable of capturing, at least in part because scientific observation and reduction cannot (and may never) capture the equally real subjective experience of the agent's doing what she does in practice.

In this discussion of *Value Creation*, I suggest that an aspect of that subjective experience is living in real time as opposed to deriving timeless and universal generalization about behavior. In what follows, I (a) summarize two different but significantly related critiques of theory, (i) the physicist Lee Smolin's powerful argument for the unreality and therefore timelessness of algorithmic models of the universe – i.e., why physics as generally practiced is "physics in a box," and (ii) the philosopher Alasdair MacIntyre's controversial argument for the unreality of modern conceptions of utility, rights, and efficiency, (b) borrow from both critiques in order to understand the difficulties in transposing timeless economic and legal conceptions ("utility" and "rights,"

¹² For a variation on a similar theme but from a more "macro" perspective, see generally Katharina Pistor, *A Legal Theory of Finance*, 41 J. COMP. ECON. 315 (2013). Professor Pistor's thesis is that there is a tension between the commitments "enshrined" in financial instruments and the fundamental uncertainty over time of financial markets in which those instruments are currency. Financial markets are inherently unstable, and things change. Financial instruments, on the other hand, have the appearance of being "pre-determined, binding, [and] non-negotiable." *Id.* at 318. In short, the instrument modeled on today's conditions may exacerbate tomorrow's presently unknowable crisis of liquidity and volatility. What saves the system from collapse is the elasticity of the law: "the probability that ex ante legal commitments will be relaxed or suspended in the future." *Id.* at 320. In my words, to save the system we put aside the abstraction of the timelessness of the commitments.

¹³ Thomas Nagel, *What Is It Like to Be a Bat?* 83 PHIL. REV. 435 (1974). It occurs to me there are multiple levels of the observer and the observed. Scholars study lawyers for the purpose of theorizing objectively about them; lawyers themselves study their clients in order to create an objective model of the clients' subjective (or inter-subjective) desires.

¹⁴ *Id.* at 442.

¹⁵ *Id.* at 443. Like Nagel, I am not making an argument against reduction, but only suggesting that any reduction is necessarily incomplete as a description of the real world. *Id.* at 443.

respectively) to real transactions that occur in real time, (c) criticize the tendency of the legal profession, in both the academic and practicing arms, to teach and practice a scientific “law in a box,” and (d) suggest a vision of what it means for a wise business lawyer not to be so constrained.¹⁶

Economists and lawyers (academic and practicing) happen to concentrate on particular categories of these objective abstractions, whether or not they sufficiently constitute regularities to be thought of as descriptive science, or are common enough to be designated as default rules as a normative matter. That objective exercise is “law in a box.” My particular contribution is to suggest a way out. It begins with a caution to students, lawyers, and law professors against confusing digestible bits of theoretical (or even mechanism-like) regularity with the complexity and unpredictability of lawyers experiencing a reality that unfolds in a succession of often surprising moments, particularly when it comes to creating lawyerly constructs like business organizations or acquisition agreements and to exercising the professional judgment of a wise lawyer.¹⁷

II. THEORY, REALITY, TIMELESSNESS, AND LAW IN A BOX

A. *The Value Creation Thesis: “Something is Missing”*

I recognize it is a long road from cosmology to moral philosophy to writing an acquisition agreement, but the consistent thread is the desire to theorize or even algorithmatize everything, including human affairs. Professor Gilson observed a commonplace occurrence: business lawyers kept working even though the explanations why they did were so theoretically unsatisfying. Neither favorable nor unfavorable views of the lawyer’s role in a transaction got to the heart of what *homo economicus* knew had to be true: if lawyers keep getting hired and paid, it must be because they add value to transactions. Hence, Professor Gilson’s goal was to “develop a mode of analysis that allows identification of those activities that have value.”¹⁸ In other words, he proposed and purported to

¹⁶ I have come to learn that Professor Gilson and I do not disagree at all about that vision; as he puts it, the trick is to be able to use the techniques, whether in scholarship or practice, without being captured by them. Comments of Ronald J. Gilson, July 20, 2013 (on file with the author). I expand on this in the conclusion.

¹⁷ And though it is not the subject of this essay, Professor Gilson and I agree about the next move as well: not just telling students to be wise but giving them some exposure to judgments they will have to make when the lawyering techniques have to give way to something else – when they have to get out of the box.

¹⁸ Gilson, *supra* note 1, at 243. I should note that I am not going to place Professor Gilson’s 1984 work within the complex taxonomy of economic disciplines – which carry names like “Law and Economics,” “Transaction Cost Economics,” “New Institutional Economics,” and “Coaseian Economics.” For an overview of some of the differences, see Pierre Schlag, *Coase Minus the Coase Theorem – Some Problems With Chicago Transaction Cost Analysis*, 99 IOWA L. REV. 175

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test his hypothesis that what appeared to be a transaction cost was actually an economically efficient social institution.¹⁹

Efficiency is the key word, but in a particular sense. In neo-classical microeconomics, transactions occur and wealth (or “value”) gets created when assets get transferred from those who value them less to those who value them more. The name for this value that gets created is “surplus.”²⁰ *Ceteris paribus*, the more surplus the parties jointly derive, regardless how they split it up, the more efficient the transaction.²¹ Impediments to the transaction that need to be overcome at some cost to the parties (i.e., that interfere with an ideally “frictionless” world of exchange) are transaction costs.²² The cleverness alone of Professor Gilson’s hypothesis about lawyers and efficiency is enough to warrant its place in the canon. In short, the application of the above economic theory to investment assets is the capital asset pricing model theory. This says that there will be an optimally efficient equilibrium with respect to the price of assets in diversified investment portfolios, assuming that investors are operating in the same time horizon, have the same expectations about future risk and return, information is perfectly available, and *there are no transaction costs*.²³ Professor Gilson wisely recognized that such a frictionless world exist only in theory, not reality: investors do not have the same time horizons, risk assessments, and information, and transaction costs abound. The delicious irony is that lawyers keep working because, *ceteris paribus*, the costs inherent in their activity are less than those that keep assets from being correctly priced under the capital asset

(2013). Those disciplines focusing on transaction costs tend to be those seeking to modify the ideal or perfect market assumptions of neo-classical economics under which, for example, transactions are costless, information is universally available, actors always act rationally, and so on. The literature is replete with internecine disputes over, for example, the extent to which greater breadth and inclusiveness (say, of non-market institutions) or relaxing the assumptions of rationality reduce the predictive power of theory. *See, e.g.,* Richard A. Posner, *The New Institutional Economics Meets Law and Economics*, 149 J. INSTITUTIONAL & THEORETICAL ECON. 73 (1993).

¹⁹ *Id.* at 256.

²⁰ *Id.* at 245 n.8. Professor Gilson’s note to this effect is short and sweet, but it indisputably incorporates the basic assumptions of neo-classical microeconomics. *See generally* RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 3-21 (6th ed. 2003) (giving a more thorough discussion of those assumptions).

²¹ Igor builds a Russian nesting doll of Soviet leaders at a total cost of \$5. Assume Igor has no other use for the doll, so he values it at \$5. It turns out that I would pay \$100 for a Russian nesting doll of Soviet leaders. There is joint surplus available here of \$95, and that surplus is unaffected by the price at which Igor sells me the doll. If Igor sells it to me without any other costs for \$100, the transaction is efficient and he has retained the entire surplus. If I buy it for \$5, the transaction is efficient and I have retained the entire surplus. If I buy it for \$52.50, the transaction is efficient and we have split the surplus evenly. The transaction is less efficient, if because of other costs, Igor and I together retain less than \$95 in the transaction.

²² *See* Gilson, *supra* note 1, at 253-54 nn. 36-37 and accompanying text.

²³ *Id.* at 250-53.

pricing theory.²⁴ Thus, since 1984, transactional lawyers have been able to rest easy in the knowledge they are not themselves transaction cost creating parasites, but “transaction cost engineers” who can “bridge the gap between [the] hypothetical world of perfect markets and the less-than-perfect reality of effecting transactions in this world.”²⁵

In order to justify the existence of transactional lawyering, Professor Gilson used the same disciplinary tools and fundamental assumptions about value and efficiency as those employed by the capital asset pricing theory itself. If there is no value created, there is no *raison d’être*. The proximate triggers of my present screed about those tools and the thesis were – of all things – Lee Smolin’s discussion in a new book, *Time Reborn*,²⁶ of “timelessness” in theoretical physics

²⁴ *Id.* at 253-54.

²⁵ *Id.* at 255. Pierre Schlag’s critique of the Chicago law and economics approach suggests, in retrospect, an alternative approach that Professor Gilson might have used if he were to write the article now. Schlag’s thesis is the Chicago approach failed to build upon Coase’s primary insight in *The Problem of Social Costs*, namely that the model of neo-classical economic theory – one that did not account for law, legal regimes, or transaction costs – was useless as a guide to policy creation (i.e., law) in a real world full of law, legal regimes, and transaction costs. Schlag, *supra* note 18, at 190-91, 201. The Chicago approach was instead to glom onto the portion of the article that came to be known as the Coase Theorem, and to focus on the reduction of transaction costs so as to permit markets to work as close as possible to the efficiency the neo-classical model predicted in a zero transaction cost ideal world. The problem, Schlag contends, is that the Chicago transaction cost analysis has no theoretical basis for distinguishing between a cost of production and a transaction cost. *Id.* at 209-12. This is because transaction costs arise as a conjunction of law, markets, firms, products, and uses. *Id.* at 214. What is a transaction cost in one market might be a production cost in another. *Id.* at 216. If we are talking about costs in steel manufacturing, for example, the cost of compliance with country of origin labeling might be a transaction cost, and the cost of lawyering to gain that information might be as well.

If we were to apply Schlag’s critique to *Value Creation*, what we would say is that the focus on transaction costs as opposed to production costs in a corporate merger or acquisition is meaningless. The creation of value from the deal depends wholly upon the exchange of information. There is no pragmatic or theoretical mileage in distinguishing transaction costs from production costs in that context. *Id.* at 217. Indeed, lawyers might well be cost engineers (as would be accountants, geologists, investment bankers, human resource specialists, benefits experts, and other professionals), but trying to justify what they do as “transaction cost engineering” (as opposed to themselves being transaction costs) under a model that aspires to a costless ideal pricing of capital assets simply is not worth the intellectual effort.

My thesis in this essay has to do with the implicit timelessness assumption in the theory Professor Gilson chose thirty years ago. If he were rewriting *Value Creation* today, and he heeded Professor Schlag’s critique, perhaps Professor Gilson might prefer a more capacious variant of economic theory (such as the New Institutional Economics). That, however, would be at the cost of the timelessness to which more abstract and idealized theory – like the capital asset pricing model – aspires, and which has been the basis of, among others, Richard Posner’s criticism of those variants. *See, e.g.*, Posner, *supra* note 18, at 76-77.

²⁶ LEE SMOLIN, *TIME REBORN: FROM THE CRISIS IN PHYSICS TO THE FUTURE OF THE UNIVERSE* (2013).

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and cosmology, and an insight about the distance between theory and reality in modern thought from the philosopher Alasdair MacIntyre's *After Virtue*.²⁷

I need to release myself here from any foolish consistency: I have co-authored a casebook about business organizations that regularly extols the virtues of planning and drafting to deal with future contingencies because that is the lawyer's stock in trade.²⁸ But if I have not already made it clear in other writing, I, like Yogi Berra, think it is tough to use contracts and forms of business organization to predict and control, especially when we are dealing with the future.²⁹ Here I go a step further. It is certainly uncharitable and probably presumptuous to say that, notwithstanding the cleverness of the "value creation" thesis, one that has stood the test of thirty years' time, something is *missing*. What that might be, I suggest, is the whole of a very complex reality – one that unfolds in real time, includes the subjective experience of the beetles as well as the objective observations of the entomologist, and is not fully captured by either academic theory or law practice "in a box."

B. Timelessness and Physics in a Box

I turn first to the idea of "timelessness" in physics and its applicability to the value creation thesis. Metaphors based on the paradoxes of number theory, complexity science, quantum mechanics, and relativity have inspired too many law review articles to list here. Most of them deserve to be read with at least one skeptical eyebrow raised, including the ones I have written.³⁰ What I want to borrow here from Smolin is (a) his sense that even when he contemplates the wonders (indeed, the beauty) of the mathematical models explaining the regularities of the universe, something is getting left out, (b) that the something has to do with the assumption of timelessness in the regularities, and (c) the relationship between timelessness and a future that is fixed and incapable of surprise. Smolin's assessment resonates not only when I think about the value

²⁷ ALASDAIR MACINTYRE, *AFTER VIRTUE: A STUDY IN MORAL THEORY* 88-108 (3rd ed. 2007).

²⁸ See LARRY E. RIBSTEIN & JEFFREY M. LIPSHAW, *UNINCORPORATED BUSINESS ENTITIES* 1-7 (4th ed. 2009).

²⁹ See generally Jeffrey M. Lipshaw, *The Bewitchment of Intelligence: Language and Ex Post Illusions of Intention*, 78 TEMP. L. REV. 99 (2005) [hereinafter Lipshaw, *Bewitchment*]; Jeffrey M. Lipshaw, *Contingency and Contracts: A Philosophy of Complex Business Transactions*, 54 DEPAUL L. REV. 1077 (2005).

³⁰ See, e.g., Jeffrey M. Lipshaw, *The Venn Diagram of Business Lawyering Judgments: Toward a Theory of Practical Metadisciplinarity*, 41 SETON HALL L. REV. 1, 34-48 (2011) (tackling metaphor theory, complexity science, Gödel's proof, and quantum mechanics in a fifteen-page span) [hereinafter Lipshaw, *Venn Diagram*]; see generally Jeffrey M. Lipshaw, *Dissecting the Two-Handed Lawyer: Thinking Versus Action in Business Lawyering*, 10 BERKELEY BUS. L. J. 231, 265 (2013) (explaining Bayes' Theorem, which employs conditional probabilities to update one's willingness to accept hypotheses in light of additional evidence).

creation thesis and engineering metaphor as theory, but also when I consider what transactional lawyers do.

For most of us, whether Smolin is right or wrong about physics and the paradox of timelessness will not make a significant difference in our lives. How physicists deal with the paradox, however, seems to me directly transferable to how social scientists *and* lawyers (entomologists and beetles in Professor Gilson's coinage) deal with it. In short, they ignore it. As to his field, Smolin calls this "physics in a box": the focus on a manageable slice of complex reality for purposes of deriving something universal and timeless. To describe physics this way is not an indictment of physics, but a way of understanding its limitations. Therein lies a lesson for law professors and lawyers.

Physics is the science that has made the greatest progress in reducing reality to mathematical models. But the mathematical models are not the reality. For example, a planet does not really travel in a mathematically idealized ellipse. It travels in an orbit that physics predicts (very accurately but not perfectly) *should* be an ellipse.³¹ All physics since Newton (even relativity and quantum mechanics) involve what Smolin calls the Newtonian paradigm.³² To apply mathematics in a meaningful way to a physical system (like a planet's orbit), scientists need to select only a few variables to study out of the rich reality of the universe. The definition of those variables is part of creating a conceptual subsystem of the universe – a configuration space – for study.³³ As Smolin observed, this is not reality, but a human conception:

The process by which the configuration space is defined starts with extracting the subsystem from the universe. Hence, the configuration space is always an approximation to a deeper and more complete description. The configuration and its representation in a configuration space are both abstractions – human inventions that are helpful for the method of doing physics in a box.³⁴

The Newtonian paradigm's relationship to time has to do with prediction – the relationship of the past and future. If you can identify a system, know its initial configuration, the initial direction and speed of changes in the system, and the forces the system will be subject to as it changes in time, you can predict the future state of the system.³⁵ In other words, the mathematics we use to describe and predict the flows of things is unchanging and timeless, even if in reality we move through moments in time.

But this entails a fundamental paradox. The goal is the reduction of all phenomena in the universe to laws that do not change with time. If the laws governing the configuration of space and the forces are thus timeless, then they

³¹ Smolin, *supra* note 26, at 7-9.

³² *Id.* at 43-44.

³³ *Id.* at 39.

³⁴ *Id.*

³⁵ *Id.* at 43-44.

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exist in some noumena, some metaphysical and ideal place where time does not matter. But if the universe is everything, how can they exist in some place outside the universe? Smolin's answer is that time cannot exist as a concept outside the universe. What is real is not the physicist's abstract and absolute conception of time, but is instead our experience within time from moment to succeeding moment.³⁶

When looking at subsystems in the Newtonian paradigm, physicists have dealt with the timelessness paradox by expelling it from their conception of nature.³⁷ There is an idealized clock sitting outside the systems being measured that constitutes an absolute, and within the paradigm, "time is inessential and can be removed from the description of the world."³⁸ In short, a timeless world is one in which every final configuration is simply the initial configuration acted upon by the laws of physics. Nothing novel or surprising can occur: "What the Newtonian paradigm does is replace causal processes – processes play[ed] out over time – with logical implication, which is timeless."³⁹ Indeed, one of Smolin's most radical concepts is that, cosmologically speaking, not even physical laws of nature are timeless. They too can evolve.⁴⁰

The idea of a succession of present moments is important in Smolin's conception, and it extends beyond physics to his reconciliation of the natural and social sciences.⁴¹ In our universe, time is real. We live in a succession of moments. The past was real, but is no longer. The future does not exist. We can make predictions but not perfectly. Most importantly, the future is capable of phenomena that are genuinely novel, in the sense that no knowledge of the past could have anticipated them.⁴² For Smolin, that is a problem, but not just because he is trying to understand why physics has been unable to get out of the box (i.e. to use its tools to resolve issues about the universe on a cosmological scale). Timelessness is also a problem when it comes to explaining human agency: "The

³⁶ This may be the hardest step for a non-physicist trying to grapple with this. Time is, of course, a variable in the mathematics of Newtonian physics, and Einstein's monumental breakthrough in special relativity was that time was not absolute. But as noted below, those conceptions of time are *timeless* in the sense that *they themselves* do not change over time.

³⁷ Smolin outlines nine steps in this expulsion, which he groups as Newtonian, Einsteinian, and cosmological, and deconstructs each. *Id.* at 93-94.

³⁸ *Id.* at 44.

³⁹ *Id.* at 51. Smolin describes the paradox alternatively as follows: "If the universe is all that exists, then how can something exist outside it for it to be described by? But if we take the reality of time as evident, then there can be no mathematical equation that perfectly captures every aspect of the world, because one property of the real world not shared by any mathematical equation is that it always some moment." *Id.* at xvi.

⁴⁰ *Id.* at xiv. This is, of course, why Smolin's thinking lies at the edge of science and philosophy. As he recognizes repeatedly, the claim of timelessness only succeeds *scientifically* if it can ultimately be tested by experience.

⁴¹ *Id.* at 263.

⁴² *Id.* at xiv.

seemingly most essential aspect of our experience of the world – its presentation to us as a succession of present moments – is missing from our most successful paradigm for the description of nature.”⁴³ In other words, just as time must be part of this universe and real, so must human agency. The past and the present have a vote about the future, but not a veto: “the future is restricted by, but not determined by, the present, so that novelty and invention are possible.”⁴⁴

This same critique of the timelessness – that the algorithms by which we model an independent reality *are or become viewed as* the reality – extends to social science and particularly economics. Smolin contends that the utility function and single equilibrium assumptions of neoclassical economics deal with time just as physics has: they abstract it away.⁴⁵ This is another instance of “science in a box.” The simplifying assumptions of the pure theory of neoclassical economics make for “a sense of inhabiting a timeless realm of pure truth, against which the time and contingencies of the real world pale.”⁴⁶ Put another way, there are no neoclassical economic functions that account for dealing with the pure surprise in a reality of successive moments – one in which real humans with real power to affect the future exist as surely as the elements.⁴⁷

C. Timelessness and Law in a Box

I am sympathetic to what Professor Gilson wanted to do thirty years ago – put some theoretical rigor behind what his intuition no doubt told him: “I am not merely wasting my time doing work as a transactional lawyer.” I do not disparage the value of the analytical tools available to transactional lawyers (and professors who study them) any more than Smolin rejects the value of general relativity or the Standard Model of Particle Physics. The algorithms of the law, like the algorithms of physics, are useful. Neither idealized model, however, constitutes the reality of the worlds in which either physicists or lawyers operate. If physicists can be misled into substituting the mathematical ideal for the reality of the universe, how much easier must it be for academic *and* practicing lawyers to mistake human abstractions of relationships and expectations, frozen into

⁴³ *Id.* at 44-45.

⁴⁴ *Id.* at 257. For another critique of the timelessness implicit in neo-classical economic theory as it relates to human subjectivity and agency, see Jeanne L. Schroeder, *The End of the Market: A Psychoanalysis of Law and Economics*, 112 HARV. L. REV. 483 (1998) (analyzing timelessness implicit in neo-classical economic theory as it relates to human subjectivity and agency).

⁴⁵ *Id.* at 261.

⁴⁶ *Id.* at 262. This relates to a more general problem that appears repeatedly in the law and economics literature. The observer expects that the actors will act jointly to maximize surplus – to make the entire pie bigger – in individual cases even when there is no reason to think that each actor has any motivation to do anything more than grab as much of the surplus – the pie – as happens to exist.

⁴⁷ *Id.* at 262-63.

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timelessness by their characterization as “law” or “rights,” for the reality of the relationship or the expectation in the here and now? That, I am afraid, is how I react both to grand academic theories of lawyering and to certain styles of practicing transactional law.

1. The academic version of law in a box

First, I want to address academic theories like the value creation thesis. They are attempts to use the tools of social science to make universal claims about the necessary *and* sufficient conditions of a particular state of the world; here as to mundane questions like why organizations use the corporate form, why lawyers aggregate in large firms, why people turn to lawyers in transactions. The lesson from Smolin is that *all* theory that freezes truth into timelessness has to be taken with salt in appropriate doses, and I believe the value creation theory needs a healthy one. “Transaction cost engineering” is shorthand for an explanatory model. As physics relies on mathematics to model a “configuration space” for matter and energy, so too Gilson’s theory uses economic utility and legal rights to model a configuration space in which business lawyers operate. Given the initial conditions, those who are in the business of planning for and controlling future contingencies plot the best curve to the desired final configuration. But neither utility in economic theory nor legal rights, at least as transactional lawyers draft them, are *real* except as conceptual models or linguistic abstractions of something else. I prefer to think instead of the concept of utility as an attempt to capture something abstract and universal about happiness, and the concept of a right (at least in the transactional context) as an attempt to capture something abstract and universal about particular expectations; in each case, they are concepts capable of systemization, reduction, measurement, codification, or the myriad other analytical or instrumental uses to which we put good ideas.⁴⁸

⁴⁸ Brian Bix has written about a rich tradition in the critique of “rights talk” — in particular the views of the less widely read Scandinavian legal realists Alf Ross and Karl Olivecrona. Brian H. Bix, *Ross and Olivecrona on Rights*, 34 AUSTL. J. LEGAL PHIL. 103 (2009). One question in legal philosophy is whether a “right” is something real. Ross, in the logical positivist tradition, viewed the concept of a right as metaphysical and, to that extent, meaningless. *See id.* at 104-05. This was a view distinct from that of legal positivists like Kelsen, Hart, and Raz, who looked to treat legal rights as normative claims, even if they are conceptually distinctive from purely moral expectations. *See id.* at 105. Olivecrona wanted to dispense with the concept of a right as some kind of metaphysical force, and instead have it viewed as a real but abstract medium like currency or performative sentences (“with this ring, I thee wed”). This was a view distinct from those of the American legal realists, who saw rights merely as predictions of what legal officials would do. *See id.* at 110. As Brian observes, however, philosophers might want to be circumspect in denying the reality of rights, particularly when, in practical reasoning, a right may well be a reason for action and therefore hardly something mystical, mythical, or metaphysical. *See id.* at 116. That is certainly a wise caution when we are talking about contract rights. *See infra* note 72.

The key move in the preceding paragraph is the idea that the abstractions of utility and rights are something different than the reality of the transactions themselves. Smolin starts with physics and extends his critique of timelessness to human affairs; Alasdair MacIntyre's controversial critique of utility, rights, and efficiency in social science – the very stuff of Gilson's value creation thesis – picks up the relationship to methodology in physics and dovetails nicely with Smolin.⁴⁹ Explaining the rational source of moral rules was to the Enlightenment philosophers as uncovering the mathematics of the physical world was to Newton. Before the Enlightenment, nobody tried to ground moral principles in reason; what was good was a virtue. In the Enlightenment, there arose competing theories of reasoned morality (e.g., Kantianism or utilitarianism), all of which claimed to articulate universal and timeless principles, but none of which could offer knockdown arguments to prevail over the others. This led either to relativism or to emotivism, the belief that any moral theory reflected the perspective of the proponent and not a truth.⁵⁰

MacIntyre's claim is that the units in which these reasoned approaches measure morality – utility and efficiency in the case of the consequentialism that underlies economics and rights in the case of deontology – are fictions that “purport to provide us with objective and impersonal criteria” when we are engaged in debates about which types of claims are to have priority over others.⁵¹ The key is the distance between reality (in our case, a business transaction) and conceptions of it based in law-like generalizations with predictive capabilities. Utility and contract rights are the timeless abstractions that economists and lawyers use as mediums in their particular sciences. They are to economics and law, respectively, what particles are to physics. And these sets of abstractions, the kind a transaction cost engineer could employ, are a relatively modern development.⁵²

⁴⁹ I realize that turning to Alasdair MacIntyre is deliberately provocative. I am going to put aside his politics and his main thesis about moral theory. Instead, I want to focus on what I find remarkably similar to Smolin's view of timelessness in physics: MacIntyre's assessment of timelessness in modern concepts like utility, rights, and efficiency. In a few words, MacIntyre's claim echoes philosophically what Tönnies claimed sociologically. MacIntyre advocates a return to Aristotelian or Thomist virtues ethics that hint of *Gemeinschaft*:

The flourishing of the virtues requires and in turn sustains a certain kind of community, necessarily a small-scale community, within which the goods of various practices are ordered, so that, as far as possible, regard for each finds its due place with the lives of each individual, or each household, and in the life of the community at large.

Stanley Hauerwas, *The Virtues of Alasdair MacIntyre*, FIRST THINGS (Sept. 7, 2007) <http://www.firstthings.com/article/2007/09/004-the-virtues-of-alasdair-macintyre> (quoting the Polish edition preface to *After Virtue*).

⁵⁰ See MACINTYRE, *supra* note 27, at 62.

⁵¹ *Id.* at 70.

⁵² *Id.* at 69. What first drew me to MacIntyre was this observation (correct or not) that “there is no expression in any ancient or medieval language correctly translated by our expression ‘a right’

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And nothing fits MacIntyre's characterization of a modern manager like Gilson's "lawyer as transaction cost engineer." Engineering implies a mechanist view, one that "include[s] both a thesis about the predictability of human behavior and a thesis about the appropriate ways to manipulate human behavior."⁵³ Therein lies the source of the critique. According to MacIntyre, "[w]hat managerial expertise requires for its vindication is a justified concept of social science as providing a stock of law-like generalizations with strong predictive power."⁵⁴ But social science, unlike physical science, turns out to be predictively weak and does not do a particularly good job of discovering law-like generalizations.⁵⁵ MacIntyre's explanation is remarkably congruent with Smolin's, and helps to explain why I am skeptical about Gilson's approach. Neither physical science nor social science has an answer for radical, unexpected, game-changing, paradigm-shifting *surprise*.

MacIntyre's point is not that social science generalizations *never* predict anything, but that they are weak. There are four sources of systematic unpredictability in human affairs, at least two of which presage Smolin's critique.⁵⁶ The first source is the nature of radical conceptual innovation, the predictability of specific instances which would be "itself conceptually incoherent."⁵⁷ We can predict generally that there will be radical innovation, or even that there will be inventions like the things that actually get invented. But we cannot predict the nature of the actual invention itself, or that would constitute the invention.⁵⁸ Consistent with Smolin's view, MacIntyre observes: "Physicists are able to tell us a good deal about the future of nature in areas such as

until near the close of the middle ages. . . ." The quoted passage continues: "the concept lacks any means of expression in Hebrew, Greek, Latin, or Arabic, classical or medieval, before about 1400, let alone in Old English, or in Japanese even as late as the mid-nineteenth century. From this it does not of course follow that there are no natural or human rights; it only follows that no one could have known that there were." I acknowledge that others dispute the development of the concept of rights as dichotomously as MacIntyre suggests. For example, there is a debate whether Roman law had a conception of "subjective rights," i.e., personal entitlements versus "objective rights," namely *ius*, or that which is right. See MICHAEL FREEMAN, HUMAN RIGHTS: AN INTERDISCIPLINARY APPROACH 18-19 (2d ed., 2011). Certainly ancient Jewish law encompassed subjective rights like contractual rights, albeit hardly in the same way as in modern commerce. See, e.g., Michael J. Broyde & Steven S. Weiner, *Understanding Rights in Context: Freedom of Contract or Freedom from Contract? A Comparison of the Various Jewish and American Traditions*, 1 J. BETH DIN OF AM. 48 (2012) (comparing contract law under Jewish law and common law).

⁵³ MACINTYRE, *supra* note 27, at 84.

⁵⁴ *Id.* at 88.

⁵⁵ See *id.* at 89.

⁵⁶ See *id.* at 93-100. The two I will not discuss here are what MacIntyre calls (a) the game-theoretic character of social life (*id.* at 97), and (b) pure contingency. See *id.* at 97, 99.

⁵⁷ *Id.* at 93.

⁵⁸ MacIntyre's example is that of a person who describes the future invention of the wheel, and in so doing realizes that she has just invented it. See *id.*

thermodynamics; but they are able to tell us nothing about the future of physics insofar as that future involves radical conceptual innovation.”⁵⁹ The second source of unpredictability is the incorporation of human agency into the process of observation and prediction, and the effect of such observation of agents upon one another. That is, even if another can predict my actions better than I can, she is no better at predicting her own decisions than I am at predicting mine. Assuming that her decisions will impact me, it means she really cannot predict my decisions, as she cannot predict her own, “and this clearly holds for all agents and all observers.”⁶⁰

It is important not to overstate the case because I do not think MacIntyre does. MacIntyre observes that there are at least four sources of elements in social life that have some predictive power: scheduling and coordination, statistical regularities, foreknowledge of certain causal regularities in nature (things like seasons, hurricane patterns, and the effect of viruses on health), and foreknowledge of certain causal regularities in social life (for example, that skin color in the United States may impact one’s ability to hail a cab).⁶¹ We can think of myriad examples where social science generalizations are useful, and ought to read Daniel Kahneman’s *Thinking Fast and Slow*⁶² if we cannot. Without them, the entire advertising industry and the field of political consulting would shut down.

MacIntyre’s normative conclusion, starting with the social sciences rather than physics as in Smolin’s case, nevertheless accords with Smolin’s view. We have some ability to predict and even structure the future based on what we know about the past and the present, “[b]ut the pervasive unpredictability in human life also renders all our plans and projects permanently vulnerable and fragile.”⁶³ MacIntyre’s criticism of bureaucratic managerial expertise – a claim to status he views as unwarranted in light of social science’s dearth of law-like generalizations and its weak predictive power – reflects my concern about conception of lawyers as transaction cost engineers. It is not a helpful metaphor in terms of telling us anything more than we already knew about transactional lawyers. Professor Gilson understood that the hypothesis was almost certainly incapable of empirical verification or falsification. The analytic mode, then, was to look backwards at a deal and find “tracks” supporting the hypothesis that

⁵⁹ *Id.* at 94.

⁶⁰ *Id.* at 95-97. This clearly anticipates the teachings of complexity science, wherein even relatively simple algorithms reflecting predictable actions of interdependent agents, repeated over and over, quickly result in unpredictable chaos. It also parallels Smolin’s invocation of multiple equilibriums and path-dependence in the complexity approach to economics. SMOLIN, *supra* note 26, at 260-61.

⁶¹ MACINTYRE, *supra* note 27, at 102-03.

⁶² DANIEL KAHNEMAN, *THINKING, FAST AND SLOW* (Farrar et al. eds., 2011).

⁶³ MACINTYRE, *supra* note 27, at 103.

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lawyers constrained the divergence between the assumptions of pricing theory and the real world. It gives us no law-like generalizations or predictive power. Despite Professor Gilson's hope "to develop a mode of analysis that allows identification of those activities that have value. . ."⁶⁴ I have no idea from his article, nor from any work I have ever seen since, how to make a prediction that one particular structure or drafting technique is more likely than another to bridge the gap or kill the deal.

In *Value Creation*, Professor Gilson, employing his skills as entomologist rather than beetle, reasoned his way from a foundational (and thus merely assumed) belief in the role of value and efficiencies in social life to a conclusion that transactional lawyers can justify their existence in light of that belief. It was not old-time religion, but it reflected a Kantian kind of faith in our ability to reason to moral ends. To quote MacIntyre, "It is one more illusion and a peculiarly modern one, the illusion of a power not ourselves that claims to make for righteousness."⁶⁵ It may have been satisfying, but it is also a recipe for being in the box, for dealing intellectually with life's inconsistencies and contradictions by writing them out of the explanatory algorithms.

2. The practicing version of law in a box

Law in a box is not merely an issue for academic theorists, but it is a mode of practice as well. What I have just discussed is the limitations of theory – here economic theory – against the complex reality of the world the theory seeks to explain. The value creation thesis is "law-and-economics in a box", and indeed probably more, than quantum mechanics is "physics in a box." I am not going to say that aspirations to scientific explanation of lawyering and legal structures lead directly to the practice of sophisticated transactional law as "lawyering in a box." But I think there is a relationship arising historically out of the development of professional *and* academic disciplines. As the world has become more complex and we need specialized expertise, all disciplines aspiring to the description of scientific regularities, including law, economics, and sociology, operate equally "in a box."⁶⁶ That is not a criticism of any discipline; rather it is recognition that

⁶⁴ Gilson, *supra* note 1, at 243.

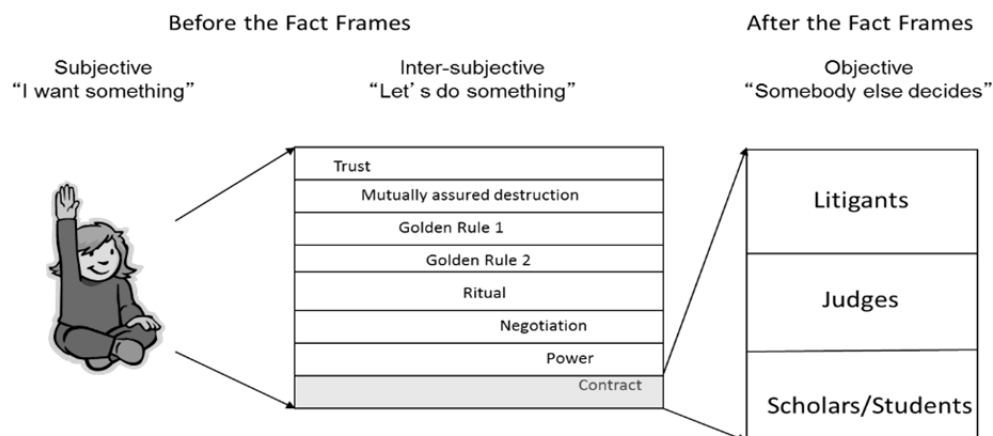
⁶⁵ MACINTYRE, *supra* note 27, at 107.

⁶⁶ For a historical account of the rise of modern "ongoing, disciplined community of inquiry," see THOMAS L. HASKELL, *THE EMERGENCE OF PROFESSIONAL SOCIAL SCIENCE: THE AMERICAN SOCIAL SCIENCE ASSOCIATION AND THE NINETEENTH-CENTURY CRISIS OF AUTHORITY* 24-47 (Johns Hopkins, 2000).

every discipline studies systems, and for the study to be meaningful many or most of the influences outside the system as we have defined it have to be ignored.⁶⁷

I teach first year contracts, and Figure 1 is a graphic I use to express my sense of the place law fits in the wider universe of human relationships and social institutions. I created it several years before reading Smolin's book. It shows that when we want something, and we need others in the process of obtaining it, there are many different ways to regulate the "you and I" relationship. We can trust, negotiate, engage in ritual, or practice mutually assured destruction. There are many boxes, and resorting to law by way of a contract is only one of them. Most of law school, as Professor Gilson himself observed,⁶⁸ is concerned with nothing more than an after-the-fact look at the consequences that arise under one particular system of regulation – the box that is the law.

Figure 1



Professor Gilson looked for confirmation of the value creation thesis in a narrative from his own experience as a deal lawyer. I am going to do the same from my own experience as a general counsel, "deal general," and business executive, not because I think one narrative trumps the other, but to highlight the possibility of different conceptions arising out of the similar sets of real world circumstances.⁶⁹ To give a non-legal example, compare the attitudes of the

⁶⁷ SMOLIN, *supra* note 26, at 38. As Smolin points out, he can plot the movement of a ball in a game of catch as a mathematical curve based on the laws of motion, but that ignores the fact that there are a variety of influences on the ball in flight not captured by the laws of motion.

⁶⁸ Gilson, *supra* note 1, at 303-05.

⁶⁹ Any assessment of our respective credibility about what actually happens ought to result in a draw. I am willing to concede that Professor Gilson was probably a more sophisticated deal lawyer and draftsman than I was, mainly because he started his career that way. I, on the other hand, was a litigator for the first ten years of my career, and transferred laterally to the corporate group after I

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marketing and sales department and the credit department to the acquisition of a new customer, and how each gets reflected in the abstract models of the business. The former cares primarily about inking the contract, moving product out the door, and accounting for the sale as revenue, regardless of the collection of the actual cash. The credit department, on the other hand, worries about the ultimate collection of the cash and minimizing the bad debt deduction from the accounts receivable asset on the balance sheet. It is fair to say that each practices in a box, the algorithms and arithmetic of which are not very complex. Operating in a box is neither good nor bad; it is in the nature of using an abstract and simplifying model to accomplish something. But the universe of the business is significantly (and perhaps infinitely) more complex than the accounting either for sales or bad debt, and in close cases it usually falls on somebody else in management to decide whether the benefit of the sale outweighs the risk of default.⁷⁰

How might deal lawyers operate in a box? Let us examine the heart of *Value Creation* (literally and figuratively), Professor Gilson's thirty-eight-page assessment of the ways an acquisition agreement could bridge gaps and cause deals to be closed, cast in terms of transaction cost economics and capital asset pricing theory. The latter theory yields efficient pricing if the parties have the same expectations about the value of the asset. If they do not, the lawyers can write an earn-out provision. The theory assumes common time horizons. If they are not the same, the lawyers can write covenants about the ongoing conduct of the business. The theory assumes perfect and information obtainable without cost. If that is not the case, the lawyers can write representations, warranties, indemnifications, and opinions. Apart from the theoretical justifications, that is a fairly common view among deal lawyers of what they actually do.

That is law in a box (again being neither good nor bad but necessary) for several reasons. First, it reflects the particularly modern abstraction of human expectations as "rights." The "transaction cost engineer" metaphor is consistent with seeing oneself as manipulating those rights for the purpose of designing and executing a transaction. The transaction cost engineer reduces a set of complex

was already a partner in the law firm, mainly because I hated litigating and it took me ten years to gather the courage to do something about it. After three intense years of doing acquisition work in the firm, I became a general counsel. So, my initiation to acquisition work was somewhat more from the top down than the bottom up.

⁷⁰ I am willing to say that nobody sees these conflicting models any better than the general counsel who happens also to be managing the deal process, as I often was. I cannot even recall the number of times I needed, for example, to tell our tax lawyers that I understood the adverse tax impact of a particular structure, but that a tax efficient structure from our standpoint created issues for the other side that would kill the deal. Professor Gilson would no doubt say that in doing so I was acting as a transaction cost engineer, and within the confines of his model that would be true. But I do not like the engineering metaphor because it suggests there was an algorithm for weighing that assessment, as though I were doing a calculation of the load-bearing capabilities of a roof truss, or the amount of earth we needed to move for a dam.

real world expectations to a set of rights embodied in the contract. She uses those abstract reductions to “bridge the gap” (Professor Gilson’s own metaphor) in the same way that a physical engineer uses the abstractions of mathematics to design a real bridge. Thus, a “right” bears the same conceptual relationship to fullness of an agent’s expectation as an ellipse bears to the planet’s real orbit or a fractal⁷¹ bears to a stalk of broccoli or the coastline of England. The planet’s orbit is not actually an ellipse, and the broccoli or the coastline is not actually a fractal. One is an abstraction of the other; they are not the same thing.⁷²

In my experience, the acquisition agreement was central to the process because it was a major milestone in the critical path to getting the deal done. One could close a deal with an agreement and no due diligence, but not the other way around. But even when I was practicing, I thought of the relationship of the agreement to the deal closing process as the relationship of the skeleton to the whole body. And that was a relatively limited metaphor because the whole of the deal closing process was something substantially less than the whole of the business that would have to be integrated once we transferred the purchase price. What we did in an acquisition agreement was ignore most of the metaphoric whole body of the either the deal closing process or the business, and draft rights as best as we could to deal with what we thought was important. Although it was an exaggeration, I used to tell the deal team there were only five issues in any deal that were important enough to involve me, the person most accountable to the CEO and the board for the execution of the legal work. Even as to those limited issues, the agreement itself was a deliberate abstraction and simplification; for example, the specifications of the pro forma balance sheets to be used for the post-closing price adjustment, the exceptions to GAAP that would be allowed in the financial statement representation and warranty (by the way,

⁷¹ A fractal is a geometric structure created when you begin with a given D-dimensional object (line, square, cube, etc.) and the repeatedly divide the length of its sides by a number N. MELANIE MITCHELL, COMPLEXITY: A GUIDED TOUR 103-09 (2009). There exists a clever stab at using the mathematics of fractals as a metaphor for the seemingly infinite capacity of a line of statutory or contractual text being parsed and then parsed again. See Andrew Morrison Stumpff, *The Law is a Fractal: The Attempt to Anticipate Everything*, 44 LOY. U. CHI. L. J. 649, 653-56 (2013).

⁷² Brian Bix’s admonition about the reality of rights is well taken in at least this respect. See *supra* note 48. My point here is that rights, at least as lawyers use them in contracts, whether or not they are real, are in any case deliberate abstractions or reductions of the more complex reality of the transaction at least at the time they get made. When, after the fact, you think the contract gives you a right to something (putting aside the complexities of contested interpretation), it can feel pretty real. The contract provisions may have been abstractions of the deal at the time the parties made it, but they are a very real currency regardless whether they accurately reflected the deal when a dispute arises later on. But I think lawyers need to be — and really great lawyers are — more cautious about becoming enamored of their abstractions as legal bon mots rather than bargaining chips. See *infra* note 87 and accompanying text.

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negotiated by the finance and accounting professionals and not the lawyers), and the caps, baskets, and survival periods for the seller's indemnities.⁷³

Second, the lawyer's contribution *qua* lawyer to an acquisition, whether solely by way of the acquisition agreement or the myriad documents that constitute a leather bound closing book, is merely the selective description of particular subsystems in the acquisition or the business as a whole, and to think otherwise is a lawyer's conceit. A prime example of a mission critical process that barely surfaces in the lawyers' documentation is the integration plan by which the acquirer achieves the synergies that justified the deal in the first place. In terms of financial theory, the buyer of any business is acquiring a future stream of cash flows, and it is unusual that buyers are willing to pay full value for it. Rather, the reason for the deal is invariably that the acquirer perceives an economic surplus – the creation of value – whether from costs that can be eliminated, other advantages of scale, or from particular skills that the buyer may have in making a business more efficient. If engineers in an acquisition actually make the pie bigger, they tend to be the financial and operational engineers who can identify the synergies and execute a post-closing integration that justify a price in excess of the value that the seller places on the business. And the resulting negotiation is indeed over the amount of the surplus the buyer will be required to share with the seller.⁷⁴ The point here is not whether lawyers, accountants, investment bankers, or manufacturer engineers create value, but that each of them undertake an analysis of a subsystem, creating useful models that are abstractions and something less than the whole of the reality of the business.⁷⁵

⁷³ Not because I was sanguine about ever enforcing it as a legal right, but because it was a key overlap between the due diligence and the agreement, I used to harp on the "sufficiency of the assets" representation. This is a seller's representation to the effect that the assets being transferred in the sale, less the excluded assets not being transferred, together with rights under ancillary agreements like a transitional services agreement, are sufficient to operate the business as it was operated immediately prior to the execution of the agreement and closing. In due diligence, this meant asking the question "have you identified every input that you will need after the closing to achieve the business's output?" For example, you are buying the Widget Division of Acme Corporation. A draft of the agreement says that every asset not used exclusively in the transferred business is an excluded asset. But it turns out that Acme purchases the steel used to make the widgets under a very favorable supply agreement that benefits Acme's Gewgaw Division as well. It would be cold comfort that Acme would breach the "sufficiency of assets" representation if the steel agreement were not transferred or some accommodation made in a transitional agreement. The important thing was to learn in due diligence that the steel agreement was important to the business.

⁷⁴ So, for example, it is commonly thought that a so-called "strategic buyer" will be able to pay more for a business than a so-called "financial buyer," because the former will have more opportunity for cost-saving or sales-expanding synergies.

⁷⁵ I note here that I disagree with Professor Gilson's characterization, made almost in passing, of the fleeting relationship of the parties in an acquisition ("where there is little anticipation of future transactions between the parties") as distinct from between the kind of relational contracting Stewart Macaulay has famously described. *See* Gilson, *supra* note 1, at 310. From a purely

Finally, the rights reflect the moment in time they were created, but exist timelessly, as though the reality of that moment exists forever, when in fact the world starts to make the plan obsolete almost as soon as it gets written. That is not to say we never get it right, but I believe the number of times we did *in our role as drafters* turns out to be far less significant than we would like to think it is (another lawyer's conceit). There are a number of possibilities: there really is no dispute about the issue when it arises later either because the parties turn out not to care or because the contract really is so clear that arguing something else is laughable;⁷⁶ the contract addresses the matter but in language that turns out sufficiently ambiguous and with no other interpretive evidence of actual agreement that the parties each have a colorable basis for their positions in negotiation or litigation;⁷⁷ or circumstances have so thoroughly changed as to make the contract irrelevant.⁷⁸

technical standpoint, while a public company merger might be that discrete, companies regularly do multi-billion dollar conveyances of their constituent businesses, and a key component is often what is known as the "transitional services agreement," under which the seller needs to continue to provide IT support, materials, payroll, and myriad other functions for a period of time. From a business standpoint, even in a one-shot acquisition, there can be continuing relationships. What were before intra-company transfers of products or services may need to be reflected in arms'-length agreements between the seller and the buyer of the transferred business. That was common in the automotive parts industry. In the chemical business (where I was a general counsel), it was not unusual to buy or sell a plant within a larger plant owned, say, by a Dow or DuPont or Occidental, and which bore the hallmarks of a repeated transaction. In both instances, a dictum from one of my colleagues at AlliedSignal, one of the finest deal professionals I have ever met, applied: nothing protected the seller from post-closing friction like a buyer who had purchased a successful business.

⁷⁶ That is not to say that I have not taken some pretty laughable positions in my day.

⁷⁷ See generally Lipshaw, *Bewitchment*, *supra* note 29 (discussing situations where contractual language is ambiguous and possible solutions).

⁷⁸ As an example of the last, I once spent almost a year negotiating an international joint venture of two businesses representing close to a billion dollars a year in annual sales. We did not want a negotiated "buy-sell" or "exit" provision for a number of reasons: we thought we would be the ultimate buyer; we thought we had more bargaining leverage; and the other party wanted the valuation to be by appraisal rather than market test. We ended up agreeing to one of the most complicated contract provisions I have ever been part of drafting, a sort of hybrid "I cut-you choose" (i.e. the party wanting to sell names a price but has to be a buyer or seller at that price) with an appraisal backup, parts of which were in the other party's native language and parts of which were in English (if you want to call it that). The entire provision was geared toward our being the buyer and the other side the seller, with our trying to make the mechanism work to set a price based on an anticipated limited market for the business (hence a lower price) and the other side trying to have the business evaluated on the appraised value of bricks and mortar rather than cash flow (hence a higher price). The ultimate irony, of course, was that within a very short time we wanted to sell, the motivations were largely reversed, the provision we negotiated was inapplicable in the circumstances, and there was nothing in the contract covering the situation one way or another.

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In my experience, lawyers tend to see themselves (almost certainly because of the centrality and critical path aspects noted above) as playing a larger role in the acquisition process than they deserve. Perhaps because I was a hybrid lawyer-business person, I am more sensitive to MacIntyre's critique of modern claims of bureaucratic managerial expertise as applied what lawyers really do versus what they think they do. When we draft such an agreement, are we controlling the future with law-like generalizations and predictive power embodied in our covenants, indemnities, and conditions? Or, as MacIntyre suggests, are our "notion of social control embodied in the notion of expertise. . . a masquerade"?⁷⁹ I am not as passionate as MacIntyre in my own critique of Enlightenment rationality or in the application of that critique to what I did for a living, but I am willing to say that my own work abstracting our expectation as rights in the agreement may have been as much masquerade as predictive control.

III. LAW OUT OF THE BOX – "COURTING SURPRISE" IN THE SUCCESSION OF MOMENTS

What then would it mean to theorize about or practice law out of the box? I have suggested the predominant metaphor of lawyer as warrior – arguably apropos for a litigator – is misplaced in a transactional setting, something with which I suspect Professor Gilson would agree.⁸⁰ It did not occur to me then to propose an alternative metaphor of "engineer"; I proposed "psychoanalyst." On further reflection, I continue to prefer mine to Gilson's for the reason that engineering as metaphor still reflects "law in a box": resort to law-like generalization we hope has predictive capability. Lawyering out of the box means understanding that the mechanisms of the law like contract rights – with their abstract timelessness – are something quite different from action within time. To the extent human agency impacts action, i.e. involves choice, it is the result of an agent's subjective encounter with reality as it exists at that moment of time, and that is something wholly within time and not timeless. Operating within the succession of moments that is time means that reality often trumps theory, often to our surprise, and we need to adapt to the surprise.

When we engineer around problems, we use theory in an effort to predict, control, and avoid surprise. What I found so powerful about the alternative metaphor was a characterization of psychoanalytic practice that is so consistent with the Smolin and MacIntyre critiques. Happily for the point I want to make here, the theorist Steven Cooper used the term "[c]ourting [s]urprise" for the psychoanalytic clinician's experience in applying theory to the real life patients

⁷⁹ MACINTYRE, *supra* note 27, at 107.

⁸⁰ Jeffrey M. Lipshaw, *What's Going On? The Psychoanalysis Metaphor for Educating Lawyer-Counselors*, 45 CONN. L. REV. 1355, 1358-60, 1367-68 (2013).

bring to the office.⁸¹ What he meant is that the aspiration of the analyst *qua* scientist to law-like generalizations was not only bound to be disappointed, but that they were also likely to interfere with the job of analyst *qua* helper. Cooper writes, “We are deeply attached to our theories, for they follow us around, for better and worse, like our character, our adaptation. They seduce us and force us to see things through a particular lens.”⁸² The answer to the conundrum is not that we reject predictive power of theory, any more than MacIntyre was willing to say that there is nothing systematically predictable in human life. There is. Cooper’s answer is consistent with the recognition that theory here is something distinct from the reality of the patient’s experience, and that its predictive power is weak. Hence, the analyst is obliged to reflect on his “own resistance to learning from new experience in revising theory.”⁸³ Analysts do not engineer or stitch their analysands back to health.⁸⁴ They use their theories, their ways of making sense,⁸⁵ but theory is merely “the guide who leads and determines the analyst’s formulations and interpretive activity through shifting foci on past, present, and future threads within the patient’s associations and the interaction between patient and analyst.”⁸⁶

Over the last eight years, I have devoted myself to various expressions of a similar basic point: one lawyers in a box if one fails to see that relationships evolve in a series of moments, and that the abstractions of the past or present, even when embodied timelessly in lengthy and expensive documents, while having a vote, do not have a veto over the future. Our contracts and our legal techniques are our theories, and we can be deeply attached to them. Sometimes getting a deal done means foregoing precisely those rights cleverly negotiated into a contract.⁸⁷ Yes, in one moment the lawyers cleverly create a model that affords the seller a right, whether or not that right actually reflects either of the parties’ expectations in the matter. In the next moment, however, the situation changes. The true creativity in that succeeding moment is to recognize the error in a foolish attachment to one’s hard-own contract and insistence on one’s idealized and timeless rights. It is neither opportunism nor an abandonment of principle and integrity. It is instead an appreciation if not a courting of surprise –

⁸¹ STEVEN H. COOPER, OBJECTS OF HOPE: EXPLORING POSSIBILITY AND LIMIT IN PSYCHOANALYSIS 264-65 (2000).

⁸² *Id.* at 265.

⁸³ *Id.* at 267.

⁸⁴ In the Freudian ideal, the analyst merely listened in the manner of a scientific investigator. Freud, in a letter to Sandor Ferenczi, said, “I consider that one should not make theories. They should arrive unexpectedly in your house, like a stranger one hasn’t invited.” *Id.* at 268.

⁸⁵ *Id.* at 269.

⁸⁶ *Id.* at 271.

⁸⁷ See Jeffrey M. Lipshaw, *Law as Rationalization: Getting Beyond Reason to Business Ethics*, 37 U. TOL. L. REV. 959, 1016-17 (2006) (describing a situation where negotiated rights were forfeited to complete deal).

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a view that the theory we used, the contract we drafted, the business form we adopted, simply no longer applies and we have to adapt now, regardless what we did before. As Smolin put it, “the future is restricted by, but not determined by the present, so that novelty and invention are possible.”⁸⁸ Perhaps at times we *are* engineers, but we are also at times artists, narrators, inventors, friends, confidantes, counter-weights, poets, muses, teachers, learners, and creators.

IV. CONCLUSION

I am flattered beyond words to be invited to participate in this recognition of Professor Gilson's iconic work and want to double down on my chutzpah in presuming to engage with him at all.⁸⁹ Thinking about the discussions Professor Gilson and I have had about *Value Creation* and my reaction to it, I realize we may be talking past each other. *Value Creation* does not try to address the issue it raised for me: the science or the metaphysics of reconciling the subjective inner experience of the economic actor (what is it like to be a beetle living through real time?) and the attempt to generalize and predict something about that actor by way of an objective and scientific economic model. As Smolin notes, this is the “hard question of consciousness” – how do we explain the fact that others even *have* an inner experience since, fMRI technology notwithstanding, we cannot observe it? Debating whether the matter will ever be resolved takes on almost religious overtones even among scientists: the argument stems from competing intuitions about, on one hand, the power of human rationality to answer everything versus, on the other, a sense that the very existence of paradoxes and antinomies mean that there is a limit to what we can know (versus merely belief). Smolin, for example, views it as a real mystery, “one beyond what science can tackle with present knowledge.”⁹⁰

I am more hung up than Professor Gilson on the limits of our knowledge or possible knowledge. What I know from these exchanges with Professor Gilson is that we agree about the incompleteness and fleeting truth of all theory as compared to the complexity and change that constitutes the real world. Several years ago, I had the pleasure of listening to Professor Gilson talk about the relationship of academic disciplines to the real world, and why it was so rewarding to be a legal academic. He said:

⁸⁸ SMOLIN, *supra* note 26, at 257.

⁸⁹ On July 8, 2013, I did a search in the Westlaw TP-ALL (All Law Reviews, Texts, and Bar Journals) database for my name and turned up 166 documents. When I did it for Professor Gilson, I turned up 3,041. So in the spirit of creating mathematical models for things that are difficult to model, I conclude that he scores a whopping 18:1 on the generosity index, which is a ratio of the relative scholarly influence of the interlocutors.

⁹⁰ SMOLIN, *supra* note 26, at 267.

[O]ur world doesn't fall into little disciplinary boxes. We deal with real people doing real things; lots of them are rational, lots of them have a little bit of irrationality, and sometimes we are trying to impose rationality on what is often an emotional problem, like busting up a two family closed corporation.⁹¹

Since then he has observed, "It is an interesting question . . . why people gravitate to single explanation theories in their academic life when no one ever lives that way. Single factor theories are wonderful because they illuminate something we hadn't understood before. But why do so many academics pretend that they are also complete?"⁹² I agree entirely with the idea that if we are to have any hope as entomologists, it is because, as he put it, we think systematically about how value gets created: "our understanding of that will change as we get smarter, and change as the world changes and creates more or less frictions."⁹³ If we disagree at all, it is about the things we will never resolve anyway – like the hard question of consciousness or reconciling the entomologist's observations with the beetle's experience.

But I doubt we even disagree about that.

⁹¹ Carney, et al., *supra* note 3, at 186.

⁹² Email from Ronald J. Gilson, Charles J. Meyers Professor of Law and Business, Stanford Law School, Marc and Eva Stern Professor of Law and Business, Columbia University, School of Law to Jeffrey M. Lipshaw, Assoc. Professor of Law, Suffolk Univ. Law Sch. (June 29, 2011) (on file with author).

⁹³ Email from Ronald J. Gilson, Charles J. Meyers Professor of Law and Business, Stanford Law School, Marc and Eva Stern Professor of Law and Business, Columbia University, School of Law, to Jeffrey M. Lipshaw, Assoc. Professor of Law, Suffolk Univ. Law Sch. (July 13, 2013) (on file with author).