

COMPETENCE AS A RANDOM VARIABLE ONE MORE TRIBUTE TO RONALD COASE

By
Richard A. Epstein*

ABSTRACT

The work of Ronald Coase is notable for how it introduces the notion of transactions costs to explain both the creation and maintenance of firms and for understanding the larger question of social costs. Nonetheless, it seems improbable that positive transaction costs are the only explanation as to why and how firms are organized. A richer account of the problem properly stresses that differences in individual levels of competence, as well as individual variations on matters of temperament and taste, which help to explain why, for example, some firms are organized as partnerships and others as straight employment arrangements, with many permutations in between. The stress on differential levels of competence also helps to improve the understanding not only in related areas such as employment discrimination law, but also in more distant areas such as capital markets and tort liability.

In his December 9, 1991 Nobel Memorial Lecture, *The Institutional Structure of Production*,¹ Ronald H. Coase outlined the formative events that led him to write first his 1937 Article, *The Nature of the Firm*,² and thereafter his 1960 article, *The Problem of Social Cost*.³ In the first of these articles, Coase asks the disarmingly simple question of why, if the price system is so efficient in organizing the relationship between parties, we have any need for firms at all. His answer was, and emphatically is, that the usual expositions of the market start with the false

* James Parker Hall Distinguished Service Professor of Law, The University of Chicago; the Peter and Kirsten Bedford Senior Fellow, The Hoover Institution; visiting professor, New York University Law School. This article is prepared for the Conference, *Markets, Firms and Property Rights: A Celebration of the Research of Ronald Coase*, The University of Chicago Law School, December 4 & 5 (2009). Preliminary Draft.

¹ Ronald H. Coase, *The Institutional Structure of Production*, 82 *Amer. Econ. Rev.* 713 (1992).

² Ronald H. Coase, *The Nature of the Firm*, 4 *Economica* 386 (1937).

³ Ronald H. Coase, *The Problem of Social Cost*, 3 *J. LAW & ECON.* 1 (1960).

assumption that transactions costs are zero in competitive markets. Once the positive costs of exchange are factored into the equation, the difficulties of organizing voluntary exchanges of goods and services in a spot market become evident. At that point, individuals ask whether the coordination of efforts through the mechanism of a firm is a more efficient way to organize the means of production than spot transactions. Where it is firms will survive in a competitive market. Where it is not, the firm will lose out as other forms of organization will dominate. Any complete analysis therefore requires a close comparison the costs of the two (or more) different modes of organization in order to explain the emergence, persistence and destruction of firms.

In *The problem of Social Cost* Coase asked the question of whether the system of Pigovian taxes would be necessary to control pollution externalities in a world of zero transaction costs. His surprising answer—which had to overcome much early if short-lived resistance—⁴ is that externalities as such would never survive in that setting. In all cases, business actors could correct for the supposed externality, by entering into a series of voluntary exchanges irrespective of the original assignment of the right to pollute or be free of pollution. The actual disposition of rights, and the number of affected parties would not matter because an infinite number of transactions could correct all initial imbalances in an infinitesimal length of time.

All the action therefore arises in a world with positive transaction costs, where the key challenge of institutional design is to figure out assignments of initial property rights that have two desirable characteristics. The first of these is to have a clear delineation of rights that permits the efficient use of various resources. The second is to be sure that this distribution also allows for the transference of property rights so as to facilitate cooperation and exchange. The common law rules on property rights that give the owner of each asset the exclusive right to possess,

⁴ “In the course of two hours of argument the vote went from twenty against and one for Coase to twenty-one for Coase.” George J. Stigler, *Memories of an Unregulated Economist*, 76 (1988).

use and dispose of a given thing, go a long way to achieve that answer. Those rules dovetail neatly into the Coasean world view which then leads to the conclusion, which has both normative and positive implications: if you can minimize the transactions costs, you can maximize social welfare—although Coase has long been reluctant to push his fundamental insights in such a general form.

It is instructive to note some of the notions that are omitted in this brief exposition the Coasean world view. Coase understands that self-interest is often a guiding force in commercial exchanges, but he does not militantly insist that self-interest necessarily eliminates all other forms of human motivation. He tends to regard that strategic behavior among honorable traders is less of a peril than other commentators have suggested, which is evident in his long debate with Benjamin Klein over General Motor's acquisition of the Fisher Body Company in the mid-1920s.⁵ Nor does Coase insist that all individuals are unerringly able to maximize their individual welfare by choosing the means that are appropriate for the achievement of their ends. These elements are surely a part of the Coasean world view, but they do not dominate it. He would never say that individuals are not capable of generous impulses or charitable actions. On that regard Coase's views of human nature owe as much to the Adam Smith of *A Theory of Moral Sentiments* as they do to the Adam Smith of *The Wealth of Nations*.

When Coase gave, of all things, the Coase Lecture at the University of Chicago in 2003,⁶ he recapitulated many of the points contained in his Nobel Prize Lecture a dozen years before. At its closing, he was challenged by a student who wanted to know whether his view of human nature aligned him with the behavioral

⁵ See Ronald H. Coase, *The Acquisition of Fisher Body by General Motors*, 43 J. L. & ECON. 15 (2000); Ronald H. Coase, *The Conduct of Economics: the Example of Fisher Body and General Motors*, J. ECON. & MGT. 255 (2006). For the alternative account, see Benjamin Klein, Robert G. Crawford, & Armen A. Alchian, *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 231 J. LAW & ECON. 297 (1978); Benjamin Klein, *Vertical Integration as Organizational Ownership: the Fisher Body-General Motors Relationship Revisited*, THE NATURE OF THE FIRM: ORIGINS, EVOLUTION, AND DEVELOPMENT (O. Williamson & S. Winter (eds) (1991))

⁶ Ronald H. Coase, *The Present and Future of Law and Economics*, <http://www.law.uchicago.edu/node/1291>

economics, with its strong emphasis on the cognitive barriers to rational choice behavior, based on such notions as the availability heuristic or the tendency toward anchoring—which it should be noted actually cut in opposite directions. Coase's answer was that he had no such specific and unalterable deficits about human beings in mind. Rather, it was his view that most people are highly imperfect beings who try to do the right thing most of the time, but nonetheless often fail. Given their condition the purpose of the sound legal framework, especially one with clearly defined property rights, is to make it a little easier for them to navigate a little bit better through the shoals, so that over time the small gains in individual would coalesce into more substantial social gains. On this matter he is closer to his own colleague/teacher Friedrich Hayek with whom he overlapped at the London School of Economics. The perfectibility of Milton Friedman is not part of his lexicon. He disdains therefore any grand view that celebrated the inability of individuals to make rational choices just as he disdains any view which insisted that individuals always make such choices, come hell or high water.

In dealing with these issues, one way to appreciate the Coasean approach is to note that he does not conceive of the firm as a black box that operates mysteriously in a marketplace. Rather it is a complex set of institutional arrangements that allowed individuals to coordinate their activities in what Oliver Williamson, one of Coase's most prominent disciples, now calls a hierarchical fashion.⁷ One clear implication of his work is that it is dangerous to model competition as any state of affairs in which in equilibrium all firms used the same kind of production function to produce goods at the same price. To be sure, the conventional analysis takes into account that different firms could have identical assets that were acquired at different prices, so that we could predict which firm is likely to close down first if demand for good shrunk. But the larger truth is that in many markets firms that produce the same finished goods use radically different methods to get to that approach. Some start high tech and others start low tech and

⁷ Oliver Williamson, Markets and Hierarchies: Some Elementary Considerations, 63 Amer. Econ. Rev. 316 (1973)

then use high tech only when they discover the gaps in their business. Countless other variations matter as well. Indeed it is only when one realizes how heavily transactions costs matter is it possible to see why the key issues of *management* all begin where the black box model of the firm leaves off. There is little question that Coase's one simple insight necessarily reshapes the nature of the investigation of market institutions.

THE NATURAL VARIATION AMONG HUMAN BEINGS There is, however, at least one critical assumption of economic theory that Coase did not take into account in his analysis that strikes me as important for understanding the way in which both firms and individuals operate within a marketplace. That fact is the differences among individuals on matters of competence and taste—which for these purposes I lump together under the heading of “competence”—that they bring to any market setting, and which continue to influence their behavior as they participate in various types of business transactions either as lone actors or firm members. To put the point the other way, much of the diversity that Coase and others have observed in the operation of firms is best understood as being attributable to the differences in the abilities of individuals among individuals that participate in market setting. The initial distribution of talents on all sorts of dimensions offers an explanation as to why the level of specialization within firms and industries is so great. The parties are not identical in a wide range of relevant characteristics, so that the gains to trade from specialization are likely to prove larger and more enduring than they would be if the only explanation for the differentiation in occupational roles is based on the relative transaction costs of spot transactions and long-term relational contracts.

Another way to put this point is to note yet another area in which Coase appeared to have little professional interest, which is the role that human biology has in shaping the psychology of individuals who eventually engage not only in market transactions, but in charitable work, marriage, and a whole host of personal relationships like memberships in clubs and organizations. The usual postulate in economics, which is usually assumed but not articulated, is that competence is fixed and constant across individuals.

This point of view, moreover, holds even for those who do not think that all individuals are always rational actors. Thus the extensive and instructive literature on “bounded rationality” “refers to the rate and storage limits on the capacity of individuals to receive, store, retrieve, and process information without error.”⁸ Neither this particular quotation nor the surrounding passages give much clue as to whether these limitations are constant across individuals, or the implications that flow once we recognize the obvious points that these limits can differ by orders of magnitude across different individuals. Similarly, too much of the literature in behavioral economics talks with the same level of generality in listing the various intellectual infirmities that impede rational choices by persons. But once again the key point is that any recognition of these multiple cognitive problems does not carry with it any inference that all individuals suffer from the same impairments, or, if they do, to the same degree. Some persons could be naturally more astute, perhaps because of their greater facility with mathematics, or an ample dose of horse sense. In other cases competence levels could vary with age and experience. Thus in an instructive study, Sumit Agarwal, John Driscoll, Xavier Gabaix and David Laibson⁹ investigate the relationship between age and competence in financial markets and find variations that appeal to common sense but which fit only with difficulty into strong neoclassical formulations. Their head note says it all: “The sophistication of financial decisions varies with age: middle-aged individuals borrow at lower interest-rates and pay fewer fees compared to both younger and older adults.” Fifty-three turns out to be the general peak. If all this is true one can see why financial responsibility varies with age. And further work could of course seek to accept the notion of variability but find different patterns for different subgroups. Thus financial traders with huge demands on their time may well turn out to be a lot younger, given the level of stress and the need for facility with higher level mathematical models. What matters for the general analysis is not the particular

⁸ Id. at 317.

⁹ Sumit Agarwal, et al, *The Age of Reason: Financial Decisions Over the Lifecycle*, MIT Working Paper series, Working Paper 07-11, March 15, 2007 [hereinafter *Age of Reason*].

relation between age and competence, but the explicit awareness that this topic really matters.

The same observation can be made about the self-interest component of rational choice theory. It may well be that all individuals do not act solely in accordance with these motivations. But there is nothing to say that all individuals are equally generous or equally selfish. The same assumption that these traits vary, perhaps in a normal distribution is again a key element in the overall description of human beings.

I think that any level of variation on these three dimensions—calculation, bias, generosity—are important because they tell us much about how individuals sort themselves out in both the firm and the market place. The different roles that people choose are not solely left to matters of socialization and opportunity, such as that afforded by a good education. To my mind, it is foolish in the extreme to deny the force of any of these social elements. Yet by the same time, it would be equally foolish to assume that these social factors are the sole source of human differences in a wide range of social settings. Rather, I think that it is appropriate for us to take our cue from evolution where natural variation within a population with respect to any trait is regarded a norm to which there are in practice really no exceptions at all.

Thus if one looks at any large population there is always some kind of distribution (which may or may not be captured in a normal distribution) over the full range of traits. These include the obvious ones that go to height and weight, which themselves will vary in predictable fashion with age, but also to matters of intellect and temperament. These elements may be harder to measure and classify, but which are always relevant and are frequently judged, and judged accurately by standardized psychological tests, including the Myers-Briggs test,¹⁰ which are intended to ask the degree to which different persons are extroverts/introverts, and the like with an eye to matching the personality type with those occupations that a person is likely to succeed at. These tests of course assume that some degree of

¹⁰ For those keen on taking the test, see <http://www.humanmetrics.com/cgi-win/JTypes2.asp>.

market specialization is likely to follow from the differences in 16 overlapping personality types. And the same of course can be said with the overall level of competence in the sense of either general (Spearman g) intelligence, or particular aptitudes for certain kinds of task, so that some persons are better verbally and others quantitatively and the like. It also covers the ability to tackle various means-ends relationships, such matters as the willingness and comfort level with risk and uncertainty as part of one's life.

It is critical, therefore, to take these various traits and to show briefly as to how they offer an additional tool to explain not only the division of labor the marketplace between firms and exchanges, but to indicate why these differences in personality types along these various dimension help to explain which individuals will take what kind of roles and why. The point of this little mental exercise is not to falsify any fundamental economic proposition the celebrates the gains from trade. Nor is it to offer a frontal challenge to either of Coase's great papers. Rather it is to identify the additional gains from trade that are achievable pretty much across the board precisely because individuals start with native differences in all these variables that could easily be magnified as they move through life. Quite simply, just as people with different skills stand to gain more from trade than those whose skill sets are the same, so too individuals with different temperaments and abilities are likely to gain more through trade than persons who have no such differences to exploit.

SPECIALIZATION WITHIN FIRMS In order to see how this analysis works, let me start with the simplest question about the organization that takes place within a two-person firm. The Coasean insight seeks to explain why some firms persist, but it offers relatively little insight into the details of its internal structure, which is a topic that concerns any lawyer whose job is to help, in the simplest case, two individuals form a common venture. For the moment stick with the simplest choice that the two individuals have to make, which is whether to form a partnership or an employment relationship. Both of these devices share in common the feature that two individuals will combine their labor in a long term relationship that is in practice decidedly different from spot contracts that take place in sales markets.

The point is disputed by Alchian and Demsetz who reject the view that employers have special power or authority over their employees that goes above and beyond that found in what they term “the conventional market.”¹¹ Thus the employer “can fire or sue, just as I can fire my grocer by stopping purchases from him or sue him for delivering faulty goods. . . . To speak of managing, directing, or assigning workers to various tasks is a deceptive way of noting that the employer continually is involved in renegotiation of contracts on terms that must be acceptable to both parties.”

I think that this hyperrealist assessment is correct insofar as it notes that the threat to quit or fire in an employment relationship means that parties do make constant readjustments within the framework of an overall contract.¹² But the [point is still not right because on their view there would be no reason to worry about the classification of a contract as one of sale versus employment, and even less to worry about the relationship as one between two partners instead of one between an employee. It is very clear from the legal point of view that it is not accurate to describe switching your goods and services as “firing” the grocer. The transactions are discrete. And the smart grocer that has established a price scale is quite happy for the customer who switches from one good to another. But it is almost never the case that people negotiate prices on a check out line.

In contrast, firing an employee results in the disruption of a long-term relationship in which the background expectation is that the employer gives orders that the employee, as part of the antecedent agreement between the parties obeys. Quitting and being fired for insubordination is a difference that matters even if it turns out that no law suit is filed in either case. And for our purposes, the Alchian and Demsetz realist account cannot explain why from the stock of standard legal relationships two people sometimes choose the partner relationship and sometimes

¹¹ See Armen A. Alchian & Harold Demsetz, Production, Information Costs and Economic Organization, 62 Am. Econ. Rev. 777, 777 (1972)

¹² See, Richard A. Epstein, In Defense of the Contract at Will, 51 U. Chi. L. Rev. 947 (1984).

choose the employee relationship. The partnerships may well be dissolved at will, but the two parties do not go their separate way as do the customer and the grocer. They have assets that are jointly owned and managed, and the question of how to either sell the assets for cash or to divide them between the parties requires a good deal of thought, which is heavily influenced by the transaction costs involved in the alternative forms of separation

Answering the question firm structure therefore is more difficult than appears because all partnerships are not built alike. From Roman times on forward the background norm with respect to a two-party partnership is that the partners will share and share alike on both benefits and losses, unless there is some different allocation of either capital or control rights within the firm, which in turn would govern.¹³ But if we stick to the simplest pro rata partnership relative to the simplest employment relationships the rules are different. The partnerships decide by agreement. The employer gives orders to the employee, which are normally accepted and executed. In the partnership the gains are divided equally between the parties. In the employment relationship the employee gets the wages, and only thereafter does the employer receive net profits from the firm. To use the language of capital structures, the employer holds an equity position in the firm, while the employee is in the position of an unsecured creditor.

We thus have profound differences in the payout and control functions, which in fact move hand in hand. The greater control over the business leaves the employer to manage risk and to assume the position of the residual claimant in the business. It is as though the employee is in the position of the holder of a lien and

¹³ See Gaius, Institutes, III, 149, noting that using asymmetrical allocations of gains and losses are not “against the nature of a partnership,” conceived of in Aristotelian terms. Gaius then goes on to discuss other splits in the contribution of capital and labor in the firm, and notes that the labor of one partner could be so great that no capital contribution is required. Note, however, that the moment the parties depart from the standard pro rata form, the costs of governance are higher. Ironically, these special arrangements are far easier in small businesses than in large firms which tend to have a single class of stock in part to encourage trading on public exchanges.

the employer is the holder of the equity. The former gets the higher priority and the latter gets the greater reward for taking the additional risk. There is no doubt of course that the Alchian/Demsetz model is correct to state that the synergistic effects of team production lead people to form firms in the first place. But that explanation does not explain which form of team production is preferable and why. We need an explanation for the choice of formation to nail down the two-party case, and to set the framework that talks about the more complex assignments of risk and reward that exist in larger organizations where this simple dichotomy does not apply.

So why then do we have some two-person businesses form as partnerships and others as employment relationships? The answer cannot be the division of labor, because that could be accommodated in either system. Nor can it lie in the view that the costs of running a firm are cheaper than going to the spot market, for that is also true in both cases. Rather it has to do with all the features that I referred to above. The choice of partners and employees is hardly random. It could easily be that the abler person chooses to pick a lesser party as the employee precisely to avoid the share of control that comes about with the partnership arrangement.

Thus suppose we know that of the two persons in question one has a greater intellectual ability and awareness of the general surroundings. The other has lesser abilities and experience, so that both competence variables line up in the same way. It is not credible to assume that second person will be the employer and the first person will be the employee. The combination of traits indicates that the total gains from cooperation will be greater if the abler person takes control on the hand and a equity position in the revenues of the firm on the other. Both parties know this arrangement, for the ability to recognize that other people are smarter than you are does not depend on your being as smart as they are. People can know what they do not know. The employment relationship thus gives the appropriate debt/equity protection for human capital. The employee with less knowledge or ability gets a first call on assets. His protection lies in the fact that his wages come before his boss's profits. The boss for his part gets the benefit of leverage. By taking the higher risk he generates the greater return. The employee takes both less risk and needs less information to monitor the arrangement to preserve his interest. The

fundamental asymmetries in abilities tend to lead to a sensible division of risk which in turn depends on a sensible allocation of functions. In more complex structures with multiple employees these characteristics may lead to different results, but throughout the analysis the same basic factors are likely to be evident.

The paradigmatic case of the partnership usually starts from a different set of implicit assumptions about the competence and interests of the parties. In the simple two party case, the partnership posits two persons with equal ability and with an equal capacity to take and absorb risks. The business could have strong specializations in labor, so that one party does the outside marketing and sales and the other the inside jobs of design and manufacture. In other cases, there could be a virtual identity of functions, as with two writers who are working as equals on a joint script. In other situations, the level of specialization could be imperfect, as with Rogers & Hammerstein, where one party does music and the other lyrics, but each side clearly influences what is done by the other.

In effect, the full range of behaviors help drive the parties to one form of organization relative to another. Yet once the types are cast the behaviors are not as free-form as the Alchian/Demsetz model suggests. The patterns of control are highly regular and neither party typically wants to jeopardize the long-term relationship by insisting on some inversion of the basic structure of control and rewards. The level of specialization is driven in part by the differences in natural endowments and the taste for risk. There has of course to be some form of synergetic gain for them to enter into this long term arrangement at all, but these differences in taste and competence help explain the form that the cooperative venture will take. In sum, the key point remains, the likelihood of forming an employment relations increases, *ceteris paribus*, with the differential abilities of the parties.

There is of course a further question of whether certain persons wish to be in any kind of arrangement at all. There is a customary division of types between individuals who are lone wolves on the one hand and those who are cooperative types on the other. It is a pretty good hunch that these personality types will indicate whether persons are comfortable in working in long-term cooperative

arrangements, where high levels of trust are needed (which is true of both the partnership and the employment relationship) or whether they prefer the arm's length relationships that involve the sale of finished products (no warranties) for a fixed price (no financing) to the cooperative venture. And there is no doubt that we should expect people to sort themselves out in accordance with their comfort level in different organizations.

LEGAL IMPLICATIONS These basic considerations have some instructive applications in dealing with legal issues that surround the employment relationship. As a matter of first principle, the Coasean approach to transaction costs is strongly supportive of a regime of freedom of contract in labor relations. These labor contracts are by persons on the opposite side of the labor market. These markets are, of course, not perfectly competitive, as there are always search and negotiation costs associated with the creation of individual deals. Yet at the same time, there are no systematic negative third party effects such as those found with contracts in restraint of trade. And there are no obvious defects of character which make either fraud or undue influence a substantial risk. The exact terms of these contracts will of course vary widely across industries and firms, in part because of the relative abilities of an employer to evaluate the contribution of an employee, and of the employee to evaluate the conditions associated with the jobs. Put otherwise, labor contracts have many of the same qualities as a contract for the barter of goods because each side is rightly concerned with the package of nonpecuniary benefits that it derives from the other.

These transactional difficulties offer one explanation as to why it is that parties often prefer to enter into arrangements that are at will on both sides. These agreements economize on the cost of separation and they offer each side protection against the opportunistic behavior of the other. It is, moreover, quite common that these contracts prove stable over long periods of time precisely because the legal arrangements facilitate the cooperation on all sides. The simplicity of the contract at will, moreover, doubtless produce additional gains relative to other forms of agreement as the number of employees increase. The arrangement permits both

sides to take into account the interactive effects among employees, and permits the quick adaption of the work force to meet the ever changing demands of the job.

More to the point here, the ubiquity of these arrangements suggests that it works well regardless of the relative competence level of the particular individuals to the deal. If each party knows something about what to expect from the other side, the agreement will prove stable so long as those original expectations hold good. In addition, the ability to vary wage terms and responsibilities, for example, means that the basic employment at will framework is capable to adjust to changes in competence levels, positive or negative, over time. Put otherwise, complex agreements have to be highly context specific, and thus are likely to depreciate in value as circumstances change. They may be fine for CEOs but not for most settings. The premium on simplicity is thus efficiency driven in part because it is the one size that more or less fits all.

In the current legal environment, however, labor contracts are often subject to extensive forms of regulation, including the wide variety of antidiscrimination laws that also see the risk of exploitation in standard labor contracts on the ground of race, sex, or national origin. In principle, I believe that competitive markets tend to discipline any firm that distinguishes among employees on this ground, but only if the output of the firm is compromised by its internal system of categorization. The received wisdom on the issue, however starts from the opposite premise that competitive discipline (which is a central part of the Coasean analysis of the firm) does not restrain forms of invidious discrimination, which here cover those market practices that are said to reflect bias and prejudice instead of a concern with profit maximization.

It is commonly held within the law of employment discrimination that forms of discrimination are difficult to detect—unless of course they are embodied in affirmative action programs that are intended to combat the hidden forms of discrimination that are said to pervade the area. Direct proof of discrimination is, however, difficult to prove. My own view is that it is hard to prove because often it does not happen. But for many individuals, the prior belief that such discrimination

is common leads to the use of various statistical techniques to infer discrimination from the distribution of jobs by category within the work place.

The implicit assumption behind these models is that in a world without employer discrimination we should find a uniform distribution within and across occupations by race, sex, age, and ethnic background. Here the most confident prediction is the most general. This position is called into question by the above analysis that sees wide variation in aptitudes, tastes and competence by individuals. There is of course no necessary reason that these should line up by any of the categories that are subject to scrutiny under the antidiscrimination laws. But by the same token, once we admit that variations in these individual attributes are common within any particular classification, no matter how defined, by any realistic estimation we should not be surprised, and indeed should even expect, differences in preferences and abilities across these categories. The upshot therefore is that in any complex environments that individuals will not be distributed randomly across either occupations or positions in firm either within and across groups.

The “within” part of the analysis will in general not create huge concerns, but the differences across groups will surely give rise to claims that deal with discrimination, and the attitude we take on this question will in principle determine exactly how we respond to these claims? One possible view is to rely on these categorical distinctions in order to impose bans on certain kinds of employment. Sex differences were commonly thought to justify these distinctions in a wide range of contexts. Thus the infamous decision of *Bradwell v. Illinois*¹⁴ appealed to the theory of sex differences that led to banning women from the practice of law on the ground that the “paramount destiny and mission” of women under divine law marked them for service as wives and mothers.

The key point here is that even if this point could be established a matter of divine truth, it would not justify the ban in question. Why would any women or potential employers choose to tempt fate. The legal prohibition thus is unneeded given the self-correcting nature of the system. More to the point, any statutory ban

¹⁴ 83 U.S. 130 (1872).

also overlooks the key element of variation in competence within groups. So that the restriction never made any sense so long as people are able to self-sort. Those men and women who want to tempt fate may well have private information that they can put to great use in any market.

It may well be thought that only conservative and religious zealots could think of these unnecessarily restrictive schemes, but that point is in fact false. In the Progressive era, the great case that introduced the “Brandeis brief,” whose purpose was to explain the sociological justification for various limitations on contractual freedom was in fact introduced to support a selective minimum wage law that applied to women only, in order to protect them from arduous labor.¹⁵ The Brandeis brief remains a tool of litigation, but it is clear that modern notions of equal protection law have produced this element of liberalization in labor markets—differential maximum hour laws for women are now flatly constitutional. But it would be wrong to see in this movement a strong antipaternalistic streak in modern judicial decisions. The perceived imbalance by sex in these cases attacks what has been term “class legislation.”¹⁶ That want of parity could be cured in either of two ways: extend the maximum hour laws to both sexes (at greater social loss), or repeal it altogether. The direct protection of liberty of contract, in contrast, rules out the former and therefore gives exclusive pride of place to the latter.

It is therefore wholly improper to use collective views of class differences *offensively* to restrict certain classes of individuals from certain types of employment. By the same token, it is wrong in my view to ignore the level of natural variation by using the law to ban private decisions of employers and employers to sort themselves out by any of these categories. The point is especially important in disparate impact cases which seek to draw inferences of discrimination without proof of disparate treatment. So long as any talents and abilities are differentially distributed—and some surely are—the one sure sign of explicit

¹⁵ See *Muller v. Oregon*, 208 U.S. 412 (1908).

¹⁶ Howard Gillman, *THE CONSTITUTION BESIEGED: THE RISE AND DEMISE OF LOCHNER ERA POLICE POWERS JURISPRUDENCE* (1993).

discrimination in a lock-step distribution by occupational category. The assumption of uniformity will lead systematically to the wrong conclusion by finding discrimination where it does not exist.

This basic point is demonstrated quite powerfully for sex differences in occupations in Victor Fuch's somewhat dated but still instructive book on *Women's Quest for Economic Equality*.¹⁷ The particulars here do not matter, but what was instructive is that even within fairly tight occupational classifications, e.g., doctors, the sex differences between say dermatologists and neurosurgeons was quite conspicuous, and doubtless reflects at least in part some natural sorting mechanism that, far from being the result of discrimination by employers, instead rests on preferences by employees. That same line of argument was put to effective, if controversial use in *EEOC v. Sears Roebuck & Co.*,¹⁸ where the company mounted a successful defense against charges of employment discrimination by showing that the women applicants preferred for a variety reasons sales work within stores rather than that which required them to go door-to-door. Someone who works in the Coasean tradition should be sensitive to variations that take place within particular categories of employment. Workers have more fine-grained information than economic analysts, so that the professional categorization is always less rich than the local variations.¹⁹ Once we are alert to differences in competence and preferences, we should move much more slowly in imposing regulations on markets whose internal operations we do not understand.

Let me mention several other ways in which differentials in competence help to shape the content of the substantive law in two areas that on first view appear to have little in common: securities law and ordinary negligence;

¹⁷ Victor Fuchs, *WOMEN'S QUEST FOR ECONOMIC EQUALITY* (1989).

¹⁸ 839 F.2d 302 (7th Cir. 1988)

¹⁹ James Heckman, Detecting Discrimination. 12 J. Econ. Persp. 101 (1998).

Securities Regulation It is commonplace in modern securities regulation to indicate that the law should design its protect to make markets accessible to small investors. I regard this as a serious mistake in institutional design, once it seems clear that by aptitude, training or experience individuals are likely to have highly distinct trading skills. Trying to organize a single voluntary market to accommodate all levels of trading skills is always a mistake. It is like trying to organize a public freeway with a bike lane, or a race on the Indianapolis speedway that must also accommodate go-karts. The clear point here is that segregation of markets by abilities has the real advantage of speeding up the level of interaction because each person knows that it can expect the highest level of performance from others.

Accordingly, social institutions that develop internal norms that depend on high levels of sophistication should be binding on all outsiders that know that they have entered into this specialized arena, and customary terms should therefore be binding on strangers who have knowledge that they have entered into these markets. The key insight is that market separation beats market homogenization. That point is instinctively recognized in other settings when tournaments are organized by age, by sex, by weight, by experience, by time, or by ranking, or whatever. No one would think of putting the slowest runners at the front of a marathon race on the grounds that would it would tend to equalize out natural ability differences, which of course competitions are meant to exploit.

The differential levels of ability in securities markets also helps to explain a market phenomenon of greater importance—the rapid expansion and complete implosion of market bubbles. There is some real reason to expect that rational actors can foresee the future and should therefore be able to avoid markets that show high levels of instability that can wipe out their positions. Yet the stock market, and real estate bubbles of recent years can easily be read to convey the opposite message, namely that markets do not have these naturally stabilizing characteristics. And there is good reason to believe that it is so, even if it is very difficult, if not impossible to device regulatory safeguards sufficient to counter so potent an abuse.

The causal mechanism could easily be this. When markets are stable, the only traders are experience traders who are not looking for outsized rates of return. But once these markets start to move, less experienced players enter in search of larger gains, and these persons do not have the same level of honed instinct as to when a position is pushed too far. The newcomers drive the market up, and the hard question for the experts is how long they want to stay on for the ride. At the initial stages some will be confident that they can sell to the next generation of buyers independent of any value of the underlying assets. The higher prices bring in yet other players who know still less. But sooner or later the two pressures reverse. The experienced players head for the exit, each hoping to beat the stampede. The latest players come in with the least experience, but they in turn find that the class of newcomers is exhausted so they have no place to turn, at which point the entire model crumbles.

I see no way in which we can build an explanation about bubbles if we take seriously the assumption that all individual actors satisfy the axioms of rational choice theory. It is only when these differentials are taken into account that we can get a sensible answer. The point seems to have some real empirical foundation. Recent work by Ernan Haruvy and colleagues suggests that as players learn the ropes, the likelihood of asset bubbles reduces, which is exactly as it should be.²⁰ The normative conclusions are much harder to deal with because it is so hard to figure out how to keep novel players from coming into open entry markets in which they do not have the skill levels to perform well. The basic dilemma thus is familiar. The one losing combination is no restrictions on entry coupled with back end protection for those who fall off the edge. The better proposals are to either impose limitations on entry or to refuse to give any assistance to allow for voluntary sorting.

Automobile Accidents The same result is found in dealing with standards of care in various kinds of accident cases. In highway accidents between strangers, the standard rule is that both plaintiffs and defendants have to hew to the same

²⁰ Ernan, Haruvy, Yaron Lahav, and Charles N. Noussair *Traders' Expectations in Asset Markets: Experimental Evidence* 97 AMERICAN ECONOMIC REVIEW 1901 (2007).

standard of care, i.e. follow the rules of the road.²¹ Otherwise it becomes impossible to know what expectations the drivers should form about the conduct of countless other drivers of whom they have no discrete knowledge. The effect of this rule therefore is to induce beginners to learn off road in parking lots under tight supervision, which is as it should be. Thereafter, in transition—and transitions are always dangerous—new drivers often have markers on the tops of their vehicles so that others can keep at a safe distance, thereby reducing the risk of accident, without changing the rules of the road.

Yet once the individual pairings are known subjective standards of liability make a good deal more sense. Thus if a given individual agrees to teach a novice how to drive, at this point there is only a one on one interaction in which the teacher knows of the additional risk, which in turn makes it sensible to accept a lower standard of care.²² There is, in a word, no accuracy for any economic model of contributory negligence that fails to distinguish between these two situations. Rather, the fuller account provides a sensible way in which to sort out transactions in which uniform standards are required from those in which they are not.

CONCLUSION The purpose of this short paper is to introduce simple notions that help to organize complex spheres of human interaction. The great contribution of Coase is to indicate how transactions costs help explain the familiar forms of behavior that are adopted by various organizations. It would, however, be a mistake to assume that the only drivers of market structure are transaction costs variable. But whenever we look at labor or other markets, it seems likely that the common sense reaction that all people are not rational does have some purchase. The point here is not that people are willfully self-destructive, although some are. Rather it is to

²¹ See *Charbonneau v. MacRury*, 153 A. 457 (N.H. 1931).

²² *Holland v. Pitocchelli*, 13 N.E.2d 390 (Mass. 1938). For a longer discussion of why different levels of competence imply that there is no single optimal standard of care in other areas of negligence law, see Richard A. Epstein, *The Many Faces of Fault in Contract Law: Or How to Do Economics Right, without Really Trying*, 107 MICH. L. REV. 1461 (2009).

remind us of this simple point. If everyone but rational choice theorists are aware of the differential capacity and foibles of human beings, it is wise for economics, and even for lawyers, to follow their lead. The former should do it in order to get a better grip of human behavior in a wide range of settings. The latter should do it to be aware of how our limitations of knowledge should caution us against hasty judgments about matters we don't understand. Ronald Coase was always aware of that problem. He wrote: "if an economist finds something—a business practice of one sort or another—that he does not understand, he looks for a monopoly explanation. And as in this field we are very ignorant, the number of ununderstandable practices tends to be vary large, and the reliance on the monopoly explanation frequent."²³ To which Michael Levine in the final words on a paper on price discrimination added the words "Too frequent, it appears."²⁴ In many complex industrial model, it is quite unnecessary to relax the model of uniform competence. The forces of selection are too strong. But most or the world does not consist of high-powered exchanges, and so to understand the nature of the firm, and much else beside, we must beware the rational choice explanations only explain part of the picture. Trying to piece together the implications of differential competence helps to fill the gap.

²³ Ronald H. Coase, *Industrial Organization: A Proposal for Research*, in *POLICY ISSUES AND RESEARCH OPPORTUNITIES IN INDUSTRIAL ORGANIZATION* (V. Fuchs, ed. 1972).

²⁴ Michael E. Levine, *Price Discrimination without Market Power*, *Yale J. Reg.* 1 (2002)