1. Evolutionary method in law and economics

Law and the economy evolve together. Changes in one affect the other purposefully, but not predictably. The evolutionary path of the economy as affected by law has been “driven by artificial selection of changing customs that ignited sets of endogenous forces” (Atkinson 2010, p.290). The evolutionary path of the law as affected by the economy has been the result of changing economic circumstances, particularly and historically the widening of markets.

EVOLUTIONARY ECONOMICS

Understanding the role of evolution in society, such as the economy, requires first overcoming the conventional wisdom which might equate evolution of the economy with what has been identified as “Social Darwinism” that developed during the nineteenth century. This coarse application of the biological evolution theory of Charles Darwin, which promoted such concepts as “natural selection,” “struggle for existence” and “survival of the fittest,” to society conveniently acknowledged that the state of affairs at that time with all of its inequities was still the best attainable and could not be improved through the actions of government. This was not the only application of Darwinian evolutionary principles to society. Those critical of the status quo also used Darwinian arguments (Hodgson 2004, p.430). A principal advocate for this view of the application of evolutionary principles to society, Herbert Spencer, originated the term “survival of the fittest” (Hodgson 2004, p.432). Spencer did not associate his evolutionary approach with Darwin “because he believed that he had published a valid theory of evolution prior to Charles Darwin” (Hodgson 2004, p.432). Spencer took the evolutionary concepts which were considered to be a radical departure from conservative and religious principles and applied them to promote the *laissez-faire* status quo (Hofstadter [1944] 1955, pp.44–7). Hofstadter revived the term “Social Darwinism” in his 1944 book. It became a term of opprobrium applied to “racism, fascism, imperialism or sexism” (Hodgson 2004, p.428).

These negative connotations of the term have been used to challenge the application of evolutionary principles with respect to social change. The explanatory power of evolutionary principles in evolutionary economics, the evolution of law and institutional adjustment based upon the work of Thorstein Veblen and John R. Commons, which is the subject of this book, does not implicate Social Darwinism.

Thorstein Veblen engaged in the application of Darwinian evolutionary principles to his analysis of the economy. He distinguished evolutionary method from the focus of classical and neoclassical economists on “laws of the normal or the natural, according to a preconception regarding the ends to which, in the nature of things, all things tend” (Veblen [1919] 1932, p. 65). Such ends included, for example, market equilibrium. Veblen’s critique called for an evolutionary economics. “For the purpose of economic science the process of cumulative change that is to be accounted for is the sequence of change in the methods of doing things – the methods of dealing with the material means of life” (Veblen [1919] 1932, pp. 70–71). The economy is not a static system tending toward equilibrium and the study of that system must consider that dynamism.

Provided the practical exigencies of modern industrial life continue of the same character as they now are, and so continue to enforce the impersonal method of knowledge, it is only a question of time when that (substantially animistic) habit of mind which proceeds on the notion of a definitive normality shall be displaced in the field of economic inquiry by that (substantially materialistic) habit of mind which seeks a comprehension of facts in terms of a cumulative sequence. (Veblen [1919] 1932, p. 81)

The evolutionary method in economics recognizes a system which changes as the result of people dealing with the means for social provisioning. It is a method which looks to causation as it relates to change.

Evolutionary economics, also known as institutional economics, is this study of changes in social provisioning as the results of cumulative causation. Within institutional economics there are “highly integrated discussions of the history of the entire legal/social/economic system, including the evolution of social conventions and norms (customs), laws, and economic organizations” (Rutherford 1994, pp. 93–4).

Representative of the work of institutional economists on this evolutionary method are Thorstein Veblen with his emphasis on “customary rules and non-intentional processes” and John R. Commons with his focus on “judicial and legislative processes” (Rutherford 1994, p. 94). Evolutionary theory as applied to the economy embodies “a Darwinian concept of cumulative and constant evolution in which change is developmental, not mechanical” (Hamilton 1970, p. 4). The economy changes as a result of

actions taken by humans as they respond to changes in the material facts of life. The study of this evolutionary process involves a recognition of the “*central* analytical importance of institutions and institutional change, with institutions acting both as constraints on the behavior of individuals and concerns and as factors shaping the beliefs, values, and preferences of individuals” (Rutherford 2011, p. 347; emphasis in original). Evolutionary economics examines behavior within the context of social constructs or institutions which influence economic decisions.

Veblen’s critique of classical economics for not being an evolutionary science contrasted the role of causal relations in formulating an evolutionary science to the deductive system of classical economics moving inexorably toward equilibrium. For Veblen an evolutionary economics involved a Darwinian examination of cause and effect (Veblen [1919] 1932, pp. 56–81). Although Darwinism addressed biological evolution, the application of Darwinian evolutionary principles to social change need not rely on analogies of Darwinian biological evolution to the evolution of the economic system. There “are crucial ontological differences separating the natural and social domains. Social reality has the property of *transmutability* – meaning the social environment, unlike the natural domain, may be altered in fundamental ways by human agency” (Brown 2013, p. 210; emphasis in original). Acknowledging that the use of biological analogies to explain evolutionary economics can be “inexact and sometimes treacherous” (Hodgson and Knudsen 2010, p. 22), Hodgson and Knudsen proposed generalized Darwinian evolutionary principles to form an overarching theoretical framework for social evolution (Hodgson and Knudsen 2010). The

differences between and within the two spheres suggest that the details are very different, and there are bound to be many detailed mechanisms in the social science world that are not found in biology. Consequently, the application of general Darwinian principles cannot do all the explanatory work for the social scientist. Darwinism alone is not enough. (Hodgson and Knudsen 2006, p. 15)

Our analysis of co-evolution of law and economics involves such detailed mechanisms.

One difference between the biological and social spheres is intentionality. Although intentionality does not deny the general Darwinian principles of variation, inheritance and selection, in contrast to biological evolution from natural selection within a given environment, evolution of the economy involves the property of transmutability or the application of human agency intentionally to affect the social environment. Human agents, such as judges, select among alternatives in order to achieve particular ends (Parsons 1942, p. 249; Commons [1924] 1995, p. 376) through

what Commons referred to as “artificial selection” (Commons [1924] 1995, p.376). The nineteenth century sociologist Lester Ward coined the term “artificial selection” in its social context. It was part of his argument for the conception that “democratic societies could and should shield their citizens from the negative side effects of capitalist evolution” (Chasse 2012, p.590). This conception for Ward was in contrast to the dominant one of the late nineteenth century economic formalists for whom impersonal, universally applicable market forces made efforts by societies to protect their citizens from the damaging side effects of capitalism “counter-productive because they would frustrate market forces” (Chasse 2012, p.590). Artificial selection as related to the social environment involves association of probable consequences with particular practices or policies and selection among practices and policies based upon discretionary judgments about desirable outcomes. Subsequent conflicts which arise require an assessment of the effectiveness of the selected practice or policy and consideration of the unintended consequences which are exposed by the endogenous forces ignited thereby. Intentionality is not inconsistent with Darwinism inasmuch as intentional actions by human agents occur within a social system in which the consequences of an agent’s actions are unpredictable because the agent cannot plan or predict the actions of others which will affect the overall outcome (Hodgson and Knudsen 2010, pp.48–9). Our attention is on the detailed mechanisms, such as intentionality, that affect evolutionary processes in economics and law.

We examine the specific decisions (causes) which resulted in specific outcomes (effects) involving major trends in law and economics in the nineteenth and twentieth centuries. We recognize that the economy and the law evolve in a broader social system subject to Darwinian evolutionary principles. For our purposes, the explanatory power of evolutionary analysis focuses on the practical implications of emerging business practices and decisions in the legal system designed to resolve disputes between human agents with conflicting interests and, often, conflicting expectations about the future.

LAW AS A LIMIT ON ECONOMIC CHANGE

Thorstein Veblen characterized the influence of law on economic behavior as being backward-looking, tying society to the past. “The underlying metaphysics of scientific research and purpose, therefore, changes gradually and, of course, incompletely, much as is the case with the metaphysics underlying the common law and the schedule of civil rights” (Veblen [1919] 1932, p. 149). Veblen went on to cite areas of the law reflecting this

tie to a past dominated by status, such as “inheritance, vested rights, the outlawry of debts through lapse of time, the competence of the State to coerce individuals into support of a given policy” (Veblen [1919] 1932, p. 150). Law inhibited the accommodation of society to the technological demands of industry.

In this respect, as in others, Veblen was skeptical about the role of institutions, such as the law, which reflected ceremonial values. In *The Theory of Business Enterprise* Veblen examined the role of natural liberty concepts in the formulation of law.

Legislation and legal decisions are based on the dogma of Natural Liberty. This is peculiarly true as regards the English-speaking peoples, the foundation of whose jurisprudence is common law, and holds true in an especial way in America. . . . The dogma of natural liberty is peculiarly conducive to an expeditious business traffic and peculiarly consonant with the habits of thought which necessarily prevail in any business community. (Veblen [1904] 1936, p. 269)

Veblen observed how freedom of contract had become a first principle of the natural rights metaphysics of the law during the period of handicraft production. Under the standardization of the machine process, “the inalienable freedom of contract began to grow obsolete from about the time it was fairly installed; obsolescent, of course, not in point of law, but in point of fact” (Veblen [1904] 1936, pp. 274–5). As with other ceremonial institutions holding to principles inconsistent with the advance of the machine process, the common law embodied principles of natural rights

inculcated by the discipline of everyday life in the eighteenth century before the advent of the current situation; whereas the discipline of everyday life under the current technological and business situation inculcates a body of common-sense views somewhat at variance with the received natural-rights notions. (Veblen [1904] 1936, p. 283)

Law was one of the institutions which impaired the progress of technology and enforced standards of status and predatory behavior. The rootedness of law in obsolete principles of natural liberty constrained the advance of the mechanical processes of cause and effect with the result that “business ends have taken the lead of dynastic ends of statecraft, very much in the same measure as the transition to constitutional methods has been effectually carried through. *A constitutional government is a business government*” (Veblen [1904] 1936, pp. 284–5; emphasis added). Veblen recognized the “capture” of the government by business interests.

For Veblen the resistance of law to the forces of technological change

made law an instrument of the business interests which would use it against the forces of change. Deeply skeptical of the ability of even democratic institutions to adapt to the needs of the society in contravention of the interests of elites, Veblen was not an advocate for incremental changes in the law as a vehicle for modifying the path of the business interests. More hopeful for the ameliorative aspects of law directed at specific social improvement and the interests of the public, John R. Commons, Walton Hamilton, Wesley N. Hohfeld and Robert Hale advocated for changing the law to protect citizens from the damaging side effects of capitalist evolution.

LAW AS A FORCE FOR ECONOMIC CHANGE

Questions of the role of law in the development of the economy drew the attention of other institutional economists following Veblen. John R. Commons, Robert L. Hale and Walton H. Hamilton were at the center of what has been termed the “first law and economics movement” during the early twentieth century. For Hamilton, law and economics was an analytical tool for problem-solving, such as the problem of the public control of business (Rutherford 2011, p.61). Hamilton considered the responsible control of business to be “the greatest of economic problems because it comprehends most of the others . . .” (Hamilton et al. 1929, p.25). For that purpose “law is and must continue to be used as an important agency of social direction” (Hamilton et al. 1929, p.25). Unlike Veblen, Hamilton saw the potential for law to be forward-looking in order to foster policies which constrained business for the public good.

Robert L. Hale focused on rate regulation. His analysis of rate regulation drew on the work of Wesley N. Hohfeld, who described ownership of property as a “bundle of rights” related to the physical property itself. Hohfeld’s analytical approach to property rights influenced interwar American institutionalists (Fiorito and Vatiero 2011, p.200). Hohfeld enumerated those rights within the context of jural correlatives and opposites of rights and duties (Horwitz 1992, pp. 151–6). For Hale, agreements between parties addressed particular legal rights and duties which “are created (or modified or extinguished) by virtue of the power of mutual coercion (in the form of pre-existing rights) vested by the ordinary law in the two contracting parties” (Hale 1920, p.452). Hale saw coercion to be at the core of every private agreement between parties, and the pre-existing rights granted to each party by law determined the extent to which one party could use coercion to his benefit. Hale described coercion as a “delegation of state power to private individuals” (Horwitz 1992, p. 164). Law

could limit the power of certain individuals or confirm the coercive power of others.

John R. Commons analyzed the transaction as the basic unit of economic theory. “Transactions were the basic units in Supreme Court deliberations” (Chasse 2012, p. 599). Parties to transactions enter with conflicting interests but depend upon each other for mutually beneficial outcomes (Chasse 2012, p. 599). Using Hohfeld’s model of jural correlatives and opposites, Commons expanded on it extensively in *The Legal Foundations of Capitalism* (Fiorito and Vatiero 2011, p. 203). In addition to his three tiers of transactions – bargaining, managerial and rationing – Commons emphasized the role of the state in making transactions authoritative by enforcing the working rules governing transactions. Commons also introduced the concept of “futura” and the effect of law on expectations which would be more fully discussed in *Institutional Economics*. Where Hale saw state-sanctioned coercion as part of each transaction, Commons identified the relative power of parties as playing a critical role in determining the outcome of transactions.

In *The Legal Foundations of Capitalism* Commons conducted a historical review and interpretation of decisions of the United States Supreme Court (hereinafter the “Supreme Court”). His review provides an explanation of the evolution of the law with respect to the definition of property, the regulation of rates and prices and the legal status of the corporation. Those decisions were Commons’s evidence for his proposition that the legal system is involved in resolving disputes and forming or modifying working rules to give stability of expectations for future transactions (Commons [1934] 1961, pp. 239–40).

Hohfeld, Hale and Hamilton made significant contributions to the first law and economics movement as it related to the Progressive Movement of that time and to the jurisprudential philosophy of Legal Realism. They influenced scholarship of their time on topics of rate regulation, public control of business, anti-trust policies and wage and price policies. Hamilton had a key role in the early development of the National Recovery Administration created in 1933 under the National Industrial Recovery Act with its codes and industry-wide agreements regarding coordination in place of competition. Hale challenged the prevailing basis for public utility rate setting which was focused on the rate of return. All of these institutional economists found the law to be malleable, contrary to the traditional formalist understanding of law as an unchanging set of principles, such as under natural law, applied to produce predictable outcomes.

LEGAL REALISM AND EVOLUTION OF LAW

Purposeful action taken to achieve anticipated consequences through artificial selection drives the co-evolution of law and economics (Commons 1950, p. 193). It is an iterative process in which anticipated and unanticipated consequences produce conflicts that may result in changes in the law to bring about different consequences or to adapt to the consequences. “If we are to watch law’s relation to civilization we must therefore watch law’s development in civilization – and what we watch will be a different thing from time to time and place to place. The sole inescapable common element is dealing with disputes” (Llewellyn [1930] 1986, p. 109). Changes in the law have consequent effects on the evolution of the economy. Warren Samuels refers to this co-evolution as the “legal–economic nexus” where “the law is a function of the economy and the economy (especially its structures) is a function of law” (Samuels 2007, p. 27). With each as a function of the other, law and economics are “jointly produced, *not* independently given and *not* merely interacting” (Samuels 2007, p. 27; emphasis in original). As co-determinants of each other the dynamic relationship between law and economics has been central to the analysis of the economy by original institutional economists.

The proponents of the potential for law to mitigate the harmful consequences of capitalist development and the element of coercion in transactions looked to the prospect for law to change. Lawyers and judges in the eighteenth and nineteenth centuries emphasized formalism in the law expecting that “every legal question has a right answer that a properly trained lawyer or judge can deduce by correctly applying the canonical legal materials to the facts of the case” (Stephenson 2009, p. 193). In contrast Legal Realism recognized the indeterminacy of the law meaning that when a court applies the law to a particular set of facts there is no unique outcome.

Influential thinkers, such as Oliver Wendell Holmes, Jr. and John Dewey, provided a basis for Legal Realism proponents to argue

that the law rarely if ever supplied determinate answers to legal questions, at least in hard cases, and that there was a significant gap between the real reasons that judges reached their decisions and the legalistic explanations advanced in their written opinions. (Stephenson 2009, p. 197)

Indeterminacy undermined the confidence which had long been accorded to the decisions of judges under formalism running back to the Middle Ages when “there was the notion of a permanence in the law imparted by its connection with immemorial custom. Law was not ‘made’ according

to this medieval view; it was ‘declared’ by those familiar with the custom of a certain territory” (Hogue 1966, p.9). The persistence of this classical outlook on the law well into the nineteenth century came under attack in such venues as the 1880 Harvard lectures of Oliver Wendell Holmes, Jr. on the common law. Holmes began his examination of the common law with the comment that the

life of the law has not been logic: it has been experience. The felt necessities of the time, the prevalent moral and political theories, intuitions of public policy, avowed or unconscious, even the prejudices which judges share with their fellow-men, have had a good deal more to do than the syllogism in determining the rules by which men should be governed. (Holmes [1881] 2004, p. 1)

The observation that judges had more to do with making law than with declaring it was taken up by the Legal Realists at the beginning of the twentieth century when legal scholars, such as Jerome Frank, Karl Llewellyn, Robert L. Hale and Arthur Corbin, “endeavored to make plain that more is involved in the process of judging than just the application of precedents, rules and principles” (Tamanaha 2009, p. 767). The challenge to formalism made by Legal Realism drew primarily upon appellate court decisions (Macaulay 2005, p. 371). Appellate decisions were the decisions most likely to be reported and published. They were the decisions which focused upon the law of the case.

The role of juries in the resolution of disputes at the trial court level did not receive any significant attention by the early proponents of Legal Realism. The long-standing division between the role of the jury as “trier of fact” and the judge as the “trier of law” in the trial court involves the jury applying the law as pronounced by the judge to the relevant facts as presented at trial and discerned by the jury.

Most cases which go to the jury on a ruling that there is evidence from which they may find negligence, do not go to them principally on account of a doubt as to the standard [for negligence], but of a doubt as to the conduct [which the plaintiff alleges to be negligent]. (Holmes [1881] 2004, p. 77)

Matters of fact are rarely appealed inasmuch as the basis for appeal is some error made by the judge in applying or enunciating the law.

Karl Llewellyn observed the role of law and judges in resolving disputes when he described law as “the interference of officials in disputes” (Llewellyn [1930] 1986, p. 11). John R. Commons, who Llewellyn acknowledged for his behavioral approach to analyzing the law, considered conflicts of interest, which manifested themselves in the courts as disputes, as the result of scarcity and the resolution of such disputes as

“collective action.” Llewellyn, however, did not treat the resolutions of disputes as determinable. When a dispute was before a court

although the outcome in the case may be (and commonly is) a function of the rule laid down, the rule laid down may be (and commonly is) a function of the outcome of the case – a rule sought for, shaped and phrased for the purpose of justifying the result desired. (Llewellyn [1930] 1986, pp. 31–2)

The law was adapted to fit the desirable outcome.

The significant contribution of Legal Realism to understanding the evolution of law was the principle of indeterminacy. Indeterminacy could be found in equally legitimate but conflicting rules of interpretation which permitted different rules to emerge from any particular statute or precedent. Furthermore, conflicting precedents could be found to support the divergent outcomes desired by the litigants. Appellate decisions were the most likely to demonstrate the conflicting precedents and rules of interpretation because they were most likely to consider the difficult cases.

Indeterminacy does not make the legal process random in reaching outcomes. Where the law and its application to a dispute are clear, the outcome is likely to be predictable and, often, litigation will not be worthwhile. The dispute will be settled or avoided. “Rather, the disputes that wind up in court are disproportionately those in which two opposing parties holding mutually exclusive positions each believe that litigation is worthwhile” (Schauer 2013, p.757). These “difficult cases” are the ones which involve judicial discretion. The cases which are not difficult cases but which end up in a trial court are also the ones least likely to be appealed.

Even if indeterminacy applies only to the difficult cases which are heard by appellate courts, Legal Realism still challenges the widespread belief that law is applied in a formal manner leading to predictable and stable outcomes. It is the difficult cases which are most likely to be litigated. “If judges are free, indeed forced, to decide new cases for which there is no rule, they must at least make a new rule as they decide” (Llewellyn [1930] 1986, p.36). Thus, the decisions in the difficult cases are most likely to create new and unexpected outcomes creating new precedents and new expectations.

Without a unique outcome to resolve each dispute brought before a court, the legal system operates with some uncertainty, but is not chaotic. There is deserved skepticism about the judging process, but such skepticism must be conditioned by the observations that “legal rules nonetheless can work; that judges can abide by and apply the law; that there are practice-related, social and institutional factors that constrain judges; and

that judges can render generally predictable, legally based decisions . . .” (Tamanaha 2009, p. 732). John Dewey found a basis for reasonable predictability of judicial decisions while recognizing the need for development of new legal doctrines in times of changing conditions with his observation that

[t]here is a wide gap separating the reasonable proposition that judicial decisions should possess the maximum possible regularity, in order to enable persons in planning their conduct to foresee the legal import of their acts, and the absurd because improbable proposition that every decision should flow with formal logical necessity from antecedently known premises. (Dewey 1931, pp. 136–7)

Society cannot rely on a legal system in which the outcome of every dispute is unpredictable. Society cannot adapt to changing circumstances if the outcomes of all disputes are fully predictable based on established precedents.

Commons, while not closely associated with Legal Realism, brought the analytical jurisprudence of Legal Realism to his historical review of Supreme Court decisions. Like Veblen, he rejected natural liberty and natural law (Commons [1924] 1995, p. 2). In this regard Commons shared with Hohfeld, Hamilton and Hale the understanding that law, while enforcing transactions, also granted greater power to some parties than others. Seeing law as public policy creating opportunities for some and constraining the liberty of others, law could not be based on concepts of natural liberty. Law was not a fixed system. The development of law based upon the resolution of conflicts necessarily involved the exercise of discretion in an experimental manner by judges in the application of the prevailing law, its precedents and the facts presented by the opposing parties in each case. The opportunities and limits (rights and duties) imposed upon parties were at the core of Commons’s analysis of transactions.

Commons recognized that the judiciary exercised discretion when choosing among precedents. He understood the central role conflicts of interest had in the common law process. Most of all he formulated a concept of evolution of law as it affects economics because “the court is continually making and remaking the law by the judicial process of deciding disputes” (Commons 1932, p. 22). This evolution of law is built upon the judicial resolution of disputes between parties having conflicting interests and holding different expectations about the future. “Since it is the economic customs and precedents from which the court’s interpretations are derived, it follows that the common-law method of making law by deciding disputes is itself what we may designate an *actual* correlation of law and economics” (Commons 1932, p. 22; emphasis in

original). Those judicial resolutions reflected artificial selection among customs and precedents intended to achieve particular consequences.

Commons was influenced by the instrumentalism of John Dewey. Commons found that the means-ends continuum of Dewey, William James and Charles Sanders Peirce when applied to decisions by courts made the judicial process one which was experimental. Judges resolve conflicts brought to them by litigants and do so based upon the probable consequences of their decisions taking into consideration multiple and often conflicting precedents. Judges must decide and, according to Pragmatism and Dewey's instrumentalism, in doing so choose among alternative actions based upon their expectations about the consequences. In this view, law is not only past-regarding as suggested by Veblen, but a process that looks to future consequences, which is consistent with Pragmatism and futurity. However, Hamilton, Hale and Commons all noted that what a judge might decide to be desirable consequences will be influenced by ideology and political power as well as a sense of justice.

CO-EVOLUTION OF LAW AND ECONOMICS

Warren Samuels sets forth a paradigm for the relationship of law and economics that does not consider the superiority of one over the other nor a linear causation, but a co-determination of law and economics within the legal-economic nexus in which each is a function of the other. Furthermore, he challenges the positions that legal decisions are aimed at wealth-maximization. "To say, then, that the law is wealth maximizing is not saying anything more than that the law, in determining whose interests will count as rights, determines which non-unique optimal solution will be achieved" (Samuels 2007, p. 24). For Samuels the "legal-economic nexus is in effect a process of collective bargaining" (Samuels 2007, p. 29). In such a system belief and power have a major role.

Akin to Commons, Hamilton and Hale, Samuels sees law and economics as an "emergent process through which are worked out ongoing solutions to legal-economic problems, such as whose economic and other interests are to count, which economic and other performance results are to be pursued, and who is to make these determinations" (Samuels 2007, p. 36). Like Commons and Hale, Samuels gives a significant role to power in legal process. Samuels provides an institutionalist paradigm for the evolution of law and the economy which recognizes that the outcome of the process is indeterminate.

Samuels describes the nexus as the arena of the economy and the law where they "are jointly produced, *not* independently given and *not* merely

interacting” (Samuels 2007, p. 27; emphasis in original). An evolutionary approach to law and economics “is content with an identification and understanding of what is going on; an understanding specifically of the operative processes, mechanisms, patterns, connections, features, and properties of the interrelationship between legal and economic processes” (Samuels 2007, p. 254). The process does not settle upon an end, such as wealth-maximization.

Samuels notes specific characteristics which an evolutionary approach to law and economics should demonstrate. Among the characteristics are: (1) understanding that the law and the economy are “neither given nor independent nor self-subsistent spheres but are continuously reformed”; (2) rejection of single-factor and linear explanations; (3) understanding what interests control government and for what ends; (4) consideration of conflicts between freedom and control, continuity and change, hierarchy and equality; (5) a process “of working things out”; and (6) causal chains which are long and complex (Samuels 2007, pp. 255–7). Veblen saw the tension between the embedded principles of natural rights in the law and the matter of fact method of thinking underlying the machine process and how law could serve the ends of business (a matter of what interests control and for what purpose). Hale and Commons looked to applications of Hohfeld’s analytical model which was multi-factorial and non-linear. Veblen, Hale, Hamilton and Commons all saw conflict as a critical matter in the evolution of law and economics. For all of them the outcomes of the process were indeterminate, but reflected the relative power of parties and the role of institutions.

The co-evolution of the complex, open systems of law and the economy is not merely the adaptation to a changing environment. Although changing economic circumstances may stimulate a change in law and changes in the law may modify economic behavior, law and the economy are functions of each other. They are part of the social reality which is transmutable. In other words, social reality may be altered by human agency (Brown 2013, p. 210). The role of human agency was referred to by Commons as “artificial selection” (Commons [1924] 1995, p. 136). While some have characterized Commons’s use of the term as evidence of a non-Darwinian approach to evolutionary economics, Commons’s work accorded an important role to human agency and evolution by artificial selection as the result of the intervention of human agency in the social environment.

ARTIFICIAL SELECTION

Christopher Brown has observed that “[a]ttempts to explicate the phenomena of institutional lag and changes by use of Darwinian principles exhibit a conspicuous neglect of the problem of *power*. Power is the capacity to give effect to the will (by individuals or groups with coalescent interests) – which often means the subordination of opposing wills” (Brown 2013, p. 221; emphasis in original). Commons found the role of will in artificial selection (Commons [1924] 1995, pp. 375–6). He also recognized that power is not distributed equally (Commons [1934] 1961, pp. 710–11) and the negotiational process in transactions could produce better outcomes if power were distributed more equally or if the process for development of working rules was more participatory. This was how the public interest would be served.

When Commons applied this concept of artificial selection and the will to the legal system, he found the common law to be “the decisions of disputes according to prevailing customs, each decision operating as a precedent. Between the multitude of conflicting precedents there is opportunity for judges to select, so that the common law changes and ‘grows’ by ‘artificial selection’ looking towards future consequences . . .” (Commons [1934] 1961, pp. 239–40). Commons joined many of his contemporaries in challenging the classical school of legal thought rooted in concepts of formalism and objectivism. This challenge was based on the indeterminacy of the law and the insufficiency of formal law to explain judges’ decisions.

The common law develops through a process by which parties with conflicting interests bring their disputes to a court seeking a judicial resolution. “[T]he state transforms custom into law particularly by dealing with breaches and disputes” (Hodgson 2009, p. 155). Conflict may emerge because one party breached the working rules for a transaction and the injured party seeks redress. Conflict may emerge because circumstances unanticipated by the parties’ agreement benefit one party over the other. Conflict may emerge because of the unjustified exercise of power by one party. Conflict may emerge because new practices previously unrecognized or not previously sanctioned by the law are applied by one party and challenged by the other party. In each event the court is an agent of government authorized to resolve the conflict. Thus conflict between parties can be a driving force in the evolution of law which “involves conflict resolution, powerful institutions, and the transcendence of mere customary arrangements” (Hodgson 2009, p. 146). The common law looks to precedents to resolve the conflicts because parties may have conformed their behavior to the precedents in expectation that their behavior was

thereby authorized. However, given the principle of indeterminacy, the conflicting precedents and the conflicting principles of interpretation each party can marshal to support a party's expectations means the outcome need not be unique or fulfill a party's expectations.

In most disputes the importance of regularity of outcomes to conform to reasonable expectations will result in relatively predictable decisions. Commons argued "that to be enforceable (at least in non-totalitarian societies) laws must be widely perceived as reasonable, appropriate and fair" (Hodgson 2009, p.145). When disputes involve emerging practices not derived from antecedently known premises, the exercise of discretion by judges can change the law. In such disputes more is at stake than fulfilling the reasonable expectations of parties based upon precedents. Changing circumstances may make an emerging practice more efficacious than the practices based on precedents. Courts must select among the alternative outcomes which can be anticipated to result from a particular decision. That selection creates or confirms policies which affect not only the interests of the parties who are before the court, but also parties in subsequent conflicts.

Commons and Dewey saw in the resolution of disputes by courts the "experimental" aspect of the law. For Dewey, the process of deciding disputes involved "search and inquiry" whereas expounding the decision involved finding "justifying reasons" (Dewey 1931, p. 135). For Commons the experimental method of the common law "is a matter of reasoning from many conflicting precedents or experiences, some of which would lead to a decision towards one side of the case and others in a decision on the opposite side of the case" (Commons [1934] 1961, p.221). Commons found this experimental process to comport with Charles S. Peirce's method of fixing belief through a community of inquirers (Chasse 1986, pp.771–2). Alternative policies and their associated consequences would be tested through a sequential process of conflicts about anticipated and unanticipated consequences.

An open legal system responsible for resolving disputes arising out of changing economic circumstances in an experimental method without determinate outcomes evolves through a process of artificial selection of changing customs (Atkinson 2010, p.290). The points of change as some emerging practices are endorsed represent the legal-economic nexus where we find the co-evolution of the legal system and the economic system. These points of change involve uncertainty, valuations, futurity and expectations. They also implicate the desired consequences or purposes toward which the experimental aspect of the legal system acts. The desired outcomes may be achieved or may be frustrated as the result of the endogenous forces the decisions ignite.

UNCERTAINTY, VALUATIONS, FUTURITY AND EXPECTATIONS

The co-evolution of law and economics whereby each is a function of the other developing through an indeterminate process of dispute resolution endorsing certain practices, involves expectations about the future but expectations which are held with some degree of uncertainty. Uncertainty is a condition of decisions, reflecting the degree of reliance parties place on current practices and circumstances prevailing into the future. Parties, through their individual assessments, will place different valuations on future outcomes. These valuations may not be realized when economic circumstances change or new practices are applied. In such events conflicts arise and disputes come before courts.

Courts resolve conflicts arising under conditions of changing economic circumstances through the experimental process of decision-making after considering the potential consequences of the decisions and the rules which are created thereby. When working rules change, the expectations of parties engaged in negotiating transactions also change. In John R. Commons's theory of transactions, law permeates his analysis. Parties enter into transactions because they have security of expectations regarding the enforcement of the working rules (the reciprocal and correlative powers and duties of the parties) by the legal process. Security of expectations means practices known to the parties are expected to be repeated in the future.

"[T]he economic system as a going concern is dominated by expectations of the future, since the purpose of customary behavior is to give some guaranty to the individual concerning future conditions" (Chasse 1986, p. 833). Although customs are generally backward-looking and are expected to persist, Commons observed that "customs changed in the past and they are changing in the present" (Commons [1934] 1961, p. 239). So even though generally backward-looking, customs (practices) change as the circumstances change. Although the changes may come slowly, as with the changing definition of property, their effect is prospective. When customs change, expectations become less secure. When expectations are less secure or parties have different expectations, conflicts of interest arise and, given the indeterminacy of courts' decisions, outcomes are uncertain.

"In a world of uncertainty, which is the world of economic reality, expectations are not fixed. In fact, they are inherently unstable" (Atkinson and Whalen 2011, p. 68). Recognition of the significance of uncertainty in economic decisions was one of John Maynard Keynes's major contributions to economics. The decisions people make about the future "whether personal or political or economic, cannot depend on strict mathematical

calculations, since the basis for making such calculations does not exist . . . ” (Keynes [1936] 1964, pp. 162–3). Nevertheless, behavior is

guided to a considerable degree by the facts about which we feel somewhat confident, even though they may be less decisively relevant to the issues than other facts about which our knowledge is vague and scanty. For this reason the facts of the existing situation enter, in a sense disproportionately, into the formation of our long-term expectations . . . (Keynes [1936] 1964, p. 148)

The less confident parties are about the persistence of the present customs and practices, the greater are the prospects of conflicts. Greater uncertainty about the future breeds divergent expectations among the parties and divergent expectations lead to actions which are more likely to come into conflict.

The integration of expectations with actions directed toward the future and the anticipated consequences of those actions is Commons’s principle of futurity (Commons [1934] 1961, p. 738). Futurity acknowledges that action is taken under conditions of uncertain information about the future. However, it is the condition of people to act and action is purposeful (Parsons 1942, p. 250). “Futurity also underscores both the importance of ‘purpose’ in economic life and the difference between ‘action’ and ‘choice.’ Because valuation always looks to the future, purpose drives action” (Atkinson and Whalen 2011, p. 70). The connection between expectations and purposeful action is valuation. Valuations will always involve the interests of parties and resolution of conflicts, whether by one party succumbing to the power of another or by a court choosing which valuation will prevail, and will reflect whose interests count. “Whenever there is a conflict of interest, to speak of global efficiency is to make a value judgment weighting the interests of one party over another” (Schmid 1987, p. 252).

All activities have present values “not on account of what has happened in the past, nor even on account of what is happening at the present point of time, but on account of what I and others hope, expect, or fear will happen in the future” (Commons 1925, p. 2). Valuation is the measure of the anticipated consequences in the future of action taken in the present. A party does not attach present value to future activity independently from what others anticipate about the future. The valuation which any particular party attaches to a future activity is a function of what that individual believes a community or collective will affirm is the valuation of such future activity and what that party is willing to pay for such future activity.

Futurity is a process in which the individual making an economic decision about the future is influenced by (i) his or her expectations about the future, (ii) the confidence he or she has in the persistence of existing

customs or practices in the future, and (iii) the valuation attributed to the activity (the anticipated consequences). Futurity balances the need for regularity and security against the quantifiable risks and non-quantifiable uncertainties about a future subject to change so that parties may enter into transactions. The mutual dependence between parties upon the performance of the parties to a transaction relies on a consensus about the future. Drawing on John Dewey's instrumentalism, Commons understood action to be a condition of humans. All action is purposeful and directed toward anticipated consequences. "Whereas the principles of customary working rules and sovereignty deal with the factors that give order and stability to the economic system, the principle of futurity is concerned with the ends of concerted economic action" (Chasse 1986, p. 837). The ends of economic action relate to the consequences people expect action will produce and the feedback which they receive from taking action. Because valuations are uncertain, concerted economic action has both intended and unintended consequences.

Uncertainty about the future is a source of differing and conflicting expectations about the anticipated consequences from present action. In describing the transaction, Commons observed that "the ultimate unit of activity, which correlates law, economics, and ethics, must contain in itself the three principles of *conflict*, *dependence*, and *order*" (Commons [1934] 1961, p. 58; emphasis in original). Conflict arose from the claims of one party against another (Commons [1934] 1961, p. 57). Dependence exists because the relation between parties is one of interdependence as each relies on the other to fulfill the terms of the transaction (Commons [1934] 1961, p. 57). Order

is derived from the fact that the future is wholly uncertain except as based upon reliable inferences drawn from experiences of the past; and also from the fact that it may properly be said that man lives in the future but acts in the present. (Commons [1934] 1961, pp. 57–8)

Parties to a transaction are likely to bring different expectations to the negotiation process because parties have different levels of confidence about the persistence of existing customs or practices. An innovator is likely to have a significantly lower degree of confidence in the existing state because he or she hopes to introduce changes in customs and practices. A party committed to established practices may have an unreasonable confidence that existing practices will prevail into the foreseeable future. Their conflicts of interest may be resolved as they negotiate a transaction because their dependence (or mutuality) provides the basis for an orderly result. Failure to address the expected outcomes during the negotiation

phase will lead to disputes when expectations diverge after the terms of the transaction are agreed upon.

“A flow of time, in the physical sciences, is a succession of events. But, in economics, which is a science of human expectations, a ‘flow of time’ is an *expected* succession of events” (Commons [1934] 1961, p. 407; emphasis in original). When the expected succession of events is interrupted by changing circumstances then expectations about the future cannot depend upon what has been customary behavior. The determination to rely on custom or to bet against it is a fact-dependent decision.

[T]he amount and kind of antecedent assurance which is actually attainable is a matter of fact, not of form. It is large wherever social conditions are pretty uniform and when industry, commerce, transportation, etc., moves in the channels of old customs. It is much less wherever invention is active and when new devices in business and communication bring about new forms of human relationship. (Dewey 1931, 137–8)

An understanding of the co-evolution of law and the economic system must incorporate conflict resolution, uncertainty, valuations, futurity, expectations and the experimentalism of the law.

While parties in transactions have conflicting interests, negotiations occur within the context of working rules which operate to resolve the conflicts (Commons [1934] 1961, pp. 73–4). The cooperation necessary for parties to reach agreement in transactions “arises from the necessity of *creating a new harmony* of interests” (Commons [1934] 1961, p. 6; emphasis in original). Achieving this harmony of interests is a matter of negotiational psychology. Negotiational psychology is a “give-and-take process of conciliation and agreement” (Commons 1950, p. 29). Conciliation and agreement function within the context of working rules and expectations of enforcement of the working rules by courts because parties learn about the levels of confidence each other has about the persistence of existing practices.

The term Transaction itself implies mutuality. Each party does something for the other. Neither may be fully satisfied. Usually neither is. Yet a transaction is a ‘meeting of wills,’ and mutuality is not the same as equality or justice. It is reciprocity, indeed, because it is a degree of dependence on each other. But it may be very unequal or unjust if the parties are not equal . . . (Commons [1934] 1961, pp. 710–11)

While working rules need not serve to redistribute power, Commons advocated for a collective action which is the result of processes directed toward greater participation to foster more equal power and more just transactions. “It is indeed a civilized accomplishment of the highest order

for a society to change rights and maintain willing participation” (Schmid 1987, p. 33).

Transactions grow out of conflicts of interest as a means to resolve the conflicts through negotiations leading to enforceable expectations, enforced by the working rules.

The working rule is not a foreordained harmony of interests as assumed in the hypothesis of divine or natural rights, or mechanical equilibrium of classical and hedonic schools, but it creates, out of conflict of interests a workable mutuality and orderly expectation of property and liberty. Thus conflict, dependence and order become the institutional economics, builded upon the principles of scarcity, efficiency, futurity, working rules, and strategic factors; but correlated under the modern notions of collective action controlling, liberating, and expanding individual action. (Commons [1934] 1961, p. 92)

By means of legislation and court decisions collective action takes over “the customs of business or labor, and enforces or restrains individual action, wherever it seems to the [US Supreme] Court favorable or unfavorable to the public interest and private rights” (Commons [1934] 1961, p. 5). As such, collective action reflects the relative importance of public interests and private rights. The working rules which emerge from a legislative or judicial process may reflect the public interest or may ratify existing unequal distributions of power.

Futurity and expectations are forward-looking and for economic purposes involve valuations about future outcomes. Commons explained the valuation process as “a present right to a future use or sale of the materials immediately as well as in the remote future. The materials, as mere physical existences, are always in the past. They have, in themselves, no futurity. But ownership and valuation of those materials always look to the future” (Commons [1934] 1961, p. 406). Also “it is always *future* production and *future* consumption that are at stake, because the negotiations determine the legal control which must precede physical control” (Commons [1934] 1961, p. 7; emphasis in original). Economic decisions are directed toward future consequences based upon the working rules which parties expect will be enforced. As those working rules change, the anticipated consequences of economic decisions must be adjusted.

The role of valuations involves more than simply the present value of future activity applying some established “discount” measure to reduce the value anticipated in the future to present worth. Discounting is only part of the process for reaching a valuation. Discounting adjusts for the time value of money by comparing the payoff from the particular use of money with alternative uses. Valuation also involves a projection of the future stream of income produced by the transaction. That projec-

tion is the result of experience, judgment and guesses. Just as futurity is affected by the level of confidence in the persistence of present practices or customs, valuation is affected by the prospect that the future activity will achieve the anticipated consequences.

Although Commons' analysis of social valuation has been centered on judicial decisions, the theory has wider import. Inferentially, at least, Commons suggests that any theory of social valuation must be based upon principles for deciding disputes and resolving conflicts. This seems to follow necessarily from the conception of the social process as containing conflicts, dependence and order. The problem of social valuation is to achieve a common valuation so that order and mutuality can be achieved. (Parsons 1942, pp. 259–60)

Thus, valuation is not simply a calculation of the proceeds of future activity. It is dependent upon the likelihood that the future activity will yield the desired results which may be measured in financial terms, but may involve other measures as well.

PROCESS AND EXPLANATION

The legal–economic nexus is the conjunction of two evolving processes: (i) the process by which the legal system establishes and changes the working rules which affect parties' expectations and (ii) the process by which valuations change and the ends of concerted economic action adapt. Both are ongoing processes which are interdependent and functions of each other. Wendell Gordon referred to the problem of understanding ongoing processes when he stated that “the starting point is realizing there is no starting point; there is no starting point in the sense of initial conditions knowable to us. We are already involved in process with no clear idea as to how the process began” (Gordon 1992, p. 891). We cannot explain how the process began; however, we can explain how the processes affect each other, how changing economic circumstances affect the law, how law affects valuations, how valuations result in concerted economic action and how the outcomes of economic action may create new conflicts requiring legal resolution. This is accomplished through the historical analysis of cases, such as Commons conducted, placed in the context of the specific economic circumstances of the time the decisions were reached.

Institutional economics emphasizes the problem-solving approach through empirical examination (Rutherford 2011, p. 131). John R. Commons, Richard T. Ely and their colleagues explained institutional processes using a case-by-case investigation method including an “immersion in the current laws and customs organizing the process under

investigation . . .” (Field 1979, p. 50). The purpose of such investigation was to explain the phenomena under investigation for the purpose of improving the process and understanding what policies might improve the outcomes. The method of institutional economics as applied to the co-evolution of law and economics means that we seek to explain how the processes of these two systems affect each other through the examination of empirical, historical information.

Explanation “necessarily involves the assertion of a causal relationship” (Field 1979, p. 51). While we cannot identify the beginning point of the co-evolution of law and economics, and, therefore, cannot assert a primary cause for such co-evolution, we can examine how under changing economic circumstances certain emerging economic practices were selected by the legal process and subsequent economic action was adapted to the new working rules. Such an examination will explain how the legal system responded to the challenges posed by new economic circumstances and how the response through feedback created new expectations, changed economic behavior and could ignite endogenous forces.

J. Fagg Foster referred to such co-evolution as “institutional adjustment.”

The most sensibly changing aspect of man’s environment is the direct result of his own innovations in the technological sphere. These changes sometimes initiate a problematic situation in the economic process and thereby problems in other aspects of the social process. Man cannot unknow what he has just learned. He therefore cannot escape the compulsions imposed upon him by what he has learned except by further adjustment of the other aspects of his environment. In cases in which the disrapport exists between physical innovation and other aspects of technology, the problem remains a physical engineering one. But if the disrapport arises between a technological innovation and the institutional structure through which the technology is made use of, then the problem becomes a social one. Therefore, in the latter case, the answer to the problem necessarily takes the form of institutional adjustment. All answers to all economic problems, then, must take the form of institutional adjustment. (Foster 1981, pp. 940–41)

Institutional adjustment as it occurs through the co-evolution of law and economics means that new practices (a form of technology) are tested in the experimental system of the courts and are endorsed or fail. When they are endorsed working rules change. The valuations (anticipated consequences of economic action) take the new working rules into consideration for enforcement of expectations regarding such action. The actions taken also may have unintended consequences (endogenous forces) which give rise to new conflicts.

The new conflicts arising from unintended consequences are tested

further and the experimental process of the common law may lead to additional adjustments. This experimental process may move in leaps or sequential adjustments. The justification of a decision involves a “focus backwards on precedent and origins” (Samuels 2007, p. 262). Thus, even though the court’s decision is forward-looking in its consideration of the potential consequences of changing the working rules, judges support the decision about the future by reference back to the past. This backward-looking justification even of significant changes in the working rules means that in most instances the change fostered by a court’s decision is incremental. As John Dewey observed, “[c]ourts not only reach decisions; they expound them, and the exposition must state justifying reasons. The mental operations therein involved are somewhat different from those involved in arriving at a conclusion. The logic of exposition is different from that of search and inquiry” (Dewey 1931, p. 135). Foster referred to such situations when he noted that institutional adjustments or “institutional modifications must be capable of being incorporated into the remainder of the institutional structure. It is convenient to call this the principle of minimal dislocation” (Foster 1981, pp. 933–4). The backward-looking aspect both of customs and of the law’s reliance on *stare decisis* as a guiding principle mean that in most situations institutional adjustments involve minimal dislocation. John R. Commons reported this as he examined the slow transition of the US Supreme Court from recognizing property as only tangible property to property being tangible, incorporeal and intangible. He also reported on the transition over many years from the corporation as a “franchise-to-be” to the corporation as a “franchise-to-do.” The ultimate difference between the beginning points and the new positions regarding property and the corporation were significant and yet the change occurred gradually and meant minimal dislocation along the path of change.

HISTORICAL ANALYSIS OF CO-EVOLUTION OF LAW AND ECONOMICS

In *The Legal Foundations of Capitalism* John R. Commons charted the process by which the Supreme Court examined the legal definition of property and ultimately changed it. He also described how the corporate form for doing business migrated from the “franchise-to-be” to the going concern with a “franchise-to-do.” Commons’s analytical framework proceeded from his empirical process of historical case review. His examination of the decisions of the Supreme Court as the final arbiter of the working rules governing transactions provides a systematic analysis of the

course of the development of law around the concepts of property and of the corporation.

Commons observed the challenges raised in the last three decades of the nineteenth century against the traditional understanding of property as being only physical property. In 1872 the Supreme Court considered the claims of butchers in New Orleans that their ability to earn a living was impaired by a monopoly granted by the city to the operation of a single slaughterhouse where all butchers must conduct their work. The *Slaughter-House Cases*, 83 U.S. 36 (1872) held that the restraint imposed on the exercise of trade by butchers was not a deprivation of property because it did not involve the deprivation of physical property under the Fourteenth Amendment to the US Constitution. The minority in a dissent written by Justice Stephen Field argued that the restraints placed on the exercise of the work of butchers was a deprivation of property. In the 1876 case of *Munn v. Illinois*, 94 U.S. 113 (1876) the Supreme Court found that regulation of the grain elevator business by the Illinois legislature was not a deprivation of property because it did not affect physical property. Again in dissent, Justice Stephen Field found the regulation to be a deprivation of property because property includes the fruits of its use.

With the passage of time, the dissents of Justice Field regarding protection of intangible property gained sway over the Supreme Court's understanding of property. In the Minnesota Rate Case in 1890 (*Chicago, Milwaukee & St. Paul Ry. Co. v. Minnesota*, 134 U.S. 418 (1890)) the Railroad and Warehouse Commission created by Minnesota statute to set "equal and reasonable" rates on railroads operating within the state, reduced the rates on the plaintiff railway which complained that the rates set by the Commission constituted a deprivation of property without due process under the Fourteenth Amendment. The Supreme Court found that the state regulation under these circumstances lacked due process and the setting of lower rates was a deprivation of property. Likewise, in 1897 in an opinion authored by Justice Field's nephew, Justice Brewer, the Supreme Court found in *Adams Express Company v. Ohio State Auditor*, 166 U.S. 185 (1897) that the challenge to the tax imposed by Ohio on the proportion of the intangible value of Adams Express Company related to its activity in Ohio on the grounds that such a tax went beyond the physical property of the Company was dismissed because the tax was not a deprivation of property without due process of law. Taxes need not be imposed only on tangible assets of the company but could be imposed upon the business's intangible assets. This recognition of intangible property was also adopted by the Supreme Court in *Smyth v. Ames*, 169 U.S. 466 (1898) where the Supreme Court determined that the rates charged by railroads were property and protected against deprivation without

due process of law. Thus, over these three decades the Supreme Court's decisions changed the legal definition of property to include intangible property as well as physical property. This changed definition of property would have significant effects on the Supreme Court's later decisions on the powers of the states to regulate business.

The decisions in the Minnesota Rate Case, *Adams Express* and *Smyth* while relating primarily to the changing legal definition of property also involved the intersection of state power over commerce with the federal power when the business being regulated or taxed was clearly engaged in transportation across state lines which implicated the federal power over commerce. In each case the Supreme Court, while limiting the manner in which a state could exercise its authority over intangible property in order to conform with the requirements for due process, recognized the authority of the state to regulate or tax activity which occurred within the state's boundaries, such as in *Adams Express* where the state of Ohio could tax the intangible property of the company that was proportionate to the company's activity in Ohio. Although the intersection of the federal power and the state power over commerce was not of primary concern in Commons's analysis, he recognized the importance of the Commerce Clause (US Const. art I, §8) to the development of a national market with going concerns valued by their expected future stream of income.

Commons observed the changes in the law regarding the corporation as a process which had evolved from the corporation as a distinct entity with powers granted by law to an entity organized under general incorporation laws with broad powers to act. He found that the legal status of the corporation had evolved from the exclusive grant of a "franchise-to-be," which was the corporation as the creation of the state under special legislation, to the grant of a "franchise-to-do," which was the corporation as the creation of its incorporators under general incorporation laws (Commons [1924] 1995, p. 176). The grant of powers to corporations expanded and changed the role of corporations in an economy experiencing an expanding national market.

It was in this context of the changing character of the corporation that Commons identified another important change in the law relating to corporations. In *Van Allen v. The Assessors*, 70 U.S. 573 (1865) the Supreme Court determined that the ownership of the assets of the corporation was vested in the entity and was distinct from the interest of the shareholders in their proportionate share of the net profits of the corporation. In his analysis of *Van Allen* Commons noted that this distinction between the ownership of property rights in corporations marked the legal recognition of the corporation as a going concern (a collective entity) owning a going business (Commons [1924] 1995, p. 174).

CONCLUSION

The co-evolution of the open systems of the law and the economy through a process of experimentalism and artificial selection applied by courts to resolve conflicts over practices and valuations of future outcomes is demonstrated by an historical analysis of court decisions in the context of changing economic circumstances and uncertainty. Employing the historical case analysis method of John R. Commons, we will describe how the widening of markets produced conflicts requiring changes in the law and affected the working rules governing economic decisions. Through a process of artificial selection among precedents and potential outcomes of decisions, the legal system endorsed certain emerging business practices. These decisions set new working rules, changed the expectations of parties to transactions, created new conflicts and ignited endogenous forces.