

2009

Economic Regulation of Physicians: A Behavioral Economics Perspective

Thomas L. Greaney
Saint Louis University School of Law

Follow this and additional works at: <https://scholarship.law.slu.edu/lj>



Part of the [Law Commons](#)

Recommended Citation

Thomas L. Greaney, *Economic Regulation of Physicians: A Behavioral Economics Perspective*, 53 St. Louis U. L.J. (2009).

Available at: <https://scholarship.law.slu.edu/lj/vol53/iss4/10>

This Childress Lecture is brought to you for free and open access by Scholarship Commons. It has been accepted for inclusion in Saint Louis University Law Journal by an authorized editor of Scholarship Commons. For more information, please contact [Susie Lee](#).

ECONOMIC REGULATION OF PHYSICIANS: A BEHAVIORAL ECONOMICS PERSPECTIVE

THOMAS L. GREANEY*

It is clear from everyday observation that the behavior expected of sellers of medical care is different from that of businessmen in general.¹

[For physicians], [n]onfinancial incentives such as patient outcomes, autonomy, regret, and peer approval, may have as strong or stronger an impact on physician behavior than financial incentives.²

INTRODUCTION

With physicians controlling over seventy percent of health care spending,³ regulation of physicians' economic activities—i.e., laws that affect how physicians compete, are paid for services, and structure their practices and joint ventures—is central to healthcare policy. One might therefore expect that, over the several decades in which they have been grappling with the health care sector, scholars and regulators might have formed clear notions of how physicians respond to economic signals and how the law might best structure financial incentives and penalties. One will be disappointed by the report of this Article: Relying on simplistic and unrealistic assumptions about physician behavior, the law has fallen short on both counts.

A theme emphasized in my prior writings is that much of economic regulatory law has been slow to recognize that markets for health care services depart from conventional economic assumptions and that market-oriented

* Chester A. Myers Professor of Law and Director of the Center for Health Law Studies, Saint Louis University School of Law. Thanks to Sandra Johnson for valuable comments and insights, and to Annie Harkins for outstanding editorial assistance.

1. Kenneth J. Arrow, *Uncertainty and the Welfare Economics of Medical Care*, 53 AM. ECON. REV. 941, 949 (1963).

2. Robert Town et al., *Assessing the Influence of Incentives on Physicians and Medical Groups*, 61 MED. CARE RES. & REV. 80S, 93S (Supp. 2004).

3. Ezekiel J. Emanuel & Lee Goldman, *Patient Welfare in Managed Care: Six Safeguards*, 23 J. HEALTH POL. POL'Y & L. 635, 636 (1998).

government policies need regulation to work properly.⁴ Indeed there is scarcely any dispute among health care economists that myriad market imperfections in health care complicate almost every regulatory task. Imperfect information, agency, adverse selection, and moral hazard in insurance make it difficult to assure that regulations intended to make markets work more efficiently, or to lessen their undesirable side effects, will succeed. This Article extends that theme by considering some of the factors underlying market imperfections. It suggests that the tools of behavioral economics and the literature on social norms may enrich our understandings of physician behavior in the market and their responses to regulation.

Given the pervasive complexity and ambiguity of medical decisionmaking, it is somewhat surprising that behavioral analysis has not garnered greater attention among scholars or policy makers.⁵ The quotations at the beginning of this Article, written by prominent economists forty years apart, acknowledge the pressing need for a more nuanced account of physicians' economic decisionmaking. As she so often has done in her distinguished career, Professor Johnson, in her leading article in this issue has challenged academics to reexamine how law should regard physician conduct.⁶ The new avenues of research suggested in this Article are a modest addendum to her fine contribution.

I. WHY REGULATE PHYSICIAN ECONOMIC ACTIVITIES?

Economic regulatory law in health care concerns two tasks: awarding and financing the right to receive health services, and regulating exchanges in the market once they have been allocated.⁷ Law relies on economics as one tool—not the only tool, but an important one—to assess both how to parcel out entitlements and how to regulate the market for distributing them. As a general matter, the rationale for the latter rests on correcting a market failure,

4. See, e.g., Thomas L. Greaney, *Chicago's Procrustean Bed: Applying Antitrust Law in Health Care*, 71 ANTITRUST L.J. 857 (2004); Thomas L. Greaney, *Competitive Reform in Health Care: The Vulnerable Revolution*, 5 YALE J. ON REG. 179 (1988).

5. Richard G. Frank, *Behavioral Economics and Health Economics*, in BEHAVIORAL ECONOMICS AND ITS APPLICATIONS 195, 195 (Peter Diamond & Hannu Vartiainen eds., 2007) (noting the dearth of scholarship applying behavioral economics to health economics despite the fact that "one might expect that sector to be a breeding ground for applied behavioral economics").

6. Sandra H. Johnson, *Regulating Physician Behavior: Taking Doctors' "Bad Law" Claims Seriously*, 53 ST. LOUIS U. L.J. 973 (2009).

7. See Russell Korobkin, *The Endowment Effect and Legal Analysis*, 97 NW. U. L. REV. 1227, 1227 (2003).

though the specific justification may vary with the ends sought.⁸ For example, regulation of physician fees by government payors may rest on imperfections in information and agency problems; preventing self-referrals may be grounded on avoiding conflicts of interest associated with imperfect agents; and licensure and other regulations of entry and conditions of payment rest on information asymmetry.

Agency and information problems present the most compelling case for physician regulation. Patients are generally poorly informed about diagnoses and treatment options even after consultation with professionals because of their own lack of medical knowledge and, to some extent, the professionals' inability or reluctance to fill the information gap. For their part, physicians lack full information about patients' preferences and as extensive research has shown, information on efficacy of treatments is scarce.⁹ Moreover, physicians may have financial incentives to over-provide or under-provide care, which undermine their ability to serve as "perfect agents" for their patients.¹⁰

Economic analysis adopts a variety of assumptions about both the nature of the market under study and about human behavior in those markets. Among other things, it assumes that both buyers and sellers have good—economic theory likes to say "perfect"—information; that the services or products are homogeneous; and that buyers and sellers are "rational." Yet, few markets exhibit as marked a departure from this theoretical framework as health services. Patients (buyers) in the market know very little about the quality, necessity, cost, or alternatives of much of what they get in health care.¹¹ It also turns out that *doctors* are poorly informed on many critical items, including both efficacy of treatment and their patients' preferences.¹² Further, the services one buys are far from homogeneous: hospitals vary significantly in quality, amenities, reputation, and convenience; doctors vary in training, effort, caring, and communications skills. Complicating things further, the "triple agency" relationship of doctor-patient-payer means that most health care transactions go through several levels of intermediaries. For example, you

8. On market failures in health care, see THE CONCISE ENCYCLOPEDIA OF ECONOMICS 235, 235–41 (David R. Henderson ed., 2008), and PAUL J. FELDSTEIN, HEALTH CARE ECONOMICS 468–74 (5th ed. 1999).

9. See generally E. Haavi Morreim, *A Dose of Our Own Medicine: Alternative Medicine, Conventional Medicine, and the Standards of Science*, 32 J.L. MED. & ETHICS 222, 222–25 (2003) (noting a number of common medical procedures and treatments, the efficacy of which is not supported by medical science).

10. See Thomas H. Rice, *The Impact of Changing Medicare Reimbursement Rates on Physician-Induced Demand*, 21 MED. CARE 803, 804 (1983).

11. Thomas G. McGuire, *Physician Fees and Behavior: Implications for Structuring a Fee Schedule*, in INCENTIVES AND CHOICE IN HEALTH CARE 263, 264–66 (Frank A. Sloan & Hirschel Kasper eds., 2008).

12. See Morreim, *supra* note 9, at 222–25.

depend on your doctor to determine what you need and how and where the service will be delivered; if you have insurance, your insurer shapes the availability and costs of getting that service; and for most people the purchase of insurance is limited by the choices made by their employers. Patient “demand” is pulled (sometimes in the same directions, sometimes in the opposite directions) by these imperfect agents. Economists term these phenomena “market imperfections”—meaning the health care market does not adhere to their model.¹³ In cases in which these imperfections are serious, they sometimes use the phrase “market failure”—meaning, unless corrected, these imperfections dictate that the market will not deliver what economic theory promises: a mechanism for satisfying our desires, as measured by our willingness to buy services.

Theoretical and empirical analyses of physician pricing decisions have long noted that physician behavior does not conform to patterns predicted by conventional economic theory. Early studies noted that the number of physicians in markets correlated positively with prices: more physicians, higher prices—the opposite of the pattern predicted by conventional economic theory.¹⁴ Other studies showed that the volume of services supplied by physicians increased when prices were lower.¹⁵ Observing various anomalous characteristics of physician markets, economists have advanced several theoretical frameworks seeking to explain how physicians set their prices. The first avenue explored was whether cartel behavior, encouraged by professional associations, enabled physicians to control price and output.¹⁶ Others later advanced a “target income” theory, hypothesizing that when doctors exercise their power over pricing (and perhaps price discriminate) they may seek to achieve a fixed “target” income and not to maximize their market power.¹⁷ Subsequent work questioned whether they did so in order to better serve their patients; this scholarship suggested that they might do just the opposite: increase the number of services to serve their own interests. In the 1980s, the latter explanation gained currency as physician markets responded to price

13. On economic analysis of market imperfections in physician markets, see David Dranove & Mark A. Satterthwaite, *The Industrial Organization of Health Care Markets*, in 1 HANDBOOK OF HEALTH ECONOMICS 1093 (Anthony J. Culyer & Joseph P. Newhouse eds., 2000); Thomas G. McGuire, *Physician Agency*, in 1 HANDBOOK OF HEALTH ECONOMICS, *supra*, at 461.

14. See, e.g., Victor R. Fuchs, *The Supply of Surgeons and the Demand for Operations*, 13 J. HUM. RESOURCES 35, 52–54 (Supp. 1978); see also Charles E. Phelps, Editorial, *Induced Demand—Can We Ever Know Its Extent?*, 5 J. HEALTH ECON. 355, 359–60 (1986) (responding to results of Cromwell and Mitchell study which showed that an increase in supply of physicians performing surgical procedures caused a perverse increase in price).

15. See, e.g., Rice, *supra* note 10, at 814.

16. Reuben A. Kessel, *Price Discrimination in Medicine*, 1 J.L. & ECON. 20, 25–32 (1958).

17. Fuchs, *supra* note 14, at 54.

controls (which lowered prices) by expanding the number of services.¹⁸ The economic account of this phenomenon is broadly labeled “physician-induced demand”—giving recognition to the fact that physicians, unlike almost any other sellers, are able to increase the amount of services they supply because they exert strong influence over the patient.¹⁹ (Simply illustrated, a doctor who announces “I want to see you every six months” instead of once a year, has doubled her patient’s demand for routine office visit services.)

The extent to which this behavior results in an inappropriate amount of care has been the subject of much analysis. Obviously physicians strongly influence most choices made by patients; the question is whether they exert “undue” or self-interested influence. Complicating the analysis are issues such as whether the physician is influencing demand or whether the payment incentive of managed care is affecting utilization; and whether income or substitution effects dominate. Though subject to dispute, most economists agree that some degree of inducement exists.²⁰ Peeling the onion back further, however, economics offers only a glimpse into the motivations and causal factors underlying physician inducement. As discussed in Part II of this Article, a growing literature in other academic disciplines suggests that professional norms, localized professional customs, and organizational arrangements contribute strongly to shaping physician attitudes and behavior in the marketplace.

Empirical work lends support to the claim that physicians’ response to market signals diverges significantly from what would be expected under conventional economic assumptions. Undoubtedly, the most well-known anomaly is the one exposed by John Wennberg and his colleagues at Dartmouth.²¹ Their analysis reveals the huge discrepancies in health care costs (and therefore treatment patterns) among geographic areas around the nation. This research, which extends back almost thirty years, identifies significant and persistent variations in medical procedures that are not explained by

18. See McGuire, *supra* note 11, at 263, 264–66.

19. See generally Fuchs, *supra* note 14, at 35 (“Many physicians believe that they have almost unlimited power to shift demand.”); Rice, *supra* note 10, at 803 (“Demand inducement occurs when a physician recommends or provides services that differ from what the patient would choose if he or she had available the same information and knowledge as the physician.”).

20. See Henry J. Aaron, *To Find the Answer, One Must Know the Question: Health Economics and Public Policy*, in INCENTIVES AND CHOICE IN HEALTH CARE, *supra* note 11, at 21, 30 (“[I]f physicians are willing to do more of certain things when paid well to do them, it is hard to see why the idea that physicians might induce demand was ever controversial.”).

21. John E. Wennberg, *Practice Variations and Health Care Reform: Connecting the Dots*, 23 HEALTH AFF. VAR140, VAR140 (Web Exclusive, Aug. 7, 2004), available at <http://content.healthaffairs.org/cgi/reprint/hlthaff.var.140v1>; see ELLIOT FISCHER ET AL., TRACKING THE CARE OF PATIENTS WITH SEVERE CHRONIC ILLNESS: THE DARTMOUTH ATLAS OF HEALTH CARE (2008).

demographics, patient characteristics, specialty mix, or outcomes.²² Despite the solid consensus on the existence of these variations, our understanding of their causes and the underlying link to physician behavior and motivation is incomplete.²³ Perhaps the most startling lesson drawn from the significant body of research regarding the complexity and variability of factors contributing to physicians' economic behavior is the conclusion reached by many prominent economists: Economic analysis has no agreed upon theoretical model of physician behavior.²⁴

II. WHAT CAN BEHAVIORAL ECONOMICS CONTRIBUTE?

One of the pivotal underlying assumptions of economics is Rational Choice Theory (RCT). Simply put, RCT assumes that all economic actors (buyers, sellers, and agents) will seek to maximize their expected utility given the information available to them.²⁵ While the theory offers the advantage of simplicity and predictability when applied in modeling behavior, its power to explain behavior is questioned by behavioral economists. They find RCT is seriously flawed in many applications, is descriptively inaccurate, and is subject to systematic errors.²⁶ Behavioralists offer a description of choice that is based on empirical studies of behavior conducted by social scientists, most often cognitive and social psychologists and experimental economists. This body of literature suggests that, especially when operating with limited information or facing complex choices, individuals often make decisions and

22. Wennberg, *supra* note 21, at VAR140–41.

23. Henry Aaron observes these variations in care:

The fact is that we just do not understand why 'Wennberg variations' exist. Nor do we have any idea about why they seem not to have narrowed in the three decades since they were first identified. Indeed, we are not even sure whether they have narrowed or widened. We still do not know, except in a few areas, whether variations are evidence of overuse, underuse, or most likely both.

Aaron, *supra* note 20, at 31 (citation omitted).

24. Thomas McGuire explains that it is "not surprising" that economics lacks such a model, given that it would have to account for "physician nonprofit-maximizing behavior, demand-side moral hazard with insurance, physicians' ability to induce demand, the quality of care, fixed and nonconstant costs, and the presence of multiple payers." McGuire, *supra* note 11, at 276–77.

25. *E.g.*, STEVEN SHAVELL, FOUNDATIONS OF ECONOMIC ANALYSIS OF LAW 1–2 (2004) ("[T]he view taken [under economic analysis] will generally be that actors are 'rational.' That is, they are forward looking and behave so as to maximize their expected utility."); Russell Korobkin, A "Traditional" and "Behavioral" Law-and-Economics Analysis of *Williams v. Walker-Thomas Furniture Company*, 26 U. HAW. L. REV. 441, 447 (2004) ("[RCT posits that] individuals will take actions designed to maximize the differential between expected benefits of their actions and expected costs.").

26. See Avishalom Tor, *The Methodology of the Behavioral Analysis of Law*, 4 HAIFA L. REV. 237, 241 (2008), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1266169 ("Individuals' judgments and choices exhibit behavioral regularities that deviate, predictably, from the patterns expected of hypothetical rational actors.").

select actions based on heuristics, or rules of thumb, rather than on the basis of “rational” calculations of costs and benefits.²⁷ Because these different cognitive approaches can lead to behaviors that diverge from those predicted by neoclassical economics, the impact of legal regulations may depart from what is presumed under the conventional microeconomic theory underlying most law and economic principles. At the same time, behavioral economics can provide important insights into how regulation can direct behavior.

One important observation of behavioral science is that individuals are “boundedly rational”—they may take shortcuts in making decisions, and these decision aids frequently result in choices that fail to maximize their utility. While heuristics may simplify choice, in many cases they result in decisions that cause individuals to sacrifice utility.²⁸ There is little controversy among social scientists that “bounded rationality,” resulting from the high cost of processing information, the cognitive limitations of human beings, or a combination of the two, is endemic in health care decisionmaking.²⁹

While other taxonomies of behavioral theory are possible, Professor Stucke offers a useful catalogue of “anomalies” growing out of bounded rationality:

- loss aversion (namely having significantly greater concern about losing a given amount than in the utility of gaining the same amount);
- the endowment effect (when we demand much more to give up and sell an object than what we would be willing to pay to acquire that object);
- status quo bias [(preferring the present state of the world to alternative states, all other things being equal)] . . . ;
- framing effects ([decisions influenced by] the way the choice is framed—such as a sure gain or avoiding a loss . . .);
- availability heuristic (when we assess the probability of an event by asking whether relevant examples come readily to mind);
- representative heuristic (when we ignore the base rates and overestimate the correlation between what something appears to be and what something actually is);

27. See generally Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CAL. L. REV. 1051 (2000) (arguing that future law-and-economics scholarship would benefit from using a “law and behavioral science” analysis, rather than RCT, because RCT’s behavioral assumptions about self-interest fail to recognize that individuals will often make decisions relying on “a range of decision-making shortcuts and heuristics”).

28. *Id.* (“[T]he use of heuristics surely results in the widespread failure of decisionmakers to maximize their expected utility in particular decision situations.”).

29. *Id.* at 1075–76.

- overconfidence bias (when we believe that good things are more likely (and bad things less likely) than average to happen to us); and
- hindsight bias (our tendency to overestimate the ex ante prediction that we had concerning the likelihood of an event's occurrence after learning that it actually did occur).³⁰

Besides elucidating how preferences and choices are influenced by the factors described above, behavioral research also shows how individuals exhibit preferences that are not purely self-interested.³¹ There is evidence, for example, “that people care about both giving and receiving fair treatment,” and that such concerns manifest themselves in making decisions in the market.³² Likewise, compliance with recognized social or professional norms can exert significant influence over preferences and choices; individuals exhibit a strong allegiance to such norms and will deviate from expected utility maximization to comply with their standards.³³ Behavioral economists identify other propensities that cause choices to fall short of the standard assumed under RCT. For example, individuals may be strongly influenced by fears of regret from a decision.³⁴ Thus, one may overweigh the probability or magnitude of a potential adverse result because of the concern that he may regret his decision. In the context of physician decisionmaking on behalf of patients, behavioral economists hypothesize that fear of regret may be a significant factor.³⁵

When such biases, norms, and heuristics are present, there are two important implications for legal analysis and regulatory policy: individuals will be prone to make judgment errors, and their behavior as actors in the market may deviate from the precepts of expected utility theory. Though research in this area is still in its infancy, there are strong reasons to infer that many decisions made by physicians, which have important economic consequences

30. Maurice E. Stucke, *Behavioral Economics at the Gate: Antitrust in the Twenty-First Century*, 38 LOY. U. CHI. L.J. 513, 527–28 (2007) (bullets added) (internal quotation marks omitted) (footnotes omitted). See generally Christine Jolls et al., *A Behavioral Approach to Law & Economics*, 50 STAN. L. REV. 1471 (1998) (suggesting that a behavioral economic approach to legal analysis necessarily involves the positive, prescriptive, and normative functions of the law); Korobkin & Ulen, *supra* note 27, at 1075–76 (discussing the causes of boundedly rational decisionmaking and its importance in the analysis of legal rules).

31. Tor, *supra* note 26, at 268.

32. *Id.* at 268–70.

33. See *id.* at 268–72. On social norms generally, see Cass R. Sunstein, *Social Norms and Social Roles*, 96 COLUM. L. REV. 903, 943–44 (1996).

34. See, e.g., Richard H. Thaler, *Toward a Positive Theory of Consumer Choice*, in CHOICES, VALUES, AND FRAMES 269 (Daniel Kahneman & Amos Tversky eds., 2000).

35. Frank, *supra* note 5, at 208 (“[T]he potential for regret [among physicians] is high and the physician has incentives to attempt to lower the *responsibility costs* of medical decision-making.”).

and which are governed by legal controls, are subject to the behavioral factors discussed above.

III. BEHAVIORAL ECONOMICS AND PHYSICIANS

Behavioral analysis has begun to make an important contribution in health care economic policy, especially in exploring issues arising on the demand side of market. The results of these studies, which should come as no surprise to persons without economic training, is that patients appear to make choices about health care that are context-dependent and subject to the pressures of stress, uncertainty, over-optimism, and other psychological (or perhaps one should say, human) factors.³⁶ The posited results are cognitive errors and failures to optimize in accordance with RCT predictions.³⁷ These studies can give guidance to policymakers in many areas, such as the need to standardize benefits under health insurance plans.³⁸

Economists have begun to take a closer look at the factors underlying physician decisionmaking, and they have found a variety of notable proclivities that underscore the significance of factors identified by behavioral economists as highly influential. For example, a review of the empirical literature examining physician prescribing practices and choice of services reveals systematic errors in predicting outcomes of treatments and that “physicians are prone to an optimistic bias.”³⁹ In addition, studies suggest that physicians may overestimate their own abilities relative to others to produce favorable outcomes.⁴⁰ The tendency of physicians to rely on habit and their individual clinical experience, even in the face of peer-reviewed literature and continuing

36. See, e.g., George Loewenstein, *Costs and Benefits of Health- and Retirement-Related Choice*, in *SOCIAL SECURITY AND MEDICARE: INDIVIDUAL VERSUS COLLECTIVE RISK AND RESPONSIBILITY* 87 (Sheila Burke et al. eds., 2000) (describing effects of uncertainty, risk, and regret on consumer choice of health and retirement plans); Jane C. Weeks et al., *Relationship Between Cancer Patients' Predictions of Prognosis and Their Treatment Preferences*, 279 *JAMA* 1709, 1712–14 (1998) (reporting that terminally ill patients, especially those with tendencies to make optimistic life-extending treatment choices, tended to over-estimate their prognosis despite contrary physician estimates).

37. Loewenstein, *supra* note 36, at 91–93.

38. Frank, *supra* note 5, at 216–17.

39. William Meadow & Cass R. Sunstein, *Statistics, Not Experts*, 51 *DUKE L.J.* 629, 634 (2001) (quoting NICHOLAS CHRISTAKIS, *DEATH FORETOLD: PROPHECY AND PROGNOSIS IN MEDICAL CARE* 66 (1999)) (internal quotation marks omitted) (“‘Virtually all’ of the existing studies of physicians ‘have documented frequent and large errors in predictions.’ No study finds a high level of accuracy. The errors tend in a particular direction: ‘physicians are prone to an optimistic bias.’”) (footnote omitted) (quoting CHRISTAKIS, *supra*).

40. See CHRISTAKIS, *supra* note 39, at 66–69; see also Meadow & Sunstein, *supra* note 39, at 634–35 (summarizing studies finding that physicians frequently make inaccurate, overly optimistic survival predictions).

medical education, is well-documented.⁴¹ As Professor Johnson summarizes the literature, “[o]nce established, or once learned, practice and prescribing patterns are hard to alter Habit may persist even when serious safety concerns emerge.”⁴²

Another group of studies shows a gap between physicians’ self-reported practices and their actual behavior. For example, while physicians purport to place high value on educating patients on health promotion and disease prevention, they fail to act in accord with those beliefs and overestimate their own efforts. Chart reviews show that physicians do not provide as much information to patients as claimed or recollected.⁴³ A third group of studies shows widespread departure from recommended practice. For example, a widely reported article in the *New England Journal of Medicine*, examining episodes of care for thirty chronic and acute conditions and some preventative practices, found that patients received care for those treatments an astonishingly low 55% of the time.⁴⁴ Given the low costs of adopting the basic techniques studied, these results might imply that physician treatment decisions were subject to influences such as status quo bias, saliency, and other shortcomings.

Another branch of research relevant to physician decisionmaking addresses how ideas and innovations take hold. In the language of economics, rational actors “update their priors” by adjusting to new learning and experiences based on a rational review of all the information available to them. As sociologists have long known, physicians tend to rely heavily on advice from colleagues, observed local practice patterns, and informal communications with peers and trusted sources.⁴⁵ Doctors’ training may contribute to a tendency to rely on their own experience or that of trusted colleagues over other sources of information.⁴⁶ These behaviors, consistent with the so-called availability

41. See Sandra H. Johnson, *Polluting Medical Judgment? False Assumptions in the Pursuit of False Claims Regarding Off-Label Prescribing*, 9 MINN. J. L. SCI. & TECH. 61, 74–82.

42. *Id.* at 79.

43. Meadow & Sunstein, *supra* note 39, at 640 (citing C. Tracy Orleans et al., *Health Promotion in Primary Care: A Survey of U.S. Family Practitioners*, 14 PREVENTIVE MED. 636, 643 (1985)).

44. Elizabeth A. McGlynn et al., *The Quality of Health Care Delivered to Adults in the United States*, 348 NEW ENG. J. MED. 2635, 2641 (2003).

45. See Frank, *supra* note 5, at 207–08 (summarizing studies suggesting physicians’ decisions with regard to innovative technology are consistent with the “availability heuristic,” in that they rely heavily on “low-cost local sources of information,” such as advice from colleagues, rather than the scientific literature).

46. Professor Johnson has drawn the link between medical training and clinical behavior as follows:

Perhaps because of their trust of experience over controlled studies, doctors may tend to rely on opinions of respected peers and opinion leaders within the profession rather than on clinical studies or clinical guidelines standing alone. Deference to “group think” and

heuristic, suggest that physicians' responses to changing treatment options sometimes depart from RCT. The apparent responsiveness of some physicians to even small gifts and remuneration, however, may seem to run in the opposite direction: that physicians are hyper-sensitive to economic incentives.⁴⁷ The response to such *de minimis* inducements may suggest a more complex interaction of economic motivation and the need for pragmatic shortcuts in making decisions.⁴⁸

A further consideration is the effect of the agency relationship on physician behavior. In situations in which economic theory would predict that physicians should act as "perfect agents"—where they have no financial interest either way in what they decide—they often depart significantly from recommended practice. The area of drug prescribing is an example. A variety of studies find that physicians are creatures of habit in prescribing drugs. For example, physicians have been slow to adopt drugs shown effective in improving outcomes, such as beta blockers, and have tended to resist switching to generic drugs or, in some cases, to improved versions of drugs.⁴⁹ Importantly this "stickiness" in prescribing practices is not caused by lack of information, training, or learning costs.⁵⁰ In the language of behavioral economics, they exhibit status quo bias; they may also be subject to heuristics based on saliency.

Finally, recall that in making purchasing decisions as medical consumers, patients are highly subject to deficits identified by behavioral theory.⁵¹ The interplay between patient and doctor in this setting poses a stark challenge to conventional microeconomic analyses of market behavior. One striking example cited by Richard Frank illustrates this point. In 1989 the State of New York sought to employ market forces to encourage better outcomes by publicizing risk-adjusted outcome data for surgeons performing more than 200 operations at certain hospitals.⁵² Despite widespread publicity of the data and apparent public awareness of the significant discrepancies in mortality rates, no

to a hierarchy of opinion may be a learned pattern of decision making adopted in the doctor's experience of residency training where the opinion of the attending physician is revered as authoritative.

Johnson, *supra* note 41, at 76.

47. Jason Dana & George Loewenstein, *A Social Science Perspective on Gifts to Physicians from Industry*, 290 JAMA 252, 252–55 (2003).

48. See Johnson, *supra* note 41, at 76–82 (describing the multiplicity of noneconomic factors that undermine the simple "conflict of interest" narrative).

49. Frank, *supra* note 5, at 199.

50. Judith K. Hellerstein, *The Importance of the Physician in the Generic Versus Trade-Name Prescription Decision*, 29 RAND J. ECON. 108, 108 (1999).

51. See *supra* note 36 and accompanying text.

52. Frank, *supra* note 5, at 209.

significant demand response occurred.⁵³ Understanding this anomalous (to economists) market response requires an understanding of the real world dynamics of the patient-doctor relationship. Empirical research suggests that in making medical decisions with potentially serious consequences, patients prefer to have their physician make the key decisions; this result holds even for patients who want to be fully informed.⁵⁴ Burdened by uncertainty and regret, patients may choose to delegate choice to a trusted third party even when they have sufficient information to act as “rational consumers.”⁵⁵ Moreover, the implication of behavioral research regarding patients’ formation of preferences suggests that improved information on quality may not result in a strong response in demand.⁵⁶

In sum, predicting physician behavior in response to economic factors requires an appreciation of behavioral research. Admittedly, translating the nascent research in this area into legal and policy prescriptions is fraught with risk. However, if one accepts both the implications of the behavioral decision research discussed above and the conclusion of Professor Town and his colleagues that “nonfinancial incentives such as patient outcomes, autonomy, regret and peer approval may have as strong or stronger an impact on physician behavior than financial incentives,”⁵⁷ a closer look at the assumptions of economic regulation of physicians is in order. In addition, this research underscores an often overlooked feature of health care law: The close link between clinical and economic decisionmaking requires that regulation address behavioral factors underlying both spheres.

IV. APPLYING BEHAVIORAL ECONOMICS TO HEALTH LAW AND POLICY QUESTIONS

What might behavioral economics contribute to our understanding of laws regulating physicians and employing financial incentives? This section describes topics of potentially fruitful inquiry in three areas involving significant economic regulation of physicians: (1) regulation of physicians’ fees and use of pay for performance (P4P) tools by Medicare; (2) prohibitions on self-referrals or accepting remuneration for referrals; and (3) litigation and regulation designed to encourage competition under antitrust law.

53. *Id.* at 210.

54. *Id.*

55. *Id.*

56. *Id.* at 206 (“The normative implication is that improved information may not result in an efficient quality equilibrium in the market unless some other institution is introduced that overrides . . . [certain kinds of] patient decision-making . . . (e.g. employers guiding provider choice based on systematic data).”).

57. Town et al., *supra* note 2, at 93S.

These three topics are compelling because they implicate physician financial incentives in three different ways:

- Fee regulation and P4P seeks to pick out and reward the efficacious, and encourage, through payment incentives, what is most worthwhile to patients.
- Self-referral laws follow an entirely different track: they seek to *discourage* market exchanges by denying payment (and imposing legal sanctions) where physician ownership or contracts act against the goals of government policy and patient interests.
- Antitrust and competition policy seeks to encourage physician markets to adopt structures that are efficient and avoid aggregation of professional power.

The aim here is a modest one: to identify a few areas in which the perspective of psychological and organizational research can help us understand how law's use of financial incentives and financial regulation of physicians does or does not work.

A. *Physician Fee Setting and Pay-for-Performance Incentives*

The most direct regulatory intervention in physicians' business affairs is the setting of physician fees for payment by government payors. Using the so-called resource based relative value scale (RBRVS), the Medicare program seeks to mimic market prices by setting fees that reflect the cost of providing those services. An important objective of that process is to come up with a "neutral" set of fees, that is, a fee schedule that does not encourage the provision of some services over others. In theory, neutral fees will compensate doctors according to the costs associated with each service, and thus create no artificial incentive for physicians to induce demand by preferring the more highly remunerated services.⁵⁸

To call this process a dismal, horrific failure would be an understatement. Fees have reflected nothing close to cost and consequently the payment schedule has encouraged the provision of better paying services over others and created numerous other distortions in the market. A host of technical and conceptual problems have plagued the RBRVS process.⁵⁹ Although attempts were made to control volume by various means, and later attempts to set by fiat

58. See McGuire, *supra* note 11, at 269 (characterizing the goal of RBRVS as "taking physician financial self-interest out of the picture").

59. Surveying economic and practical critiques of RBRVS, McGuire points out its failure to determine the actual level of fees (as opposed to relative values); its use of average instead of marginal costs; its deficiencies in making adjustments reflecting differences attributable to geography; and its neglect of differences attributable to market power and practice organization. *Id.* at 268.

an appropriate level of growth, administrative pricing has been entirely ineffective in controlling costs.⁶⁰ Ultimately, the RBRVS process has morphed into a politicized rate-making process driven by budgetary concerns, while the fees themselves have sent distorted economic signals to the market.⁶¹

Notwithstanding the deficiencies of the RBRVS system, administrative fee setting by the government will not soon disappear. Although Medicare and other government entities employ managed care organizations to some extent, traditional fee-for-service Medicare remains the option chosen by eighty percent of Medicare beneficiaries;⁶² moreover, the fees paid by Medicare are commonly used as a benchmark by other payors.⁶³ To be sure, given almost universal dissatisfaction with its sustainable growth rate methodology, the government will likely attempt to revamp its physician payment controls. Whether a mechanism is developed to restrain volume growth administratively or by establishing processes that replicate market incentives, it will still be necessary to determine appropriate fees and to predict physician responses to those regulatory initiatives.

The nation's experience with administered prices based on fees for service offers several insights into physician behavior. There is overwhelming evidence that physicians are highly responsive to economic incentives transmitted by government fee schedules.⁶⁴ Yet attempts to control overall costs by constructing "neutral" fees have, as we have seen, been unsuccessful. Distortions in payment by government fee schedules may result in physicians increasing volume of services (depending on income and substitution effects, in alternative services or in services reimbursed by other payers); may affect

60. The conversion factor used to translate relative fees into a physician fee schedule is subject to an annual update determined by a formula—called the sustainable growth rate (SGR)—set forth in the Balanced Budget Act of 1997. It ties physician payment updates to a number of factors, including growth in input costs, growth in Medicare Fee For Service (FFS) enrollment, and growth in the volume of physician services relative to growth in the national economy. For analysis and criticism of the SGR, see MEDICARE PAYMENT ADVISORY COMM'N, REPORT TO THE CONGRESS: MEDICARE PAYMENT POLICY 81–103 (2008) [hereinafter MEDPAC REPORT], available at http://www.medpac.gov/documents/Mar08_EntireReport.pdf.

61. Paul Ginsburg & Joy M. Grossman, *When Price Isn't Right: How Inadvertent Payment Incentives Drive Medicare Care*, 24 HEALTH AFF. W376, W377 (Web Exclusive, Aug. 9, 2005), available at <http://content.healthaffairs.org/cgi/reprint/hlthaff.w5.376v1>.

62. MEDPAC REPORT, *supra* note 60, at 243–74; see also KAISER FAMILY FOUNDATION, DATA SPOTLIGHT, MEDICARE PRIVATE FEE-FOR-SERVICE ENROLLMENT AS A SHARE OF THE TOTAL MEDICARE POPULATION, 2007, <http://www.kff.org/charts/060407.htm> (last visited Apr. 7, 2009) ("Eight in ten Medicare beneficiaries are in the traditional Fee-For-Service Medicare program.").

63. See MEDPAC REPORT, *supra* note 60, at 82.

64. See, e.g., Ginsburg & Grossman, *supra* note 61 (discussing how problems with fee-setting have resulted in undesirable behavior by physicians).

quality and effort; and can strongly influence physician labor markets.⁶⁵ It is likely that several proclivities identified by behavioral scientists contribute to this phenomenon. For example, particularly when operating under conditions of uncertainty, status quo bias tends to slow physicians' responses to price signals and undermines attempts to recalibrate prices or add inducements, such as P4P, to change behavior.⁶⁶ Likewise, evidence suggests that physicians in many circumstances are overoptimistic in making treatment decisions.⁶⁷ In the context of a care delivery environment that is both highly fragmented and lacks effective feedback regarding outcomes, this factor is likely to increase physician inducement of demand and undermine the efficiency of price regulation.

In addition, the effects of professional norms complicate the picture. Doctors, like other people, tend to follow social norms; moreover, owing to their training and socialization factors, professional norms have a powerful influence on behavior.⁶⁸ There are a number of explanations for the power and persistence of these factors, among them that following professional norms is simple, may provide some reassurance that decisions will not be challenged, and engenders approval among peers. The power of such "intrinsic rewards" help explain the results of the Wennberg research indicating that much medicine departs from evidence-based standards of best practice.⁶⁹

Peter Orszag, former Director of the Congressional Budget Office, recently underscored the importance of paying closer attention to behavioral economics and professional norms in formulating policy. Stressing the influence of

65. See MEDPAC REPORT, *supra* note 60, at 95.

66. See Richard G. Frank, *The Health Care Challenge: Some Perspectives from Behavioral Economics*, in WANTING IT ALL: THE CHALLENGE OF REFORMING THE U.S. HEALTH CARE SYSTEM 61, 66–67 (Jane Sneddon Little ed., 2007). Frank argues that P4P reforms will encounter "status quo bias" among physicians that "will likely attenuate any response relative to what one might expect from a 'purely' rational, money-oriented doctor," and therefore, "rewards needed to 'move practice' may be larger than expected." *Id.*

67. *Id.* at 67.

68. See generally CHARLES L. BOSK, FORGIVE AND REMEMBER: MANAGING MEDICAL FAILURE (2d ed. 2003) (classic study of how the medical profession uniquely detects, categorizes, and sanctions error).

69. As the Congressional Budget Office has recently observed:

[The wide variation in health care spending across the United States] probably reflects, at least in part, differences in norms of practice among doctors. Professional norms may differ by locality because local colleagues may have a disproportionate influence and because bias favoring the status quo may make norms slow to change in the face of new evidence.

Peter R. Orszag, Dir., Cong. Budget Office, Statement at the Health Reform Summit of the Committee on Finance of the United States Senate: Opportunities to Increase Efficiency in Health Care (June 16, 2008) (transcript at 6) [hereinafter Orszag Statement], available at <http://www.cbo.gov/ftpdocs/93xx/doc9384/06-16-HealthSummit.pdf>.

professional norms and custom, he suggests that “subtle actions might be more sustainable” than simple reliance by the government on price levels and cost controls.⁷⁰ This is a critical point, as the conventional tools relied upon by economists—generating more information about the relative effectiveness of medical treatments and changing the incentives for providers and consumers of health care—have not effectively counteracted the behavioral factors discussed above.⁷¹ That said, the pathway to altering norms and entrenched patterns of decisionmaking is far from clear. While there is certainly merit to what Orszag proposes—combining “comparative effectiveness research with aggressive promulgation of standards and changes in financial and other incentives”⁷²—one suspects far more needs to be done. Implementing changes in professional education, integrating the delivery system so as to afford greater opportunity for coordination and supervision are undoubtedly needed as well. But there is another side to this coin. Professional norms can serve as a counterweight to self-interested pricing behaviors. In many contexts, “shaming” of physicians has been a time-honored method of rebuke, and in some cases has proven more powerful than the threat of legal sanctions.⁷³

B. *Self-Referral and Fraud and Abuse Laws*

Federal and state anti-kickback and self-referral laws place restrictions on the financial relationships between physicians and other entities, generally prohibiting, among other things, doctors from owning or receiving remuneration from entities or facilities to which they make patient referrals.⁷⁴

70. *Id.*

71. As Orszag concludes, “Research suggests . . . that the merely providing information to physicians results in an ‘exceedingly modest behavioral response.’” *Id.* (transcript at 7) (quoting David E. Kanouse et al., *Dissemination of Effectiveness and Outcomes Research*, 34 HEALTH POL’Y 167–92 (1995)); see also, CONG. BUDGET OFFICE, RESEARCH ON THE COMPARATIVE EFFECTIVENESS OF MEDICAL TREATMENTS: ISSUES AND OPTIONS FOR AN EXPANDED FEDERAL ROLE (2007) (discussing the various factors that contribute to regional disparities of the treatments physicians use and their costs).

72. Orszag Statement, *supra* note 69, (transcript at 7).

73. See, e.g., Johnson, *supra* note 6, at 1019–21 & nn.240–44; see also BOSK, *supra* note 68.

74. The federal self-referral law (the so-called Stark Statute) prohibits physicians who have (or whose immediate family members have) a “financial relationship” with a provider from referring Medicare or Medicaid patients to that provider for “designated health services.” 42 U.S.C. § 1395nn (2000). The federal anti-kickback law similarly prohibits professionals, providers, or suppliers from “knowingly and willfully” paying or receiving, offering or soliciting “remuneration (including any kickback, bribe, or rebate) directly or indirectly, overtly or covertly, in cash or in kind” in return for referring a patient or for arranging or furnishing a service paid for by a federal health care program. 42 U.S.C. § 1320a–7b (2000). Both statutes are subject to numerous exceptions, or safe harbors, and to an extensive body of interpretive regulations, guidelines, and advisory opinions. See generally ALICE GOSFIELD, MEDICARE AND MEDICAID FRAUD AND ABUSE (2008).

These laws have generated considerable controversy and in some cases outright resistance among physicians in the form of noncompliance, persistent petitions for amendment and repeal, and the establishment of a bewilderingly complex assortment of regulatory loopholes. The core purposes of these laws are to prevent costly self-interested behavior by physicians and to preserve the physician-patient relationship by eliminating conflicts of interest. Critics claim these laws work against their very purposes: they prevent cost-effective cooperation between doctors and facilities and work against patients' desire for convenient access to services.⁷⁵ The problems self-referral law has encountered emanate from a paradigmatic tension between the core assumptions of economic regulation and the human dynamics of professional decisionmaking.

The behavioral perspective offers an appreciation of the multiple incentives, other than the economic, which operate in the self-referral context. As we have seen, there is no question but that economic self interest strongly influences physician choice as to treatments.⁷⁶ But our understanding of the factors that underlie those motivations is far from complete. Behavioral research provides at least suggestive evidence that myriad psychological and sociological factors drive physician attitudes regarding referrals.⁷⁷ A large body of scholarship demonstrates that physicians have a strong sense of ownership and investment in their patients.⁷⁸ Coupled with endowment effects, other cognitive biases, such as saliency and overconfidence, understanding the metabolism of referral decisions will likely require a far more complex account than a simple narrative focusing on economic motivation. Finally, social and professional norms may militate strongly against rules or arrangements perceived to interfere with physician autonomy.⁷⁹ This factor undoubtedly gives rise to resistance to organizations and rules that place what are seen as arbitrary and non-clinical limits on patient management. The net consequences where the foregoing tendencies are prominent are behaviors that may be resistant to regulatory law relying solely on economic incentives.

75. See, e.g., Timothy J. Aspinwall, *The Anti-Kickback Statute Standard(s) of Intent: The Case for a Rule of Reason Analysis*, 9 ANNALS HEALTH L. 155, 182 (2000).

76. See discussion *infra* Part IV.B.

77. See e.g., Clark C. Havighurst, *American Health Care and the Law—We Need to Talk!*, 19 HEALTH AFF. 84, 101 (noting that the law often takes a highly critical view of physician referral incentives, even when the referral is in the best interest of the patient).

78. See KATHRYN MONTGOMERY, HOW DOCTORS THINK 199–200 (2006).

79. Reviewing the literature on extrinsic rewards and professional socialization, Golden and Sloan conclude that “pay is only one kind of reward and physicians may consider other rewards . . . equally or more valuable.” Brian R. Golden & Frank A. Sloan, *Physician Pay for Performance: Alternative Perspectives*, in INCENTIVES AND CHOICE IN HEALTH CARE, *supra* note 11, at 289, 303–04.

Unpacking the social and psychological factors affecting preferences and choice would be of great help to health law and policy. Where these factors support economic disincentives to relinquish control, because they distort preferences and choice, the regulatory response may well require attention to medical education and socialization. Making preference and choice of referrals the subject of professional norms might add as a significant factor for reinforcing regulatory commands. To the extent behavioral factors are influenced by organizational arrangements, such as the composition and financial infrastructure of group practices, the policy response may be to promote (e.g., by payment policies or regulatory safe harbors) organizations that encourage arrangements that are less likely to foster such problems.⁸⁰

To be sure, finding the right mix of noneconomic and economic measures is far from easy. While some steps, such as redirection of professional norms and providing persuasive data regarding referrals and outcomes, may be helpful to reinforce economic rewards and penalties, there is a risk that such measures may operate at cross purposes. Some theoretical and empirical work suggests that after a certain level of “extrinsic rewards” (pay, vacation time, incentive bonuses) is reached, physicians may give equal or greater weight to “intrinsic rewards” (status, peer acceptance, satisfaction from performance of difficult tasks).⁸¹ The point is cogently illustrated by studies finding that paying physicians’ salaries diminished their professional and institutional commitments as they came to regard themselves as having more of a financial relationship to their patients and hospitals.⁸² The central lesson is that to effectively influence behavior (assure compliance, minimize repeated attempts to whittle the law away by lobbying for loopholes, reduce uncertainty), the law needs to adopt or encourage measures, financial and otherwise, that address the professional norms and psychological factors discussed.

C. Antitrust and Competition Policy

Competition policy in the eighties and nineties was predicated on a model that assumed the incentives of competition would cause physicians to form group practices or form joint ventures or networks that minimized cost and promoted efficient delivery of care. It did not work out that way. In most of the country, physicians remained in small practices or joined small single specialty groups; instead of joining integrated multispecialty practices or integrated delivery systems, the large majority of physicians joined multiple

80. See Town et al., *supra* note 2, at 104S–110S (discussing how physicians’ organizational structures affect regulatory and payment incentives).

81. Golden & Sloan, *supra* note 79, at 302.

82. *Id.*; Janet M. Dukerich et al., *Beauty Is in the Eye of the Beholder: The Impact of Organizational Identification, Identity, and Image on the Cooperative Behaviors of Physicians*, 47 ADMIN. SCI. Q. 507, 529 (2002).

preferred provider organizations (PPOs), which engaged in little integration.⁸³ In addition, despite their propensity to deliver more cost-effective care, health plans featuring capitated payments or other financial incentives did not gain traction in many regions of the country.⁸⁴ This lack of take-up confounded legal and regulatory policies, such as antitrust law enforcement, which were directed rather explicitly at encouraging the formation of risk-sharing networks and clinical integration at the delivery level.

The question for advocates of competition policy has been why seemingly cost-effective organizational and financing systems did not triumph in the marketplace. It seems clear now that a host of factors conspired to defeat the emergence of a fully realized managed competition model. Some argue that legislation adopted in response to abuses—the managed care backlash—undermined the most effective tools of managed care;⁸⁵ others note the failure to deliver lower costs in the market.⁸⁶ However, a more complete explanation of the failure of the managed care model requires an understanding of why seemingly powerful economic incentives proved insufficient to motivate significant integration among physicians and between physicians and hospitals.

Behavioral economics may help shed light on the puzzle. To begin with, various cognitive factors and norms may have acted as powerful counterweights to financial incentives created by emerging managed care plans. For example, most physicians are members of multiple health plans, and these plans vary significantly in their protocols and requirements for compensation and bonuses, utilization review, and other factors.⁸⁷ Physicians appear to adopt heuristics to deal with the complexity of complying with the requirements of multiple payers, and their treatment patterns may reflect the requirements of the overall mix of plans they participate in, rather than the requirements of the plan of each patient.⁸⁸ Research shows that physicians' therapeutic decisions tend to cluster around the protocols of their median insurance plan, which results in the same level of care for all patients,

83. Hoangmai H. Pham & Paul B. Ginsburg, *Unhealthy Trends: The Future of Physician Services*, 26 HEALTH AFF. 1586, 1589–90 (2007); see also Alain C. Enthoven & Laura A. Tollen, *Competition in Health Care: It Takes Systems to Pursue Quality and Efficiency*, 24 HEALTH AFF. W420, at W423 (Web Exclusive, Sept. 7, 2005), available at <http://content.healthaffairs.org/cgi/reprint/hlthaff.w5.420v1>.

84. See Pham & Ginsburg, *supra* note 83, at 1590.

85. See Peter D. Jacobson, *Who Killed Managed Care? A Policy Whodunnit*, 47 ST. LOUIS U. L.J. 365, 381–82 (2003).

86. *Id.* at 369.

87. See FRANK, *supra* note 5, at 211–12 (noting that physicians typically encounter fifteen or more compensation schemes and a similar number of drug formularies).

88. See Richard G. Frank & Richard J. Zeckhauser, *Custom-Made Versus Ready-to-Wear Treatments: Behavioral Propensities in Physicians' Choices*, 26 J. HEALTH ECON. 1101, 1108 (2007)

regardless of the relative generosity of any individual patient's plan.⁸⁹ In addition, professional norms tend to reinforce physicians' unwillingness to conform treatments to the requirements of each patient's plan. That is, norms of fairness and professional responsibility likely instill a sense of obligation to devote equal time and effort to similar cases regardless of specific plan requirements.⁹⁰

Also working against the emergence of the managed care model was the resistance of physicians to integrate into group practices.⁹¹ Physicians' unwillingness to abandon longstanding experience with autonomous practice likely reflects a status quo bias and a degree of risk aversion. Moreover, professional norms militating against "corporate practice of medicine" (though historically aimed at lay-control) likely reinforce many physicians' hesitancy to enter into new practice arrangements. Likewise, the move to taking on financial risk or employment by health systems constituted a sea change for many physicians. To be sure, the experience of full employment of physicians by hospitals proved to be less than a complete success. In a large number of cases hospitals found their investments in physician practices unprofitable, as salaried doctors appeared to change practice patterns, working with less intensity than expected. Though not rigorously studied, it would not be surprising to find that the changed norms and expectations encountered in the employment setting, coupled with long held professional norms, underlay the altered behavior of physicians once their practice was acquired.⁹²

CONCLUSION

Legal academics have for many years contrasted two paradigms of health care law and policy: a professional/scientific model and a market model. The professional model assumed that health markets were sufficiently distinct economically to warrant professional autonomy and limited government intervention into professional economic affairs. By contrast, the market-oriented model—which was ascendant in the late 1980s and 1990s—assumed away many unique features inherent in the purchase and sale of medical services; as a result much regulatory law overlooked market imperfections.

89. See *id.* at 1112–14; Sherry Glied & Joshua Graff Zivin, *How Do Doctors Behave When Some (but Not All) of Their Patients Are in Managed Care?*, 21 J. HEALTH ECON. 337, 352 (2002).

90. Frank, *supra* note 5, at 208, 212. See generally Daniel Kahneman et al., *Fairness as a Constraint on Profit Seeking: Entitlements in the Market*, 76 AM. ECON. REV. 728 (1986) (finding that considerations of fairness, or "perceptions of transactors' entitlements[,] affect the substantive outcomes of exchanges" and may prevent market equilibrium).

91. See Pham & Ginsburg, *supra* note 83, at 1590.

92. See Mary Chris Jaklevic, *Buying Doc Practices Often Leads to Red Ink: Hospitals Have Been Snapping Up Medical Groups, but Successfully Managing and Integrating Them Has Proved a Challenge*, MODERN HEALTHCARE, June 1996, at 39.

Today, perhaps by default, the market model remains salient, but its dominant position has been sharply questioned. Regulators and the legal establishment should seek to gain a greater understanding of how non-economic and behavioral factors influence physicians' economic decisions and channel this understanding to correct and improve market outcomes.

