

Expanded Rationality: From the Preferred to the Desirable, with Some Implications for Law

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Behavioural insights have moved economics beyond the standard model of a rational homo economicus. However, the field has thus far been unable to bring these disparate insights into a coherent theory that could meet George Stigler's criteria of a model that is general, tractable and sufficiently predictive.

Taking up this challenge, the author argues for an economic theory of "expanded rationality", defined by individual values. He links behavioural economists' understanding of non-standard preferences with insights from psychology, in particular the leading model of values by Shalom Schwartz. Defined as conceptions of the desirable, values guide the way individuals select actions, evaluate people and events, and explain or justify their actions and evaluations. Values thus may be seen as arguments in individuals' personal utility functions; they underlie the construction of preferences; and they provide reasons for reason-based choice. The theory expands the conception of rationality by incorporating a set of motivational goals that is richer than the standard depiction of self-interest, yet avoids the pitfalls of ad hocery and tautological definitions.

This theory entails direct implications for policy-makers and lawyers. With such a model, policy-makers can harness two features of value diversity—the structured model of values and societal variation in value priorities—to better understand and influence behaviour. Implications for the law include an account of the different positions in the debate over the objectives of the corporation (shareholder primacy vs. multiple constituency). The author also applies the model to the positive law on the issue, including the Supreme Court of Canada's recent decision in BCE v. 1976 Debentureholders.

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Introduction: Order in the House!

There used to be a time when economists scoffed at the idea that the standard economic model of rational behaviour may need to be replaced or at least heavily revamped. Granted, that model relies on assumptions that are patently unrealistic—most prominently, the assumption that individuals have the memory and computational skills necessary for engaging in the decision-making processes that the model implies. But a model is, after all, just a model—a stylized story about real people in the real world. Perfect realism must be sacrificed for the sake of parsimony. Milton Friedman famously argued that although the assumptions underlying economic theory should be appropriate to the particular problem being addressed, they need not capture exactly how economic actors really behave; it is sufficient that these actors behave *as if* they follow those assumptions—as if they maximize utility, as if they equate marginal revenue and marginal cost, and so forth.¹ A good model, noted

1. Milton Friedman, "The Methodology of Positive Economics" in *Essays in Positive Economics* (Chicago: University of Chicago Press, 1953) 5 at 30-35.

George Stigler, should be general, tractable, and sufficiently accurate in its predictions.²

That age of innocence is gone. Though there may be pockets of resistance here and there, it would be fair to say that mainstream economics has now recognized the need to assume how people really behave.³ If the model systematically fails Stigler's third requirement, there may be room for rethinking it.⁴ The obligatory citation here is to psychologist Daniel Kahneman's Nobel Prize-winning work with the late Amos Tversky, which shed light on that failure by showing that people approach identical decision problems differently depending on the context (specifically, in the domains of gains and losses).⁵ Kahneman and Tversky showed that context matters. This is in contrast to the standard expected utility theory, which assumes fixed preferences. The sheer number, variety, and robustness of behavioural deviations from the standard model are such that most economists no longer dismissively regard them as "quirks".⁶ Colin Camerer and George Loewenstein summarize:

All of the above findings suggest that preferences are not the predefined sets of indifference curves represented in microeconomics textbooks. They are often ill-defined, highly malleable, and dependent on the context in which they are elicited.⁷

2. George J. Stigler, "The Development of Utility Theory", I & II (1950) 58 J. Pol. Econ. 307 and 373, reprinted in George J. Stigler, *Essays in the History of Economics* (Chicago: University of Chicago Press, 1965) 307.

3. For influential surveys, see John Conlisk, "Why Bounded Rationality?" (1996) 34 J. Econ. Literature 669; Matthew Rabin, "Psychology and Economics" (1998) 36 J. Econ. Literature 11.

4. See Drew Fudenberg, "Advancing Beyond 'Advances in Behavioral Economics'" (2006) 44 J. Econ. Literature 694.

5. Daniel Kahneman & Amos Tversky, "Prospect Theory: Analysis of Decision under Risk" (1979) 47 *Econometrica* 263.

6. See Richard A. Posner, "Rational Choice, Behavioral Economics, and the Law" (1998) 50 *Stan. L. Rev.* 1551 at 1553-54.

7. Colin F. Camerer & George Loewenstein, "Behavioral Economics: Past, Present, Future" in Colin F. Camerer, George Loewenstein, & Matthew Rabin, *Advances in Behavioral Economics* (Princeton: Princeton University Press, 2004) 3 at 14.

In recent years, a new theme has been emerging in the discourse on behavioural economics—a call for a general theory. While researchers keep looking for new behavioural trees (and for new branches on familiar trees), economists now challenge their colleagues to identify the forest. Camerer and Loewenstein, in their introduction to an edited volume on advances in behavioural economics, are straightforward about this:

Most evidence that preferences are constructed comes from demonstrations that some feature that should not matter actually does. The way gambles are "framed" as gains and losses from a reference outcome, the composition of a choice set, and whether people choose among objects or value them separately, have all been shown to make a difference in expressed preference. *But admittedly, a list of a theory's failings is not an alternative theory. So far, a parsimonious alternative theory has not emerged to deal with all of these challenges to utility maximization.*⁸

Drew Fudenberg, in a review of that volume, similarly asserts:

The standard model of individual behavior does very well in terms of generality and tractability, but behavioral economics has helped highlight some areas where the standard model's predictions are sufficiently wide of the mark that changes are valuable. The challenge for the field is to generate more accurate predictions without sacrificing too much on the other two of Stigler's criteria . . . [U]nless the insights and stylized facts obtained so far are related to a small number of models of individual behavior, with some guidelines for when each model should be expected to apply, behavioral economics may remain a distinct field with its own methodology.⁹

This paper argues that individual values should be the cornerstone of new economic theories of individual behaviour. Values, defined as conceptions of the desirable, constitute people's motivational goals. They guide how individuals select actions, evaluate people and events, and explain or justify their actions and evaluations.¹⁰ Restated in

8. *Ibid.* at 15-16 [emphasis added].

9. Fudenberg, *supra* note 4 at 695-96. See also Wolfgang Pesendorfer, "Behavioral Economics Comes of Age: A Review Essay on Advances in Behavioral Economics" (2006) 44 J. Econ. Literature 712.

10. Clyde Kluckhohn, "Value and Value Orientations in the Theory of Action" in Talcott Parsons & Edward A. Shils, eds., *Toward a General Theory of Action* (New York:

economic terminology, values may be seen as arguments in individuals' personal utility functions. Values therefore underlie the construction of preferences. They provide reasons for reason-based choice.¹¹

Values, I argue, can define the framework for an economic theory of "expanded rationality". The theory expands the conception of rationality by incorporating a set of motivational goals that is richer than the standard depiction of self-interest and yet avoids ad hocery and tautological definitions. A theory of expanded rationality that draws on individual values would thus stand an excellent chance of meeting Stigler's three criteria: it would be general, it would be tractable and sufficiently parsimonious, and crucially, it would be more realistic than the standard model. It may account for many of the observed deviations from the standard account of self-utility maximization. Like the periodic table of the elements, such a theory could also suggest directions for further development of the concept of rationality. Finally, it could better illuminate policy debates. A values-based theory of expanded rationality thus entails direct implications for law.

This paper proceeds as follows. Part I takes a look at the state of rationality today in the economic literature in order to identify current gaps in our understanding of non-standard preferences. Part II presents central insights from the study of values in psychology and introduces the currently leading model of values by Shalom Schwartz. Part III connects economics and psychology by mapping major non-standard preferences onto value dimensions. Part IV demonstrates some implications of this approach for the law, using the debate over the objectives of the corporation as a case study.

Harper & Row, 1951) 383; Milton Rokeach, *The Nature of Human Values* (New York: Free Press, 1973); Shalom H. Schwartz, "Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries" (1992) 25 *Advances Experimental Soc. Psych.* 1.

11. I am alluding, of course, to Paul Slovic, "The Construction of Preference" (1995) 5 *American Psychologist* 364, and Eldar Shafir, Itamar Simonson & Amos Tversky, "Reason-based Choice" (1993) 49 *Cognition* 11.

I. Rationality Today: Challenging the Preferred

Questioning the validity of the standard model of rationality and its underlying assumptions has a long history. Matthias Klaes and Esther-Mirjam Sent have traced the roots of the bounded rationality concept to the mid-twentieth century, when Herbert Simon (in 1957) coined the term.¹² Simon and other scholars had earlier used such terms as “limited rationality” and “approximate rationality” to denote much the same phenomenon. By calling it “bounded rationality”, however, Simon sought to go beyond the truism that people are human. He used the concept to “designate rational choice that takes into account the cognitive limitations of the decision-maker—limitations of both knowledge and computational capacity.”¹³

A number of survey articles published during the last few years attest that this field has reached a new stage. It has grown to the point where “bounded rationality” and “behavioural economics” now denote closely related but often independent lines of work.¹⁴ More importantly, however, in addition to documenting ever more behavioural deviations from the predictions of the standard model and suggesting theoretical mechanisms that might generate these deviations, writers increasingly

12. Matthias Klaes & Esther-Mirjam Sent, “A Conceptual History of the Emergence of Bounded Rationality” (2005) 37 *Hist. Pol. Econ.* 27 at 30-33, citing Herbert Simon, *Models of Man, Social and Rational: Mathematical Essays on Rational Human Behavior in a Social Setting* (New York: Wiley, 1957). Terms like “limited intelligence” and “finite intelligence” appeared during second half of the 19th century, with the earliest documented appearance in 1840: Klaes & Sent, *ibid.* They were used to denote that some people or humans in general are not omniscient—an admittedly unexciting insight at this level of generality.

13. Herbert A. Simon, “Bounded Rationality”, in J. Eatwell *et al.*, eds., *The New Palgrave Dictionary of Economics*, vol. 1 (London: MacMillan Press, 1987) 266.

14. Glenn Ellison, “Bounded Rationality in Industrial Organization” in Richard Blundell, Whitney K. Newey, & Torsten Persson, eds., *Advances in Economics and Econometrics: Theory and Applications, Ninth World Congress* vol. 2 (New York: Cambridge University Press, 2006) 142 at 142 (“The terms ‘boundedly rational’ and ‘behavioral’ have been used by different groups of economists over the years to describe different styles of work.”); Fudenberg, *supra* note 4 at 694 (“It is hard to give a precise definition of bounded rationality, or to draw a sharp line between it and behavioral economics.”).

call for theorizing at a higher level of generality. Drew Fudenberg thus notes:

In principle, it would be nicer to derive these exogenous rules [of thumb] from a small set of fairly standard assumptions, and one might hope that behavioral economics could eventually do so. Even when a formal derivation isn't possible, one might feel the conjectured rule is more plausible if it can be shown to be rooted in psychological observations that apply more generally.¹⁵

“For the field to advance further,” Fudenberg argues, “it should devote more attention to the foundations of its models, and develop unified explanations for a wider range of phenomena.”¹⁶ Wolfgang Pesendorfer makes a similar point, though in a more critical tone, in highlighting the current fractured structure of behavioural economics.¹⁷ Colin Camerer concedes this, but is more hopeful: “The goal of behavioural economics is not just to create a list of anomalies. . . . Tremendous progress has been made in going from deviations and anomalies to general theories which are mathematical and can be applied to make fresh predictions.”¹⁸

Efforts toward more general theories have proceeded on several fronts. Here I consider three developments: (1) attempts to classify the numerous behavioural deviations from the standard model into broad categories of non-standard preferences; (2) attempts to identify processes that may systematically give rise to variance (instability) of preferences; (3) attempts to identify mechanisms that may engender boundedly rational behaviour (“behavioural behaviour”, so to speak). While I do not aspire to provide a full survey of each of these developments, I do

15. Fudenberg, *ibid.* at 704.

16. *Ibid.* at 694.

17. Pesendorfer, *supra* note 9 at 712-20 (“behavioral economics remains a discipline that is organized around the failures of standard economics . . . [t]he behavioral evidence can be the impetus for *small* changes of standard models that leave the basic structure of the theory intact.”).

18. Colin F. Camerer, “Behavioral Economics” in Richard Blundell, Whitney K. Newey, & Torsten Persson, eds., *Advances in Economics and Econometrics: Theory and Applications, Ninth World Congress*, vol. 2 (New York: Cambridge University Press, 2006) 181 at 191.

discuss them at some length in order to set the stage for the argument that follows.

A. Non-Standard Preferences

“Non-standard preferences” has become the standard term for the slew of well-documented departures from the preference profile underlying the standard model.¹⁹ Within this broad category, three or four types of non-standard preferences stand out: preferences about time, about risk, about ambiguity, and about other things. Not all commentators refer to the full set. Preference for ambiguity, or aversion to it, is the least-mentioned type.²⁰ This section reviews advances in the study of other-regarding preferences and of ambiguity as they are the most pertinent to a theory of values.

(i) Other-Regarding Preferences

A good deal has been written in the behavioural law and economics literature on possible legal implications of various behavioural biases (endowment, availability, etc.). However, the legal discourse has been primarily affected by progress in behavioural economic research on other-regarding preferences. For most legal scholars, *homo economicus*—that notorious expected-utility maximizing (straw) man—is first and foremost a keenly self-interested person and only secondly an exponentially time-discounting one. And this is perfectly understandable. The standard model of rationality is not merely a descriptive model; it is also a normative theory about how people

19. See e.g. Stefano Della Vigna, “Psychology and Economics: Evidence from the Field” (2009) 47 J. Econ. Literature 315.

20. See George F. Loewenstein & Ted O’Donoghue, “Animal Spirits: Affective and Deliberative Processes in Economic Behavior” (2005), online: Cornell People Pages <<http://people.cornell.edu/pages/edo1/will.pdf>> (time, risk and social preferences); Della Vigna, *ibid.* (time, risk and social preferences); Neil J. Smelser & Paul B. Baltes, eds., *International Encyclopedia of the Social & Behavioral Sciences* (Amsterdam: Elsevier 2001) *s.v.* “Behavioral Economics”; Camerer, *supra* note 18 (time, risk, ambiguity self-interest).

should behave if they are to be deemed rational (by the criteria of the theory itself, that is). As such, one could justifiably see the standard model as challenging other normative theories of behaviour based on morality and ethics, which are so central for the law.

A large body of evidence shows that people may incur substantial costs to systematically promote other people's interests or just "to make a point". A seminal study by Güth, Schmittberger and Schwarze,²¹ which introduced the Ultimatum game, was the harbinger of numerous laboratory experimental studies.²² Field evidence documenting similar patterns of behaviour is also accumulating.²³ To state it differently, people regularly seem to care about others in society, hence the use of the terms "social preferences" and "other-regarding preferences" to describe such motivations.²⁴ Specific other-regarding preferences have been identified and named: "fairness", "reciprocity", etc.²⁵

At the basis of this literature lies the general postulate that other people's utility enters into one's own utility function in a non-trivial way. In order to avoid ad hocery, economists need to suggest functional forms that represent the content, or the structure, of other-regarding preferences. Such models are necessary for deriving falsifiable hypotheses that can be tested empirically. Without such models it would be impossible to distinguish genuine other-regarding behaviour from mistakes and mis-measurements.

21. Werner Güth, Rolf Schmittberger & Bernd Schwarze, "An Experimental Analysis of Ultimatum Bargaining" (1982) 3 J. Econ. Behav. & Org. 367.

22. See Colin Camerer & Ernst Fehr, "When Does 'Economic Man' Dominate Social Behavior?" (2006) 311 Science 47; Matthew Rabin, "A Perspective on Psychology and Economics" (2002) 46 Eur. Econ. Rev. 657.

23. See Della Vigna, *supra* note 19.

24. Many economic discussions confusingly employ "social preferences" to denote "other-regarding preferences". This usage intermixes preferences of individuals with regard to other members of society with preferences of social groups. The latter type of preference is highly problematic from an economic theory perspective, if not utterly untenable. Yet this is not the case from the vantage point of psychology or other social sciences, even if one prefers not to ascribe faculties of choice, tastes and preferences to social groups. I therefore prefer the neutral term other-regarding preferences.

25. See e.g. Matthew Rabin, "Incorporating Fairness into Game Theory and Economics" (1993) 83 Am. Econ. Rev. 1281; Joyce Berg, John Dickhaut, & Kevin McCabe, "Trust, Reciprocity, and Social History" (1995) 10 Games & Econ. Behav. 122.

In a recent survey of other-regarding preferences (which he calls interdependent preferences), Joel Sobel argues that the notion of preferences should be expanded by relaxing the assumption of individual greed.²⁶ Sobel writes a simple general expression of individual utility that reflects this notion:

$$u_i(O(s); \alpha(s; \theta))$$

where θ describes personal characteristics; α is a parameter; $s = (s_1, \dots, s_n)$ is a strategy profile (such that individual i chooses s_i); and $O(s)$ denotes those generalized consumption goods whose production does not depend on θ and $\alpha(s; \theta)$. This formulation allows for an individual's utility to depend on outcomes that take interdependent utilities into account; it could also include elements that cannot be measured directly, such as a warm glow from giving.²⁷ The crucial variable in this expression is θ , which formalizes the idea that people differ in the utility they derive from different outcomes. Sobel further points out that θ may be interpreted as equivalent to the concept of "identity" in George Akerlof and Rachel Kranton's theory.²⁸ θ may comprise the variables that define identity in their model, such as one's assigned social categories, personal characteristics and social prescriptions, i.e. indications of appropriate behaviour in different situations.²⁹

Within this general framework, a common approach for demonstrating other-regarding preferences is to derive a utility function from intuitive principles and support it with consistent experimental

26. Joel Sobel, "Interdependent Preferences and Reciprocity" (2005) 43 J. Econ. Literature 392.

27. *Ibid.* See James Andreoni, "Impure Altruism and Donations to Public Goods: A Theory of Warm-Glow Giving" (1990) 100 Econ. J. 464; James Andreoni, "Privately Provided Public Goods in a Large Economy: The Limits of Altruism" (1988) 35 J. Pub. Econ. 57. See also Uzi Segal & Joel Sobel, "Tit for Tat: Foundations of Preferences for Reciprocity in Strategic Settings" (2007) 136 J. Econ. Theory 197.

28. George A. Akerlof & Rachel E. Kranton, "Economics and Identity" (2000) 115 Quarterly Journal of Economics 715. In fact, Sobel also notes that this general writing accommodates well both Akerlof and Karanton's approach to individual utility and the approach advocated by George J. Stigler & Gary S. Becker, "De Gustibus Non Est Disputandum" (1977) 67 Am. Econ. Rev. 76.

29. *Ibid.* Akerlof and Kranton's prescriptions parallel what we usually call social norms.

results.³⁰ Ernst Fehr and Klaus Schmidt advance a model featuring an aversion to less equal outcomes.³¹ In this model, people are willing to give up some material payoff to move in the direction of more equal outcomes.³² Gary Bolton and Axel Ockenfels offer a similar model of a preference for equality, in which a player compares her position to the average income of other players.³³ Gary Charness and Matthew Rabin conceptualize people's preference for fairness as consisting of two components (in addition to one's own utility).³⁴ The first component is a Rawlsian maximin concern for the least advantaged members of society; the second is a universalistic concern for the total income of all members of society, equally weighted. The latter component may be viewed as a preference for general efficiency or social welfare. A third component based on reciprocity is added to account for retaliatory actions.

Finally, in order to give meaning to other-regarding preferences, we need to specify who qualifies as a relevant "other" and in what circumstances. As Sobel notes:

In deciding how to apply these models [of interdependent preferences] to a contracting problem, one must decide whether preferences are defined over coworkers or just the parties to the contract. In deciding how to apply these models to the labor market, one must decide whether workers care about inequity across labor and management, across all workers, or only across workers in similar jobs.³⁵

30. For a detailed analysis see Ernst Fehr & Klaus M. Schmidt, "The Economics of Fairness, Reciprocity and Altruism - Experimental Evidence and New Theories" in Serge-Christophe Kolm & Jean Mercier Ythier, eds., *Handbook of the Economics of Giving, Altruism and Reciprocity* vol. 1 (Amsterdam: Elsevier, 2006) 615.

31. Ernst Fehr & Klaus Schmidt, "A Theory of Fairness, Competition and Cooperation" (1999) 114 Q.J. Econ. 817.

32. *Ibid.* Fehr and Schmidt refer to "inequity aversion". Since other literatures mentioned below distinguish equity from equality, we use the latter term here as it better captures Fehr and Schmidt's meaning.

33. Gary E. Bolton & Axel Ockenfels, "ERC: A Theory of Equity, Reciprocity, and Competition" (2000) 90 Am. Econ. Rev. 166.

34. Gary Charness & Matthew Rabin, "Understanding Social Preferences with Simple Tests" (2002) 117 Q.J. Econ. 817.

35. Sobel, *supra* note 26 at 401.

This issue is left undecided by the current literature.

(ii) Preferences Over the Unknown: Uncertainty/Ambiguity Aversion

Individuals' behaviour under uncertainty also exhibits systematic departures from the standard model of rational choice, although the standard accounts of behavioural economics discuss it less often.³⁶ The fundamental distinction between risk and uncertainty was drawn in 1921 by Frank Knight.³⁷ Knight defined uncertainty as the category of unknown events for which one has no estimate of the probabilities of their occurrence. Theoretical work addressing the Ellsberg Paradox indicates that people have an ambiguity aversion, also referred to as uncertainty aversion, which is different from risk aversion.³⁸ Ambiguity aversion means that, when asked to choose among risky outcomes, people ascribe lower utilities to those outcomes for which they do not know the probability associated with the risk. Empirical studies strongly confirm the existence of this aversion.³⁹

Itzhak Gilboa *et al.* recently advanced a distinction between objective and subjective rationality in connection with ambiguity.⁴⁰ What animates this model is the observation that in situations of ambiguity where the decision-maker cannot prioritize choices (Gilboa *et al.* call

36. See Camerer, *supra* note 18; See also Craig R. Fox & Amos Tversky, "Ambiguity Aversion and Comparative Ignorance" (1995) 110 Q.J. Econ. 585 at 587.

37. Frank H. Knight, *Risk, Uncertainty and Profit* (Chicago: University of Chicago Press, 1921) at 227.

38. See Daniel Ellsberg, "Risk, Ambiguity, and the Savage Axioms" (1961) 75 Q.J. Econ. 643. For further theoretical treatments, see e.g. Uzi Segal, "The Ellsberg Paradox and Risk Aversion: An Anticipated Utility Approach" (1987) 28 Int'l Econ. Rev. 175; David Schmeidler, "Subjective Probability and Expected Utility without Additivity" (1989) 57 *Econometrica* 571; Yoram Halevy & Vincent Feltkamp, "A Bayesian Approach to Uncertainty Aversion" (2005) 72 *Rev. Econ. Stud.* 449.

39. See e.g. Yoram Halevy, "Ellsberg Revisited: An Experimental Study" (2007) 75 *Econometrica* 503 (reviewing literature and providing evidence). For an early review of the literature, see Colin Camerer & Martin Weber, "Recent Developments in Modeling Preferences: Uncertainty and Ambiguity" (1992) 5 *J. Risk & Uncertainty* 325.

40. Itzhak Gilboa *et al.*, "Objective and Subjective Rationality in a Multiple Prior Model" (2008), working paper, online: Collegio Carlo Alberto <<http://www.carloalberto.org/files/no.73.pdf>>.

them f and g) in terms of their desirability for her, she often does eventually make a choice. These authors define a subjective preference relation:

Subjective preferences are rational in the subjective sense: . . . we mean to say that the decision-maker cannot be convinced that choosing f in the presence of g is wrong. Intuitively, such a choice does not lead to any contradiction with other choices of the decision-maker, and does not seem illogical given the decision-maker's goals and the data available to her.⁴¹

Gilboa *et al.* thus expand the notion of rationality by giving it an interpretation that focuses on the decision-maker's subjective vantage point. A decision-maker is subjectively rational if, after she has made a choice, she is not embarrassed when a third party (say, a consultant) points out to her that her decision is not in line with rational choice theory.⁴² Focusing on the subjective suggests that people will vary in their rationality attributes.⁴³ Research in psychology has found that people vary in their uncertainty/ambiguity aversion, depending on individual factors. Richard Sorrentino and his colleagues define uncertainty orientation as a factor of this type.⁴⁴ Recent work shows that individuals are more likely to exhibit ambiguity aversion the more they fear negative evaluation, but that social context—specifically, the likelihood of negative evaluation by others—also gives rise to ambiguity aversion.⁴⁵

Ambiguity aversion leads people to behave more conservatively. They are more likely to shun actions and decisions in situations where

41. *Ibid.* at 3.

42. *Ibid.* at 30-33.

43. *Ibid.* at 22 (the less intelligent will less often be embarrassed, which is to say they more often exhibit subjective rationality).

44. Richard M. Sorrentino & Christopher J. R. Rooney, *The Uncertain Mind: Individual Differences in Facing the Unknown* (Philadelphia: Psychology Press, 2000) 7; Richard M. Sorrentino & J.A.C. Short, "Uncertainty Orientation, Motivation, and Cognition" in Richard M. Sorrentino & E. Tory Higgins, eds., *The Handbook of Motivation and Cognition: Foundations of Social Behavior* (New York: Guilford Press, 1986) 379.

45. Stefan T. Trautmann, Ferdinand M. Vieider & Peter P. Wakker, "Causes of Ambiguity Aversion: Known Versus Unknown Preferences" (2008) 36 *J. Risk & Uncertainty* 225.

their state of knowledge is consistent with a relatively wide range of odds.⁴⁶ For example, an important outcome of ambiguity aversion is incomplete contracts.⁴⁷ Interestingly, Jean Tirole has associated contract incompleteness directly with bounded rationality, based on the insight that designing contractual covenants is cognitively costly.⁴⁸ But ambiguity aversion, or uncertainty aversion, goes beyond a supposedly rational response to costs, whether cognitive costs, transaction costs or others. Ambiguity aversion reflects a (negative) taste or preference for the unknowable; the ambiguous may be threatening, and had better be avoided.

B. Constructed Preferences

Another major challenge to the standard model of rational choice is posed by the discovery that individuals' preferences are context-contingent. Preferences are, in fact, constructed, rather than fixed, comprehensive and well-ranked. This section weaves together several points from the literature on constructed preferences. I pay particular attention to studies that seek more the deep-seated factors influencing preference construction.

Paul Slovic summarizes the ways in which people construct preferences:

Construction strategies include anchoring and adjustment, relying on the prominent dimension, eliminating common elements, discarding nonessential differences, restructuring the problem to create dominance and thus reduce conflicts and indecision. As a result of these mental gymnastics, decision making is a highly contingent form of information processing, sensitive to task complexity, time pressure, response mode, framing, reference points, and numerous other contextual factors.⁴⁹

46. Sujoy Mukerji, "A Survey of Some Applications of the Idea of Ambiguity Aversion in Economics" (2000) 24 *Int'l J. Approximate Reasoning* 221.

47. Sujoy Mukerji, "Ambiguity Aversion and Incompleteness of Contractual Form" (1998) 88 *Am. Econ. Rev.* 1207.

48. Jean Tirole, "Cognition and Incomplete Contracts" (2009) 99 *Am. Econ. Rev.* 265.

49. Slovic, *supra* note 11 at 369.

Gregory Fischer *et al.* found that the extent to which people focus on the prominent (most important or salient) attribute may depend on the task at hand, which underscores the importance of context.⁵⁰ On Amir and Jonathan Levav have recently shown that “preferences” could be merely “choices” in a particular context, and may change in different contexts.⁵¹ Dan Ariely, George Loewenstein, and Drazen Prelec took this insight to a fascinating extreme. They showed that one can manipulate even people’s basic judgments on whether a certain experience—e.g. listening to Ariely reciting from Walt Whitman’s “Leaves of Grass”—is good or bad and therefore deserves paying for or being paid for.⁵²

All this does not necessarily mean that preference construction is a rudderless process; it may yet have an underlying structure. That is, there could be factors which would systematically cause people to resort to such mental gymnastics or to use one exercise rather than another. Some of the strategies mentioned above may be employed simply to get a decision over and done with. Substantial literature indicates that having to make a decision on a difficult issue or under conditions of time pressure or physical inconvenience is an affectively negative experience. This triggers a need for cognitive closure, defined by Arie Kruglanski as “the desire for a definite answer on some topic, *any* answer as opposed to confusion and ambiguity.”⁵³ Achieving cognitive closure thus brings a positive affective reaction, and the threat of non-closure brings a negative affective reaction.⁵⁴

50. Gregory W. Fischer *et al.*, “Goal-based Construction of Preferences: Task Goals and the Prominence Effect” (1999) 45 *Management Sci.* 1057.

51. This is so even where the difference between contexts is normatively meaningless: On Amir & Jonathan Levav, “Choice Construction Versus Preference Construction: The Instability of Preferences Learned in Context” (2008) 45 *J. Marketing Res.* 145.

52. Dan Ariely, George Loewenstein & Drazen Pelec, “Tom Sawyer and the Construction of Value” (2006) 60 *J. Econ. Behav. & Org.* 1.

53. Arie W. Kruglanski, *Lay Epistemics and Human Knowledge: Cognitive and Motivational Bases* (New York: Plenum Press, 1989) at 14 (emphasis in original).

54. Lucia Mannetti *et al.*, “A Cross Cultural Study of the Need for Cognitive Closure Scale: Comparing Its Structure in Croatia, Italy, USA and The Netherlands” (2002) 41 *Brit. J. Soc. Psych.* 139 at 140.

Herbert Simon held a very broad view about the factors that give rise to bounded rationality. Already in his early writings, Simon pointed out that satisficing may be due not only to internal cognitive limitations but also to environmental factors, including the social environment.⁵⁵ Even with regard to internal factors, Simon was particularly interested in “those aspects of the totality that have relevance as the ‘life space’ of the organism considered. Hence, what we call the ‘environment’ will depend upon the ‘needs’, ‘drives’ or ‘goals’ of the organism, and upon its perceptual apparatus.”⁵⁶

The benefit of reaching a decision on the basis of a prominent dimension or of eliminating common elements may consist only of the time saved, the relief of having the decision over with, and the like. A special category of preference construction strategies involve deeper factors. These are reason-based choices. In this view, individuals seek reasons to justify their choices and to help explain them to others. The explanation could be relatively straightforward. To cite an example from an early study, when one alternative had the advantage of being superior on an important dimension but the disadvantage of being so inferior on a lesser dimension that the disadvantage cancelled out the advantage, people consistently selected the alternative that was superior on the more important dimension.⁵⁷ Much subsequent research has dealt with consumer choice,⁵⁸ but that line of research focuses less on normative issues and is therefore less relevant to this paper.

Eldar Shafir, Itamar Simonson and Amos Tversky advance a more general account of reason-based choice.⁵⁹ They first note that outside of economics, the study of decision-making uses a reason-based analysis,

55. Herbert A. Simon, “Theories of Decision-Making in Economics and Behavioral Science” (1959) 49 *Am. Econ. Rev.* 253 at 256.

56. Herbert A. Simon, “Rational Choice and the Structure of the Environment” (1956) 63 *Psychological Rev.* 129 at 130. Simon was referring to an organism like a rat (hence the internal quotation marks) but his analysis applies to human organisms as well).

57. Paul Slovic, “Choice between Equally Valued Alternatives” (1975) 1 *J. Experimental Psych: Human Perception and Performance* 280.

58. See e.g. Amos Tversky & Itamar Simonson, “Context-dependent Preferences” (1993) 39 *Management Science* 1179. This seminal paper by Tversky and Simonson dealt with tradeoffs between price and mileage of automobile tires.

59. Shafir *et al.*, *supra* note 11.

one which in their words “identifies various reasons and arguments that are purported to enter into and influence decision, and explains choice in terms of the balance of reasons for and against the various alternatives.”⁶⁰ Shafir *et al.* thus advocate a reason-based conception of choice as opposed to the traditional model which focuses on associating a numerical value to each alternative. The reason-based conception sees individuals as addressing difficult decisions—ones that involve conflict between several good options or conflicting reasons for competing options—by seeking reasons to decide in a particular way.⁶¹

On Amir and Dan Ariely take the reason-based approach one step further, arguing that when people make decisions, they consider not only their preferences for different alternatives but also guiding principles and behavioural rules.⁶² Amir and Ariely contend that instead of engaging in extensive cost-benefit analyses, people often apply rules—binary, over-generalized, culturally specific and non-reflexive principles. Following legal philosopher Joseph Raz’s conception of rules,⁶³ Amir and Ariely highlight their rigid, non-reflexive character. At the same time, those authors argue that people follow “‘rationales’—metarules or principles—even when the conditions are such that, on occasion, following the rule might lead to preference-action inconsistencies and, consequently, to the selection of less-preferred outcomes” (where “preferences” refers to hedonic ordering according to the standard model).⁶⁴ Interestingly, in one of their experiments, Amir and Ariely find a typical dual-process result: when a rule is invoked, people follow it without much deliberation; but if instructed to pay more attention to the problem at hand, they may override the rule.

60. *Ibid.* at 12.

61. Although Shafir *et al.*’s examples also discuss consumer choice examples (e.g., between two vacation deals, two models of CD players, etc.) their analytical framework is cast in more general terms.

62. On Amir & Dan Ariely, “Decisions by Rules: The Case of Unwillingness to Pay for Beneficial Delays” (2007) 44 *J. Marketing Res.* 142. Once again, these authors consider typical consumer choices—this time, paying for delayed delivery of a service (a concert)—in a more general framework.

63. J. Raz, “*Reasons for Action, Decisions and Norms*” (1975) 84 *Mind* 481 at 497.

64. Amir & Ariely, *supra* note 62 at 143.

According to Amir and Ariely, rules are usually more general than the reasons referred to by Shafir, Simonson and Tversky. Rules can supply reasons, though “reasons seldom become rules”.⁶⁵ Rules are also unlike the heuristics employed by Kahneman and Fredrick,⁶⁶ in that rules do not describe a computational approach that is meant to simplify decisions but are intended instead to enforce certain conventions. Most importantly, Amir and Ariely relate rules to social norms as described by Cialdini and Trost.⁶⁷ Norms may be seen as sitting higher in the hierarchy: rules “may be derived from norms and principles, but unlike some principles, rules bear clear prescriptions for action in the specified conditions.”⁶⁸

Claire Hill proposes the notion of narratives as organizing elements for preference construction.⁶⁹ Narratives are formulaic decision rules that are useful where the decision is not very consequential, in which case they offer quick answers.⁷⁰ Narratives thus define when and how to satisfice. According to Hill, narratives are somewhat like Shafir *et al.*'s reasons: narratives provide reasons, but narratives also help people organize their world views; and narratives may be affected by one's culture and identity.⁷¹

Finally, in a recent conceptual paper that also deals with hierarchies of motivations, Stanovich defines a Master Rationality Motive (MRM) as a distinctive thinking disposition at a high level of generality. The MRM is the “motive that drives the search for rational integration across our preference hierarchies.”⁷² The MRM, argues Stanovich, is the “desire to act in accordance with reasons, a desire that produces behavior, in your

65. *Ibid.* at 150.

66. See below, text accompanying note 77 *et seq.*

67. See Robert B. Cialdini & Melanie R. Trost, “Social Influence: Social Norms, Conformity, and Compliance” in Daniel T. Gilbert, Susan R. Fiske & Gardner Lindzey, eds., *The Handbook of Social Psychology* (New York: Oxford University Press, 1998) 151.

68. Amir & Ariely, *supra* note 62 at 151.

69. Claire A. Hill, “The Rationality of Preference Construction (and the Irrationality of Rational Choice)” (2008) 9 *Minn. J. L. Sci. & Tech.* 689.

70. *Ibid.* at 696.

71. *Ibid.* at 721-22.

72. Keith E. Stanovich, “Higher-Order Preferences and the Master Rationality Motive” (2008) 14 *Thinking & Reasoning* 111 at 119.

name, by adding its motivational force to that of whichever motives appear to provide the strongest reasons for acting.”⁷³ The MRM does not refer to how well people satisfy the choice axioms of utility theory or Bayesian belief updating—what has been called a “thin theory of rationality.” Rather, the MRM refers to a “broad theory of rationality” that encompasses self-criticism of one’s own desires and beliefs.

C. Dual-Process Attribute Substitution

In advancing dual process theories of economic behaviour, several economists connect two large streams of research, from psychology and economics respectively. Dual-process accounts of cognition and behaviour have mushroomed in cognitive and social psychology.⁷⁴ These theories share the idea that there are two different modes of thinking, reasoning, decision-making and social judgment. Authors have used different labels, such as the mundane System 1 and System 2 coined by Keith Stanovich and Richard West, to distinguish between such modes in different contexts.⁷⁵ System 1 is responsible for processes that are unconscious, rapid, automatic, effortless, and high capacity, System 2 for processes that are conscious, slow, effortful and deliberative. In addition to modes of processing, psychologists have distinguished between the two systems in terms of their evolutionary track, the functional characteristics they exhibit, and additional features of individual

73. *Ibid.*, citing J. David Velleman, “What Happens When Someone Acts?” 101 *Mind* 461 at 479.

74. The following draws on Jonathan St. B. T. Evans, “Dual-Processing Accounts of Reasoning, Judgment, and Social Cognition” (2008) 59 *Ann. Rev. Psych.* 255. See generally Shelly Chaiken & Yaacov Trope, eds., *Dual-Process Theories in Social Psychology* (New York: Guilford Press, 1999); Robin M. Hogarth, *Educating Intuition* (Chicago: University of Chicago Press, 2001).

75. Evans documents no less than 14 pairs of labels. *Ibid.* at Table 1. Keith E. Stanovich & Richard F. West, “Discrepancies Between Normative and Descriptive Models of Decision Making and the Understanding/Acceptance Principle” (1999) 38 *Cognitive Psych.* 349; Keith E. Stanovich & Richard F. West, “Individual Differences in Reasoning: Implications for the Rationality Debate?”, in Thomas Gilovich, Dale Griffin & Daniel Kahneman, eds., *Heuristics and Biases: The Psychology of Intuitive Judgment* (Cambridge: Cambridge University Press, 2002) 421.

differences associated with the two systems (e.g., whether they are linked to general intelligence).⁷⁶

In his Nobel Prize lecture, Kahneman leveraged the System 1/System 2 framework to advance a general theory of attribute substitution, relating it to much of the earlier research on biases and heuristics by himself and Tversky and by others.⁷⁷ “The essence of attribute substitution,” Kahneman argues, “is that respondents offer a reasonable answer to a question that they have not been asked.”⁷⁸ In a generic process of attribute substitution, the individual assesses a particular (target) attribute of a judgment object by relying on a related attribute that comes to mind more readily.⁷⁹ System 1 is said to engender attribute substitution automatically and effortlessly. System 2 allows one to consider several answers and to think incompatible thoughts about the same thing. However, System 2 sometimes fails to intervene to correct the assessments of System 1, leading to biased judgments. System 2 is sensitive to time pressure, task load and mood, and its operation is positively correlated with intelligence.⁸⁰

Economists have seized upon the dual-process model with enthusiasm. Several models focus on inter-temporal issues such as time inconsistencies, addiction and procrastination.⁸¹ George Loewenstein

76. See Evans, *ibid.* at Table 2.

77. Fittingly, Kahneman’s Nobel Prize lecture appeared in two close versions: Daniel Kahneman, “Maps of Bounded Rationality: A Perspective on Intuitive Judgment and Choice” (2003) 56 *Am. Psychologist* 697 (Kahneman, “Maps of Bounded Rationality”); Daniel Kahneman, “Maps of Bounded Rationality: Psychology for Behavioral Economics” (2003) 93 *Am. Econ. Rev.* 1449. Kahneman’s theory draws on Daniel Kahneman & Shane Frederick, “Representativeness Revisited: Attribute Substitution in Intuitive Judgment” in Thomas Gilovich, Dale Griffin, & Daniel Kahneman, eds., *Heuristics and Biases: The Psychology of Intuitive Judgment* (Cambridge: Cambridge University Press, 2002) 49.

78. Kahneman, “Maps of Bounded Rationality”, *ibid.* at 709.

79. *Ibid.* at 705.

80. *Ibid.* at 709; Evans, *supra* note 74 at 264 (collecting references).

81. See Drew Fudenberg & David K. Levine, “A Dual Self Model of Impulse Control” (2006) 96 *Am. Econ. Rev.* 1449 (a model of dual self, or dual subsystems, featuring a set of short-run impulsive, myopic selves and a long-run patient self); Douglas B. Bernheim & Antonio Rangel, “Addiction and Cue-Triggered Decision Processes” (2004) 94 *Am. Econ. Rev.* 1558 (a dual system model of addiction in which the individual may enter a “hot”

and Ted O'Donoghue present a more capacious affective/deliberative dual system model.⁸² With respect to time and risk preferences, this model also applies to other-regarding preferences. In time preferences, the deliberative system in this model cares about both short-term and long-term payoffs; the affective system is driven by short-term payoffs. With respect to risk preferences, the deliberative system corresponds roughly to expected-utility theory; the affective system is more sensitive to outcomes than to probabilities. With respect to other-regarding preferences, the deliberative system in this model is driven by moral and ethical principles; the affective system is driven by the degree of empathy that is triggered, and can point to any behaviour between pure self-interest and extreme altruism.⁸³

decision-making mode and may also operate in a “cold” mode, where he considers all alternatives and contemplates all consequences in line with the standard model); Isabelle Brocas & Juan D. Carrillo, “The Brain as a Hierarchical Organization” (2008) 98 *Am. Econ. Rev.* 1312 (arguing that a dual-system model of the brain may explain impatience with regard to consumption and labor); Jess Benhabib & Alberto Bisin, “Modeling Internal Commitment Mechanisms and Self-Control: A Neuroeconomics Approach to Consumption-Saving Decisions” (2005) 52 *Games & Econ. Behav.* 460 (describing individuals that can invoke automatic processes that are susceptible to impulses or temptations or control processes which are immune to such temptations). For early contributions see Richard H. Thaler & Hershey M. Shefrin, “An Economic Theory of Self-Control” (1981) 89 *Journal of Political Economy* 392; Hershey M. Shefrin & Richard H. Thaler, “The Behavioral Life-Cycle Hypothesis” (1988) 26 *Econ. Inquiry* 609.

82. Loewenstein & O'Donoghue, *supra* note 20.

83. Arguments based (to varying degrees) on dual-system processes have now begun to appear in the legal literature. See e.g. Christine Jolls & Cass R. Sunstein, “The Law of Implicit Bias” (2006) 94 *Cal. L. Rev.* 969; Chris Guthrie, Jeffrey J. Rachlinski & Andrew J. Wistrich, “Blinking On The Bench: How Judges Decide Cases” (2007) 93 *Cornell L. Rev.* 1; Paul H. Robinson & John M. Darley, “Intuitions of Justice: Implications for Criminal Law and Justice Policy” (2007) 81 *S. Cal. L. Rev.* 1; Alan Schwartz, “How Much Irrationality Does the Market Permit?” (2008) 37 *J. Legal Stud.* 131.

II. Values: Enter the Desirable

For several decades, a research program in social psychology has developed and refined theories on individual values. Although economists and law and economics scholars can no longer be accused of being inattentive to psychology, this branch of psychological research has been virtually overlooked, despite its considerable potential. This part therefore presents in some detail the currently dominant theory by Shalom Schwartz.⁸⁴

A. *The Nature of Values*

According to Schwartz, a consensus has emerged among many social scientists on how to conceptualize basic values. This conceptualization includes six main features:

1. **Values are beliefs that are linked inextricably to affect.** When values are activated, they become infused with feeling. People for whom independence is an important value become aroused if their independence is threatened, despair when they are helpless to protect it, and are happy when they can enjoy it.
2. **Values refer to desirable goals that motivate action.** People for whom social order, justice, and helpfulness are important values are motivated to promote these goals.
3. **Values transcend specific actions and situations.** Obedience and honesty, for example, are values that may be relevant at work or in school, in sports, business, and politics, with family, friends, or

84. The following draws liberally on Shalom H. Schwartz, "Value Orientations: Measurement, Antecedents and Consequences Across Nations" in Roger Jowell *et al.*, eds., *Measuring Attitudes Cross-Nationally: Lessons from the European Social Survey* (London: Sage Publications, 2007) 169. For good reviews, see Steven Hitlin & Jane Allyn Piliavin, "Values: Reviving a Dormant Concept" (2004) 30 *Ann. Rev. Soc.* 359; Meg J. Rohan, "A Rose by Any Name? The Values Construct" (2000) 4 *Personality & Soc. Psych. Rev.* 255; Peter B. Smith, Michael Harris Bond, & Cigdem Kagitcibasi, "Improving the Validity of Cross-Cultural Psychology" in *Understanding Social Psychology Across Cultures: Living and Working with Others in a Changing World* (London: Sage Publications, 2006) 12.

strangers. This feature distinguishes values from narrower concepts like norms and attitudes that usually refer to specific actions, objects, or situations.

4. **Values serve as standards or criteria.** Values guide the selection or evaluation of actions, policies, people, and events. People decide what is good or bad, justified or illegitimate, worth doing or avoiding, by considering the effects on attaining their cherished values.

5. **Values are ordered by importance relative to one another.** The ordered set of values forms a system of value priorities. Societies and individuals can be characterised by their systems of value priorities. Do people attribute more importance to the achievement or justice, to novelty or to tradition? This hierarchical feature also distinguishes values from norms and attitudes.

6. **The relative importance of multiple values guides action.** Any attitude or behaviour typically has implications for more than one value. For example, attending church might express and promote tradition, conformity, and security values for a person at the expense of hedonism and stimulation values. The trade-off among relevant, competing values is what guides attitudes and behaviours. Values contribute to action to the extent that they are relevant in the context (hence likely to be activated) and important to the actor.⁸⁵

In 1973, Milton Rokeach revived the study of values by providing a clear definition of them as guiding principles in life, and proposed a list of values that was meant to be universal and comprehensive.⁸⁶ Shalom Schwartz and Wolfgang Bilsky analyzed cross-national data based on a survey instrument developed by Rokeach, and they confirmed the existence of certain value types in each country.⁸⁷ Later, Schwartz

85. Schwartz, *ibid.* at 171 (citations omitted).

86. Rokeach, *supra* note 10.

87. See Shalom H. Schwartz & Wolfgang Bilsky, "Toward a Universal Psychological Structure of Human Values" (1987) 53 *J. Personality & Soc. Psych.* 550; Shalom H. Schwartz & Wolfgang Bilsky, "Toward a Theory of the Universal Content and Structure of Values: Extensions and Cross-Cultural Replications" (1990) 58 *J. Personality & Soc. Psych.* 878.

advanced a comprehensive theory of individual-level values that represent universal requirements of human existence—namely, biological needs, coordination of social interaction and group functioning—as motivational goals.⁸⁸ Schwartz extended the Rokeach value inventory with values drawn from other cultures, including Asian and African cultures. Table 1 provides definitions of the ten value types distinguished by Schwartz and some of the value items that reflect them.

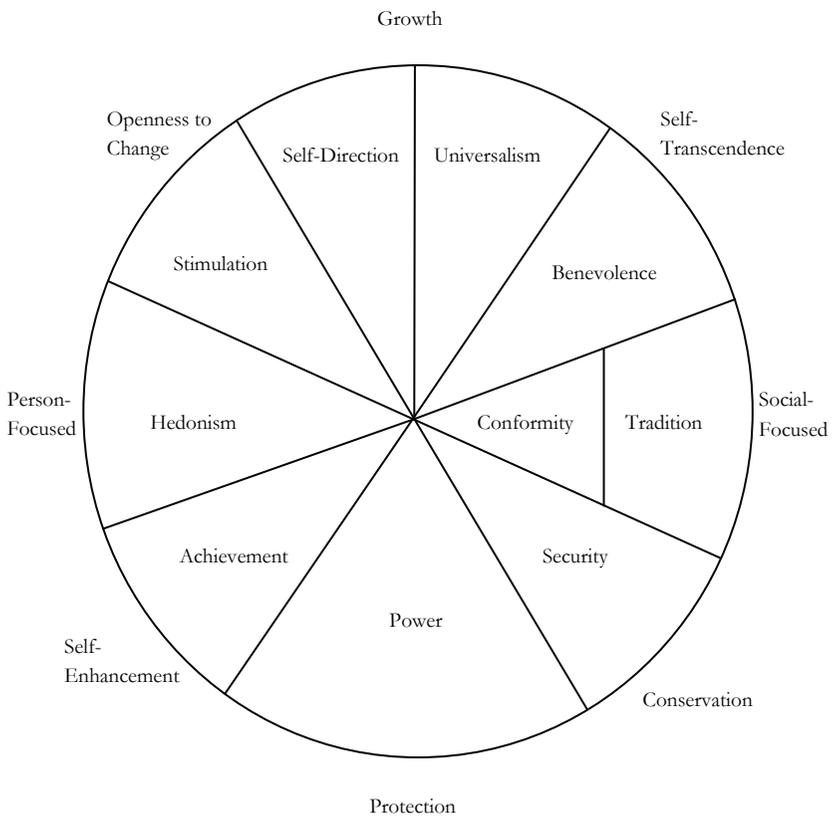
Table 1: The Schwartz Individual Value Types and Values that Represent Them

Self-Direction	Independent thought and action-choosing, creating, exploring (creativity, freedom, independent, curious, choosing own goals)
Stimulation	Excitement, novelty and challenge in life (daring, a varied life, an exciting life)
Hedonism	Pleasure and sensuous gratification for oneself (pleasure, enjoying life)
Achievement	Personal success through demonstrating competence according to social standards (successful, capable, ambitious, influential)
Power	Social status and prestige, control or dominance over people and resources (social power, authority, wealth)
Security	Safety, harmony and stability of society, of relationships and of self (family security, national security, social order, clean, reciprocation of favours)
Conformity	Restraint of actions, inclinations and impulses likely to upset or harm others and violate social expectations or norms (self-discipline, obedience, politeness, honouring parents and elders)
Tradition	Respect, commitment and acceptance of the customs and ideas that traditional culture or religion provide (accepting my portion in life, humble, devout, respect for tradition, moderate)
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact (helpful, honest, forgiving, loyal, responsible)
Universalism	Understanding, appreciation, tolerance and protection for the welfare of all people and for nature (broadminded, wisdom, social justice, equality, a world at peace, a world of beauty, unity with nature, protecting the environment)

88. See Schwartz, *supra* note 10; Shalom H. Schwartz, “Are There Universal Aspects in the Content and Structure of Values?” (1994) 50 J. Soc. Issues 19.

An important feature of the Schwartz theory is the structural interrelations among value types. These value types can be drawn as segments of a circle, as in Figure 1. Adjacent value types are conceptually close to one another, whereas opposing types express conceptually opposed goals in life. Thus, individuals who put a high emphasis on values of universalism (social justice, equality, etc.) would also tend to emphasize benevolence values (helpfulness, honesty, etc.), and would tend to de-emphasize values of opposing types (e.g., achievement, power).

Figure 1: The Structure of Relations among Individual Values



The relationships between the ten values can be summarized in two basic conflicts: self-enhancement versus self-transcendence, and openness to change versus conservation. Self-enhancement values focus on self-interests through the pursuit of control over people and resources (power) and the pursuit of competence and success (achievement). These values conflict with self-transcendence values that reflect concern for close others (benevolence) and for all people and nature (universalism). Openness to change values reflect openness to what is new: excitement and novelty (stimulation), and autonomy of thought and action (self-direction). These values conflict with conservation values, which reflect a strong preference for preserving the status quo through a commitment to past beliefs and customs (tradition), adherence to social norms and expectations (conformity), and stability for self and close others (security). Hedonism values share elements of both openness to change and self-enhancement.

More recently, Schwartz proposed an alternative two-dimensional structure.⁸⁹ It groups values into those that regulate the expression of personal characteristics and interests (person-focused: self-direction, stimulation, hedonism, achievement and power) and those that regulate relations with others and effects on them (social-focused: universalism, benevolence, tradition, conformity and security). Simultaneously, Schwartz's structure divides values into those that express anxiety-free self-expansion (growth values: self-direction, universalism, benevolence, stimulation and hedonism) and those that express anxiety-based self-protection (protection values: security, power, achievement, conformity and tradition).

The ten basic values are intended to include all of the core values recognized in cultures around the world. Analyses of numerous samples from scores of countries support the identification of the ten basic values

89. Shalom H. Schwartz, "Les valeurs de base de la personne: théorie, mesures et applications" (2006) 47 *Revue française de sociologie* 929 (English version on file with author); Shalom H. Schwartz, "Basic Values: How They Motivate and Inhibit Prosocial Behavior" in Mario Mikulincer & Phillip R. Shaver, eds., *Prosocial Motives, Emotions, and Behavior: The Better Angels of Our Nature* (Washington: American Psychological Association, forthcoming), draft available online: <<http://portal.idc.ac.il/en/Symposium/HerzliyaSymposium/Documents/dcSchwartz.pdf>> [Schwartz, "Basic Values"].

and also support the two-dimensional structure. This indicates that the model provides an excellent representation of the average individual value structure across cultures.⁹⁰

B. Values, Behaviour and Other Factors

A number of studies link value priorities to behaviour and to social roles. In particular, value priorities correlate with people's daily behaviours.⁹¹ Individuals tend to vote for political parties whose agendas reflect their values.⁹² The values that people hold dear are compatible with their vocational interests⁹³ and with their choices between entrepreneurial self-employment and salaried jobs.⁹⁴ Several studies link value priorities with consumption choices and behaviours that are more environmentally sensitive.⁹⁵ Differences in value priorities distinguish

90. See Shalom H. Schwartz, "Evaluating the Structure of Human Values with Confirmatory Factor Analysis" (2004) 38 *J. Res. Personality* 90 (analyzing 210 samples from 67 countries); Johnny R.J. Fontaine *et al.*, "Structural Equivalence of the Values Domain Across Cultures: Distinguishing Sampling Fluctuations from Meaningful Variation" (2008) 39 *J. Cross-Cultural Psych.* 345.

91. Anat Bardi & Shalom H. Schwartz, "Values and Behavior: Strength and Structure of Relations" (2003) 29 *Personality & Soc. Psych. Bull.* 1207.

92. See Shalom H. Schwartz, "Value Priorities and Behavior: Applying a Theory of Integrated Value Systems" in Clive Seligman, James M. Olson & Mark P. Zanna, eds., *The Psychology of Values: The Ontario Symposium*, vol. 8 (Mahwah, N.J.: L. Erlbaum Associates, 1996) 1 [Schwartz, "Value Priorities and Behavior"]; Marina Barnea & Shalom H. Schwartz, "Values and Voting" (1998) 19 *Pol. Psych.* 17; Gian Vittorio Caprara *et al.*, "Personality and Politics: Values, Traits, and Political Choice" (2006) 27 *Pol. Psych.* 1.

93. Lilach Sagiv, "Vocational Interests and Basic Values" (2002) 10 *J. Career Assessment* 233.

94. Florian Noseleit, "The Entrepreneurial Culture: Guiding Principles of the Self-Employed" in Andreas Freytag & Roy Thurik, eds., *Entrepreneurship and Culture* (Springer, forthcoming in 2010). On the link between value acquisition in the family and career choices see Steven Hitlin, "Parental Influences on Children's Values and Aspirations: Bridging Two Theories of Social Class and Socialization" (2006) 49 *Sociological Perspectives* 25.

95. See Suzanne C. Grunert & Hans Jørn Juhl, "Values, Environmental Attitudes, and Buying of Organic Foods," (1995) 16 *J. Econ. Psych.* 39; John Thøgersen & Folke Ölander, "Human Values and the Emergence of a Sustainable Consumption Pattern: A Panel Study" (2002) 23 *J. Econ. Psych.* 605; Annika M. Nordlund & Jörgen Garvill, "Values Structures Behind Proenvironmental Behavior" (2002) 34 *Environment & Behav.*

economics students from students in other fields,⁹⁶ and also distinguish board members and CEOs from the general population.⁹⁷ All of these studies are merely correlative, however; they do not show that values actually cause people to behave in a conceptually compatible way.

The path from values to behaviour involves several processes. Schwartz postulates four sequential processes. First, values must be activated. Second, as a source of motivation, values induce valences on possible actions: actions become more valued subjectively to the extent that they promote attainment of valued goals. Third, values influence attention, perception and interpretation within situations. Fourth, values, when activated, influence the planning of action.⁹⁸ In an important study, Bas Verplanken and Rob Holland primed words relevant to the environment (e.g., earth, nature) in one task.⁹⁹ Later, students for whom environmental values were central to their self-concept made more environmentally friendly choices. This study shows that activating values *causes* behaviour. Several other factors may be involved in mediating or moderating the causal link from values to action.¹⁰⁰

740. See also Judith I. M. de Groot & Linda Steg, "Value Orientations to Explain Beliefs Related to Environmental Significant Behavior: How to Measure Egoistic, Altruistic, and Biospheric Value Orientations" (2008) 40 *Environment & Behav.* 330.

96. Neil Gandal *et al.*, "Personal Value Priorities of Economists" (2005) 58 *Human Relations* 1227. This pattern is apparent at the beginning of the first year of study and persists throughout the degree, suggesting that value differences may be linked to the choice of the field of study.

97. Renee B. Adams, Amir N. Licht & Lilach Sagiv, "Shareholderism: Board Members' Values and the Shareholder-Stakeholder Dilemma" ECGI - Finance Working Paper No. 204/2008, online: Social Science Research Network <<http://ssrn.com/abstract=1118664>>. See Part V.A below for further discussion.

98. Shalom H. Schwartz "Robustness and Fruitfulness of a Theory of Universals in Individual Human Values" in A. Tamayo & J. Porto, eds., *Valores e Trabalho* [Values and Work] (Brasilia: Editora Universidade de Brasilia, 2003).

99. Bas Verplanken & Rob W. Holland, "Motivated Decision Making: Effects of Activation and Self-Centrality of Values on Choices and Behavior" (2002) 82 *J. Personality & Soc. Psych.* 434.

100. See e.g. Connie M. Kristiansen and Alan M. Hotte, "Morality and the Self: Implications for the When and How of Value-Attitude-Behavior Relations" in Seligman, Olson, & Zanna, eds., *supra* note 92, 77; Gregory R. Maio *et al.*, "Addressing Discrepancies between Values and Behavior: The Motivating Effect of Reasons" (2001) 37

Finally, it is worth emphasizing that values relate systematically not only to behaviour but also to a set of fundamental psychological factors. Values thus have been conceptualized as the core of personal identity.¹⁰¹ Value priorities are associated with personality traits according to the Big Five model.¹⁰² Value priorities correlate systematically with the need for cognitive closure¹⁰³ and (modestly) with individual social axiom beliefs.¹⁰⁴

J. Experimental Soc. Psych. 104; Gregory R. Maio *et al.*, "Ideologies, Values, Attitudes, and Behavior" in John Delamater eds., *Handbook of Social Psychology* (New York: Kluwer Academic/Plenum Publishers, 2003) 283; Jan-Erik Lönnqvist *et al.*, "Conformism Moderates the Relations between Values, Anticipated Regret, and Behavior" (2006) 32 *Personality & Soc. Psych. Bull.* 1469; Christopher J. Cohrs *et al.*, "Determinants of Human Rights Attitudes and Behavior: A Comparison and Integration of Psychological Perspectives" (2007) 28 *Pol. Psych.* 441; Gian V. Caprara & Patrizia Steca, "Prosocial Agency: The Contribution of Values and Self-Efficacy Beliefs to Prosocial Behavior Across Ages" (2007) 26 *J. Soc. & Clinical Psych.* 218; Johan C. Karremans, "Considering Reasons for a Value Influences Behaviour that Expresses Related Values: An Extension of the Value-as-Truths Hypothesis" (2007) 37 *Eur. J. Soc. Psych.* 508. On the role of conformity see also Bardi & Schwartz, *supra* note 91.

101. Steven Hitlin, "Values as the Core of Personal Identity: Drawing Links Between Two Theories of Self" (2003) 66 *Soc. Psych. Q.* 118.

102. Sonia Roccas *et al.*, "The Big Five Personality Factors and Personal Values" (2002) 28 *Personality & Soc. Psych. Bull.* 789. Specifically, positive correlations exist between openness to experience and self-direction, universalism, and stimulation; between agreeableness and benevolence and tradition; and between extraversion and hedonism, achievement and stimulation. Conscientiousness splits between conformity and security, and achievement.

103. Adams, Licht & Sagiv, *supra* note 97. Specifically, conservation values correlate positively with need for closure, and openness-to-change values correlate negatively with it.

104. Kwok Leung *et al.*, "Social Axioms and Values: A Cross-Cultural Examination" (2007) 21 *Eur. J. Personality* 91. See also Michael Harris Bond *et al.*, "Combining Social Axioms with Values in Predicting Social Behaviours" (2004) 18 *Eur. J. Personality* 177.

III. Implementation: Towards Expanded Rationality

In a recent contribution to the economics literature on bounded rationality, Jörg Rieskamp, Jerome Busemeyer and Barbara Mellers state:

Preferences are inherently subjective and arise from a mixture of aspirations, thoughts, motives, emotions, beliefs, and desires. This inherent subjectivity means that preferences are not easily evaluated against objective criteria without knowledge of an individual's goals.¹⁰⁵

This broad assertion corresponds with the developments in the economic research on preferences—what may be called “the preferred”. As the review in Part I above indicates, several strands of this research investigate aspects of the standard model of rational choice. Taken together, these advances point to the need to expand the standard notion of rationality, and they in fact show that economists are already making progress in this direction. The “new rational preferences” are more individually subjective than the preferences postulated by the standard model. They are also more socially sensitive, as they take others more systematically into account. They are contextual, as they depend on the informational environment as well as on the social environment of norms and shared beliefs. However, they seem to be linked to deep mental processes that may be common to several phenomena. These new preferences thus turn the focus away from rationalizing choice decisions on formal bases and towards justifying them with good reasons.

However, behavioural economics has so far failed to look for a general framework for analyzing individuals' motivational goals—what may be called “the desirable”. For economists who seek such a framework in their pursuit of a more general theory of rationality, values may be the Holy Grail, sweeping though this assertion must

105. Jörg Rieskamp, Jerome Busemeyer & Barbara Mellers, “Extending the Bounds of Rationality: Evidence and Theories of Preferential Choice” (2006) 44 J. Econ. Literature 631. These authors do not return to this theme through the rest of their paper, however.

sound. As conceptions of the desirable, values may provide a good framework for expanding the concept of rationality beyond the confines of the traditional model, while preserving parsimony and theoretical rigour and allowing testable hypotheses to be derived. This part suggests areas in which the psychology of values complements current approaches in behavioural economics, and areas in which the former may be used to expand the latter.

A. Value-Based Utility

Let us begin with an impressionistic overview. One will find it difficult to miss the remarkable overlap between the nature of values and what behavioural economists seek to do in expanding the frontiers of rationality. Recall the challenges that economists set for behavioural economic theory: the need to root behavioural conjectures in “psychological observations that apply more generally,”¹⁰⁶ the need to “develop unified explanations for a wider range of phenomena,”¹⁰⁷ and the need to “go . . . from deviations and anomalies to general theories.”¹⁰⁸ The Schwartz model and the related body of literature in the psychology of values satisfy these requirements. The ten types of values and their interrelations may point the way toward a unifying theory of human motivation, a way of organizing the different needs, motives and goals proposed by other theories.¹⁰⁹ The theoretical model provides a concise yet complete model of human motivational goals. The model applies to all life situations, not only economic exchanges. And it has been validated to hold nearly universally (at least in every literate cultural group).

Thanks to these qualities, the values model can integrate well with current economic models and can further enrich them. Consider Sobel’s θ , which comprises the individual’s personal characteristics—in

106. Fudenberg, *supra* note 4, at 704.

107. *Ibid.* at 694.

108. Camerer, *supra* note 18 at 199.

109. Schwartz, “Basic Values”, *supra* note 89; see also Wolfgang Bilsky & Shalom H. Schwartz, “Measuring Motivations: Integrating Content and Method” (2008) 44 *Personality & Individual Differences* 1738.

particular, how one assesses different outcomes and the utility one derives from these outcomes. θ also parallels Akerlof and Kranton's variables denoting identity: social categories, personal characteristics and social prescriptions of appropriate behavior. Yet θ is only a receptacle; it should be written $\theta(\cdot)$, to denote that it has arguments. To be meaningful, $\theta(\cdot)$ must encompass a comprehensive yet final set of goals and criteria with which to assess outcomes. This is precisely the role of values. Representing the set of conceptions of the desirable, the ten distinct values in the Schwartz model can be seen as ten distinct arguments in individuals' utility functions. Writing θ as, say, $\theta_v(\nu_{self. direction} \nu_{stimulation} \dots \nu_{benevolence} \nu_{universalism})$ would denote an individual's set of value priorities.¹¹⁰ This writing will also generalize Sobel's account from one dealing only with other-regarding preferences to a full account of all the individual motivational goals.

The values theory's contribution here lies in defining a closed set of arguments that is both universal and comprehensive. It enables the modeller to avoid the pitfalls of tautology and ad hockery—allowing anything and everything into the definition of utility, or writing a different model for each case.¹¹¹ Granted, there may be many issues that different people in different social groups consider important, desirable, legitimate and so forth. But the theory and evidence indicate that these issues would fall into one of the ten domains in the model. At the same time, many particular values should not be included in the general model: they may be idiosyncratic to certain national or local groups (thus falling into different domains in samples from different groups). In

110. θ is written with a subscript v to denote that there may additional personal characteristics that might shape one's utility function (e.g. intelligence).

111. The definitions of rationality, utility, and similar related terms offered by some law and economics scholars tend to be so broad as to verge on the tautological. See e.g. Richard A. Posner, *Economic Analysis of Law*, 6th ed. (New York: Aspen, 2003) at 17 ("Rationality means little more to an economist than a disposition to choose, consciously or unconsciously, an apt means to whatever ends the chooser happens to have."); Louis Kaplow & Stephen Shavell, *Fairness versus Welfare* (Cambridge: Harvard University Press, 2002) at 18 (the notion of "well-being . . . incorporates in a positive way everything that an individual might value.") and at 465 (well-being is "all-encompassing (and thus not limited to wealth or other tangible elements)."). For critical reviews, see Anita Bernstein, "Whatever Happened to Law and Economics?" (2005) 64 *Maryland L. Rev.* 303; Jeanne L. Schroeder, "Rationality in Law and Economics Scholarship" 79 *Or. L. Rev.* 147 (2000).

such cases the model would indicate that these values may be inappropriate for analytical use beyond those groups.

In addition to identifying motivationally distinct values, the theory also specifies a structure of values, namely, the dynamics of conflict and congruence among the values.¹¹² These dynamics are backed by concrete cross-correlation matrices. Economists seeking to make their models more attuned to insights from psychology thus may want to incorporate this feature into the models. For example, consider an instance of purely altruistic behaviour: making an anonymous donation to a non-governmental organization that runs a clinic in a developing country. An act of this sort will be more likely among people high in universalism. The structural features of the model also suggest that it will be less likely among individuals who put a high priority on power, which encompasses wealth attainment. This highlights the fact that values may operate both as “pull” (positive valence) factors favouring behaviours that are conceptually compatible and as “push” (negative valence) factors discouraging incompatible behaviours. The model further suggests that the act referred to above will be unrelated to value priorities on the conservation/openness-to-change dimension, such as security values.¹¹³

Some decisions may involve a combination of motivational goals. Let us consider the decision to become an entrepreneur. Joseph Schumpeter famously portrayed entrepreneurs as driven by three distinct motivations:

First of all, there is the dream and the will to found a private kingdom, usually, though not necessarily, also a dynasty... Then there is the will to conquer: the impulse to fight, to prove oneself superior to others, to succeed for the sake, not of the fruits of success, but of success itself... Finally, there is the joy or creating, of getting things done, or simply of exercising one’s energy and ingenuity. ... Our type seeks out difficulties, changes in order to change, delights in ventures. This group of motives is the most distinctly anti-hedonist of the three.¹¹⁴

112. See Figure 1, above, and accompanying text.

113. For consistent evidence, see sources cited *supra* notes 92-95.

114. Joseph A. Schumpeter, *The Theory of Economic Development*, trans. by R. Opie (Cambridge: Harvard University Press, 1936) at 93-94.

This portrait reads like a textbook description of an individual who puts a high priority on achievement, power, stimulation and self-direction values—a combination of high self-enhancement and high openness to change.¹¹⁵ Recent research finds consistent results in a broad sample drawn from the European Social Survey.¹¹⁶ Other evidence indicates that entrepreneurs seek autonomy more than wealth attainment,¹¹⁷ and that they also seek variety.¹¹⁸

B. Other-Regarding Preferences

How do non-standard preferences map onto the Schwartz model? It is easy to see the conceptual link between self-transcendence values and other-regarding preferences. The same is true for self-enhancement values and self-utility in the traditional expected utility maximization model. The values theory again may enrich the economic accounts through its structural features. Self-regarding preferences comprise seeking pure pleasure for oneself, as well as other forms of attaining utility, both material and non-material. This former aspect corresponds with hedonism values, while these latter aspects are covered by achievement and partially by power values. These issues are related, as one would expect, but they are also distinct from one another.

At the opposite pole, the values theory distinguishes between two types of other-regarding motivations. Altruistic preferences directed to

115. Amir Licht, “The Entrepreneurial Spirit and What the Law Can Do about It” (2007) 28 *Comp. Lab. L. & Pol’y J.* 817.

116. Noseleit, *supra* note 94.

117. See Barton H. Hamilton, “Does Entrepreneurship Pay? An Empirical Analysis of the Returns to Self-Employment” (2000) 108 *J. Pol. Econ.* 604; Tobias J. Moskowitz & Annette Vissing-Jørgensen, “The Returns to Entrepreneurial Investment: A Private Equity Premium Puzzle?” (2002) 92 *Am. Econ. Rev.* 745; Frank Kerins, Janet K. Smith & Richard Smith, “Opportunity Cost of Capital for Venture Capital Investors and Entrepreneurs” (2004) 39 *J. Fin. & Quant. Analysis* 385; Raphael Amit *et al.*, “Does Money Matter?: Wealth Attainment as the Motive for Initiating Growth-Orientated Technology Ventures” (2000) 16 *J. Bus. Venturing* 119.

118. J. Wagner, “Testing Lazaar’s Jack-of-All-Trades View of Entrepreneurship with German Micro Data” (2003) 10 *Applied Econ. Letters* 687. See also Enrico Santarelli & Marco Vivarelli, “Entrepreneurship and the Process of Firms’ Entry, Survival and Growth” (2007) 16 *Industrial & Corp. Change* 455.

particular individuals in one's in-group are conceptually compatible with benevolence values. More open-ended other-regarding preferences are compatible with Schwartz's universalism. Among current models of other-regarding preferences, Charness and Rabin's model¹¹⁹ better captures the notion of universalism, especially through the factor of caring for the total utility/welfare in society but also through the factor of caring for a (presumably random) least-advantaged member of society. This model nonetheless fails to consider utility derived from caring for impersonal things such as the environment. The values theory, and evidence, suggests that similar motivations may lie behind this type of utility.¹²⁰ In comparison, Fehr and Schmidt's model¹²¹ revolves around the inequality between an individual's income and the income of others. This model is silent on the question whether the "others" whose income one considers do or do not belong to one's in-group.¹²² Indeed, the model fits results from "anonymous ultimatum" and other games. It therefore fails to reflect the difference between benevolence and universal motivations.

The foregoing demonstrates the potential of the values model for enriching further theory development in economics. The contribution of the theory I present in this paper lies primarily in its conceptualization and explication of distinct motivational goals. This theory shares with the standard model the view that satisfying personal goals positively affects one's utility. It improves on the standard model by identifying a particular set of non-hedonistic motivations. A common critique of non-standard-motivation theories is that they are hopelessly idiosyncratic—that they presuppose that seemingly non-standard behaviour must increase one's utility somehow,¹²³ or in other words, that they offer a model for every case and therefore ultimately offer no theory at all. The Schwartz theory refers to values, which by definition are trans-situational. It limits the number of non-standard

119. Charness & Rabin, *supra* note 34.

120. See sources cited *supra* note 95.

121. Fehr & Schmidt, *supra* note 31.

122. For further analysis of the scope of "others" who are covered by universalism values see Shalom H. Schwartz, "Universalism Values and the Inclusiveness of Our Moral Universe" (2007) 38 *J. Cross-Cultural Psych.* 711.

123. See Rabin, *supra* note 22.

motivations, and also posits a circular internal structure of motivational goals. It thus implies a considerable reduction in the freedom of economic modellers to come up with new models as they see fit, as long as such models purport to capture basic motivations. Economic modellers would have to explain how their model fits within the circle of values—i.e. into which particular value domain. Because the set of values is exhaustive, modellers cannot “model outside the circle”, so to speak. At the same time, the universal applicability of the Schwartz theory furthers economists’ aspirations to develop a universal theory of human behaviour.

The Schwartz circle may be likened to the periodic table of the elements introduced by Dmitri Mendeleev. That table predicted the existence of elements not yet known to scientists at the time, and their specific properties in light of the properties of neighbouring known elements. By analogy, the Schwartz model can direct economists’ attention to types of preferences that have not yet been analyzed, and to their “properties” in relation to other types of preferences.

Since value priorities can be measured,¹²⁴ economists can calibrate models of non-standard preferences according to the data. For an example of this, consider Fehr and Schmidt’s model of inequality aversion. Inequality aversion means that people resist unequal outcomes; i.e. they are willing to give up some material payoff to move in the direction of more egalitarian outcomes.¹²⁵ In the simple two-player interaction, individual i ’s utility can be written

$$U_i(x) = x_i - \alpha_i \max(x_i - x_j, 0) - \beta_i \max(x_j - x_i, 0), \quad i \neq j.$$

Here, x denotes a monetary payoff, and α and β are personal parameters expressing the degree of inequality aversion. The second term measures the utility loss from disadvantageous inequality, while the third term measures the loss from advantageous inequality. Fehr and Schmidt make arbitrary (yet reasonable) assumptions about the levels of

124. For a review of measurement methodology see Schwartz, *supra* note 84.

125. Fehr & Schmidt, *supra* note 31 at 822. I deviate from Fehr and Schmidt’s usage of “inequity” and “equitable”, and use “inequality” and “egalitarian” instead. The latter terms are somewhat less heavily laden with diverse connotations in legal discourse.

α and β and their distribution within the population. By measuring people's priorities on universalism and benevolence (as positive valence factors) and on power (as a negative valence factor),¹²⁶ an experimental economist may be able to gain better insight into the incidence of inequality aversion, its determinants, and its actual distribution in the population. While individuals' scores on universalism, benevolence, and power cannot at this stage be simply plugged in as alphas and betas in Fehr and Schmidt's equation, I argue that future development in modelling other-regarding motivations should take exactly that direction. This would allow for empirical testing and calibration of such economic models.¹²⁷

There is now a growing body of data on value priorities from representative samples in over 30 nations.¹²⁸ This opens new opportunities for investigating models of non-standard preferences. For example, economists might be able to investigate whether results from experiments in the laboratory—often conducted with convenience samples of students—fit the data on the general population or on particular groups in the society.¹²⁹ Furthermore, reliable cross-sectional data is now available on the distribution of value priorities within nations.¹³⁰ This could facilitate economic research on national

126. See Schwartz, "Value Priorities and Behavior", *supra* note 92 at 8 (an early two-player experiment in "social games" underscores the role of power and of benevolence *vis-à-vis* universalism).

127. That values are activated by implicit cues suggests, however, that experimenters should exercise special care when they design such exclusions and seek to draw conclusions from them, which is good practice in any event. *Cf.* Sobel, *supra* note 26 at 400 ("Concerns that always arise in experimental settings are especially salient here. Should the experimenter's payoff enter into the subject's utility function?").

128. See the European Social Survey, online: <<http://www.europeansocialsurvey.org/>>.

129. As noted above, evidence suggests that these groups in fact differ from the general population in their value profile. See Adams *et al.*, *supra* note 97; Gandall *et al.*, *supra* note 96.

130. See Shalom H. Schwartz & Galit Sagie, "Value Consensus and Importance: A Cross-National Study" (2000) 31 *J. Cross-Cultural Psych.* 465; Shalom H. Schwartz & Anat Bardi, "Value Hierarchies Across Cultures: Taking a Similarities Perspective" (2001) 32 *J. Cross-Cultural Psych.* 268.

differences in prosocial behaviour—a subject that currently faces significant methodological challenges.¹³¹

C. Uncertainty and Ambiguity Aversion

Next, consider uncertainty and ambiguity aversion. A higher level of ambiguity aversion is conceptually compatible with high priority on conservation values, while a lower level with openness-to-change. People who, relative to others, put a high priority on having new experiences (stimulation) and on independently guiding their own life (self-direction) would be more willing to face unforeseeable contingencies. In contrast, people for whom security, stability, and order (security, tradition) are of high importance would see the unpredictable as threatening and be averse to it. The emphasis on preserving the status quo—whether real or an imaginary ideal-type (e.g. “protecting family values”)—is especially clear in such value items as respect for tradition, honouring parents and elders, and social order. The preference for certainty and stability over ambiguity and change is also reflected in seemingly innocuous value items (such as cleanliness) which convey a sense of clarity.¹³²

More broadly, values that express prevention-of-loss goals are at odds with values that express promotion-of-gain goals (see Figure 1).¹³³ The distinction between the two draws on Troy Higgins’ theory of regulatory focus.¹³⁴ In this theory, hedonic preferences are not continuous. Rather, the domain of losses (in particular, loss avoidance) is distinct from the domain of gains (specifically, gain approach).¹³⁵ This

131. Cf. Joseph Henrich *et al.*, “In Search of Homo Economicus: Behavioral Experiments in 15 Small-Scale Societies” (2001) 91 *Am. Econ. Rev.* 73; Alvin E. Roth *et al.*, “Bargaining and Market Behavior in Jerusalem, Ljubljana, Pittsburg, and Tokyo: An Experimental Study” (1991) 81 *Am. Econ. Rev.* 1068; See also Rachel Croson & Nancy Buchan, “Gender and Culture: International Experimental Evidence from Trust Games” (1999) 89 *Am. Econ. Rev.* 386.

132. Cf. John T. Jost *et al.*, “Political Conservatism as Motivated Social Cognition” (2003) 129 *Psychological Bull.* 339 at 34.

133. Schwartz, “Basic Values”, *supra* note 89.

134. E. Tory Higgins, “Beyond Pleasure and Pain” (1997) 52 *Am. Psychologist* 1280.

135. *Ibid.* See also Lorraine Chen Idson, Nira Liberman, & E. Tory Higgins, “Distinguishing Gains from Nonlosses and Losses from Nongains: A Regulatory Focus

broad distinction parallels another distinction—that between anxiety-based values and anxiety-free values.¹³⁶ The values theory thus suggests that uncertainty and ambiguity will be more threatening for individuals who, relative to others, put more emphasis on power, security, conformity and tradition. These people will be more likely to prefer actions and policies that promise to sustain order and avoid the need to face uncertainty. The reverse is true for people who are high on self-direction and universalism.¹³⁷

The broad distinction between prevention-of-loss goals and promotion-of-gain goals can be further extended to encompass a distinction between values that express complexity aversion and those that express comfort with complexity.¹³⁸ The pivotal observation here is that complex decisions involving many alternatives or several conflicting considerations are more cognitively taxing.¹³⁹ Cognitive complexity was studied earlier in connection with individuals' political ideology. Philip Tetlock defined an individual's integrative complexity as the extent of differentiation among multiple perspectives or dimensions and of higher order integration or synthesis of these differentiated components.¹⁴⁰ In

Perspective on Hedonic Intensity" (2000) 36 J. Experimental Soc. Psych. 252; Leigh Ann Vaughn, Jolie Baumann, & Christine Klemann, "Openness to Experience and Regulatory Focus: Evidence of Motivation from Fit" (2008) 42 J. Res. Personality 886; Vered Halamish *et al.*, "Regulatory Focus Effects on Discounting over Uncertainty for Losses vs. Gains" (2008) 29 J. Econ. Psych. 654. The straightforward link to Kahneman and Tversky's prospect theory had already been noted by Higgins.

136. Schwartz, "Basic Values", *supra* note 89.

137. See Jost *et al.*, *supra* note 132, for a discussion of the link between values and political ideologies.

138. Amir N. Licht, "The Maximands of Corporate Governance: A Theory of Values and Cognitive Style" (2004) 29 Del. J. Corp. L. 649 at 688.

139. John W. Payne, James R. Bettman, & Eric J. Johnson, *The Adaptive Decision-Maker* (Cambridge: Cambridge University Press, 1993) at 29-41; see also James R. Bettman, Eric J. Johnson, & John W. Payne, "A Componential Analysis of Cognitive Effort in Choice" (1990) 45 Org. Behav. & Human Decision Processes 111.

140. See Philip E. Tetlock, "Cognitive Style and Political Ideology" (1983) 45 J. of Personality & Soc. Psych. 118; Philip E. Tetlock, "Cognitive Style and Political Belief Systems in the British House of Commons" (1984) 46 J. Personality & Soc. Psych. 365.

the economics literature, complexity in choice decisions has been shown to invoke negative responses.¹⁴¹

Uncertainty, ambiguity and complexity therefore overlap. With too many moving parts to follow, people lose focus, the picture blurs, and ambiguity reigns supreme. Tirole thus argues that bounded rationality (in the sense of bounded cognitive abilities) may lead people to write incomplete—i.e. ambiguous—contracts.¹⁴² Since everybody is cognitively bounded, everybody, at some point, satisfices when facing a complex or ambiguous situation. We can therefore consider self-transcendence and openness-to-change to be high-complexity values, as they call for contemplating numerous, sometimes conflicting objects and for accommodating uncertainty and ambiguity. Conservation and self-enhancement can be considered to be low-complexity values, as they call for focusing on fewer objects—primarily oneself—and for avoiding uncertainty and ambiguity.

People do differ in how they address ambiguous or complex situations. These differences stem from individual traits and from situational factors. A series of studies by Tetlock and colleagues demonstrated the effects of both of those causal factors. Individuals' dislike of integratively complex alternatives correlates positively with a higher need for cognitive closure¹⁴³ and with conservative political ideologies.¹⁴⁴ Liisa Myyry found that a higher level of integrative

141. See Doron Sonsino, Uri Benzion & Galit Mador, "The Complexity Effects on Choice with Uncertainty—Experimental Evidence" (2002) 112 *Econ. J.* 936; Doron Sonsino & Marvin Mandelbaum, "On Preference for Flexibility and Complexity Aversion: Experimental Evidence" (2001) 51 *Theory & Decision* 197.

142. That is, contracts that are silent on a given issue: Triole, *supra* note 48.

143. See Kruglanski, *supra* note 53, and accompanying text.

144. Philip E. Tetlock, "Cognitive Biases and Organizational Correctives: Do Both Disease and Cure Depend on the Politics of the Beholder?" (2000) 45 *Administrative Sci. Q.* 293. A thorny issue, which many authors abstract from, and this paper will therefore follow suit, is the validity of classifying political ideologies and orientations along a uni-dimensional left-right or conservative-liberal continuum. Tetlock argues that "it is impossible to create a psychometrically defensible one-dimensional measure of ideology." Tetlock empirically derives two such dimensions: high/low traditional conservatism and high/low market libertarianism: *Ibid.*, citing Herbert McClosky & Alida Brill, *The Dimensions of Tolerance: What Americans Believe About Civil Liberties* (New York: Russell Sage Foundation, 1983); Donald R. Kinder, "Opinion and Action in the Realm of Politics" in Daniel T. Gilbert *et*

complexity correlates positively with a higher priority on self-transcendence values and negatively with an emphasis on self-enhancement values.¹⁴⁵ Renée Adams, Lilach Sagiv and I found that a higher need for closure has a strong positive correlation with conservation values (security, tradition and conformity) and a strong negative correlation with openness-to-change values (stimulation and self-direction).¹⁴⁶

In addition, social contexts of accountability and transparency cause people to employ various strategies for cutting short the decision-making process, shunning decisions that are complex or hard to justify and preferring seemingly simple solutions.¹⁴⁷ Moreover, as the level of need for cognitive closure rises, people are more likely to fall back on the “standard solutions” to problems suggested by their culture. In ambiguous, complex social interactions, cultural norms provide easily accessible heuristics for reaching satisfactory solutions, in that their use can be readily justified.¹⁴⁸

al., eds., *The Handbook of Social Psychology Volume II*, 4th ed. (New York: Oxford University Press, 1998) 778. Shalom Schwartz similarly notes that “students of politics have identified two major dimensions of political ideology on which parties in various countries are differentiated.” One is concerned with civil liberties and law and order; the other with economic issues. Schwartz, *supra* note 92 at 10.

145. Liisa Myyry, “Everyday Value Conflicts and Integrative Complexity of Thought” (2002) 43 *Scandinavian J. Psych.* 385.

146. Adams, Licht & Sagiv, *supra* note 97.

147. Philip E. Tetlock, “The Impact of Accountability on Judgment and Choice: Toward a Social Contingency Model” (1992) 25 *Advances Experimental Soc. Psych.* 331; Philip E. Tetlock, Linda Skitka & Richard Boettger, “Social and Cognitive Strategies for Coping with Accountability: Conformity, Complexity, and Bolstering”(1989) 57 *J. Personality & Soc. Psych.* 632. For further discussion, see Philip E. Tetlock & Jennifer S. Lerner, “The Social Contingency Model: Identifying Empirical and Normative Boundary Conditions on the Error-and-Bias Portrait of Human Nature” in Shelly Chaiken & Yaacov Trope, eds., *Dual Process Theories in Social Psychology* (New York: Guilford Press, 1999) 571; Jennifer S. Lerner & Philip E. Tetlock, “Accountability and Social Cognition” in V. S. Ramachandran, ed., *Encyclopedia of Human Behavior* vol. 1 (San Diego: Academic Press, 1994) 1.

148. See Chi-yue Chiu *et al.*, “Motivated Cultural Cognition: The Impact of Implicit Cultural Theories on Dispositional Attribution Varies as a Function of Need for Closure” (2000) 78 *J. Personality & Soc. Psych.* 247; Ho-Ying Fu & Michael W. Morris, “Which Romans Do ‘As Romans Do’? Individual Differences in Conformity to Cultural

The above findings have recently been underscored by Trautmann *et al.*, who point to fear of negative evaluation as the social context factor that invokes ambiguity aversion.¹⁴⁹ The values theory (and earlier, Tetlock's work) suggests that conformity value may be instrumental in such processes. The more conformist people are, the more likely they will dislike engaging in independent deliberation over complex, ambiguous problems, and even more so having to justify their decisions.¹⁵⁰

D. Preference Construction and Related Mechanisms

Let us now turn to the remaining issues identified in the literature as developments in or challenges to the standard model of rationality. The values theory provides a general framework, within which one can situate Slovic's concept of preference construction and related concepts. According to Slovic, "decision making is a highly contingent form of information processing, sensitive to task complexity, time pressure, response mode, framing, reference points, and numerous other contextual factors."¹⁵¹ To the extent that preference construction is guided by reasons,¹⁵² by guiding principles and behavioural rules informed by culture and social norms,¹⁵³ or by narratives that reflect one's culture and identity,¹⁵⁴ values define both the vocabulary for and the intensity of these factors. Values constitute people's guiding principles in life; they define the core of personal identity;¹⁵⁵ and they reflect cultural orientations.

Similarly, it appears fruitful to recast Stanovich's Master Rationality Motive (MRM) in a values mould. At the heart of this "desire to act in

Conflict Resolution Scripts" (2002) Stanford University Graduate School of Business Research Paper Series No. 1660, online: Stanford University Graduate School of Business <<https://gsbapps.stanford.edu/researchpapers/library/RP1660.pdf>> .

149. Trautmann, Vieider & Wakker, *supra* note 45.

150. See Lönnqvist *et al.*, *supra* note 100.

151. Slovic, *supra* note 11 at 369.

152. Shafir *et al.*, *supra* note 11.

153. Amir & Ariely, *supra* note 62.

154. Hill, *supra* note 69.

155. Hitlin, *supra* note 101.

accordance with reasons”, there lies a process of seeking “that of whichever motives appear to provide the strongest reasons for acting”.¹⁵⁶ What makes the MRM unique is its focus on broad rationality: the ability to engage in self-criticism, to consider conceptually conflicting goals and to apply higher-order preferences to them.¹⁵⁷ As trans-situational goals or criteria, values define higher-order preferences. The values theory—in particular, the circular model of values—provides structure to the notion of conflicting goals and low-level preferences as it postulates the relationships of conflict and congruence among values. When the MRM mulls over conflicting goals, it essentially deliberates about which actions are more in line with the values one cherishes.

Finally, a short note on the increasingly popular dual-process account of bounded rationality. Drawing on work by Norman Feather¹⁵⁸ and Meg Rohan,¹⁵⁹ Hitlin and Piliavin hold that “people appraise objects, actions, situations, and people in relation to their values without engaging a great deal of cognitive effort. Values serve as latent guides for evaluations of the social world without themselves requiring much reflection.”¹⁶⁰ I am not aware of any research attempting to advance a dual-process account of the operation of values, or to associate values with System 1 or System 2.¹⁶¹ Values may operate at both levels. System 1 may be involved in unconscious, fast and automatic valuation processes that also elicit affective arousal.¹⁶² The evidence surveyed above on the link between value priorities and behaviour indicates that people can unconsciously grasp the conceptual meaning of situational cues and behave congruently with their value priorities. System 2 may operate in more deliberative valuations when the circumstances call for

156. Stanovich, *supra* note 72.

157. *Ibid.* at 121-122.

158. Norman T. Feather, “Values, Valences, and Choice: The Influence of Values on the Perceived Attractiveness and Choice of Alternatives” (1995) 68 J. Personality & Soc. Psych. 1135.

159. Rohan, *supra* note 84 at 256.

160. Hitlin & Piliavin, *supra* note 84 at 365.

161. Evans’ survey, *supra* note 74, does not mention values among the factors that have been theorized to have dual-process qualities.

162. Letter from Shalom H. Schwartz to author (Aug. 21, 2008), on file with author.

it.¹⁶³ For example, in addressing a dilemma subject to accountability/transparency conditions, System 1 may be involved in the adoption of a strategy for handling the decision problem—whether to seize and freeze or rather seek more information, think about new solutions, etc. System 1 would also be involved in triggering an affective response to the situation. System 2 would be involved in weighing pros and cons of the contemplated decision.

IV. Some Implications for Law

A. Value Diversity

What can a values theory of expanded rationality offer to lawyers? Bluntly, such a theory may offer lawyers—and in particular, law and economics scholars—a way out of the straitjacket of standard-model preferences. The basic economic premise—that people respond to incentives—remains intact. The law is the central social institution for purposefully directing human conduct. In a typical law and economics exercise (if one can still be found), we would therefore investigate how different legal rules and institutions may incentivize behaviour. Armed with these insights, private parties could better plan their moves with a view to maximizing their private welfare. Policy-makers could use the law to affect people's payoffs with a view to achieving social goals such as maximizing aggregate welfare and improving distribution.

A values theory of rationality suggests an expanded version of the payoff-generating mechanism. In such a theory, costs and benefits—and consequently, one's utility—are determined in accordance with one's value priorities. Thus, in considering the payoff structure implied by a legal rule, individuals would consider the utilities they would derive if the rule were implemented as a function of the rule's compatibility with their value priorities. The psychological foundations of the values theory indicate that people can make such evaluations. With values as conceptions of the desirable, one's value priorities define the schedule for assessing desirability. Attainment of wealth or other resources surely

163. *Ibid.*

has a central role in one's considerations. But this role is played in a preference-constructing social context, while interacting with other motivational goals. This is one facet of value diversity: utility is defined over a set of values-based arguments.

From the vantage point of policy-makers, expanding the set of motivational goals is accompanied by creating a whole distribution of value profiles—of tastes for the desirable—among members of society. This brings up an old bone of contention in economic theory, namely whether we can assume that people have uniform preferences. George Stigler and Gary Becker, the quintessential proponents of the standard model of rationality, argued that economic analysis can limit its focus to “differences in prices or incomes to explain any differences or changes in behavior”, on the assumption that preferences are uniform:

[T]astes neither change capriciously nor differ importantly between people. On this interpretation one does not argue over tastes for the same reason that one does not argue over the Rocky Mountains—both are there, will be there next year, too, and are the same to all men.¹⁶⁴

The uniform preferences assumption is a convenient one not only for economists but also for policy-makers. It allows the latter to design policy measures on the assumption that the marginal societal member to be affected by the new measure would respond only to changes in prices, income or wealth. As economists began to explore non-standard preferences, they also had to inquire into the distribution of such preferences in the population. Fehr and Schmidt thus analyze a distribution of other-regarding preferences in light of the experimental evidence in this regard.¹⁶⁵ Policy-makers and law-makers who heed economic analyses will have to follow suit.¹⁶⁶ This is another facet of value diversity: individuals' value priorities differ.

164. See Stigler & Becker, *supra* note 28.

165. Fehr & Schmidt, *supra* note 31 at 843-44. For a detailed discussion linking preference distribution to personality traits see Bryan Caplan, “Stigler-Becker versus Myers-Briggs: why Preference-Based Explanations are Scientifically Meaningful and Empirically Important” (2003) 50 J. Econ. Behav. & Org. 391.

166. The truth of the matter is that politicians probably have always recognized, at least intuitively, the importance of values as the vocabulary of political discourse. For a

The remainder of this paper demonstrates how these two facets of value diversity—the structured model of values and societal variation in value priorities—can be harnessed to enhance the analysis of one central legal issue.

B. Implementation: The Objectives of the Corporation

(i) The Scholarly Stand-Off (a.k.a. “The Debate”)

One of the oldest debates in corporate law—possibly its very oldest—is over the objectives of the business corporation. Ninety years ago the Michigan Supreme Court admonished Henry Ford (and the business and legal communities more generally), in language that would resonate for years to come:

A business corporation is organized and carried on primarily for the profit of the stockholders. The powers of the directors are to be employed for that end. The discretion of directors is to be exercised in the choice of means to attain that end and does not extend to a change in the end itself, to the reduction of profits or to the nondistribution of profits among stockholders in order to devote them to other purposes.¹⁶⁷

The proposition that shareholders are the primary beneficiaries of the corporation, and hence that directors’ fiduciary duties run to them (as well as to the corporation) is less controversial than it once was.¹⁶⁸ This proposition is traditionally interpreted as calling on corporate fiduciaries to maximize shareholder value.¹⁶⁹ It is often referred to in

scholarly discussion of values in political science, see e.g. Stanley Feldman, “Values, Ideology, and the Structure of Political Attitudes” David O. Sears, ed., *Oxford Handbook of Political Psychology* 477 (New York: Oxford University Press, 2003).

167. *Dodge v. Ford Motor Co.*, 170 N.W. 668 at 683 (Mich. 1919) [*Dodge*].

168. *Guth v. Loft, Inc.*, 5 A.2d 503 at 510 (Del. 1939).

169. See e.g. Michael P. Dooley, *Fundamentals of Corporation Law* (Eagan: West, 1995) at 97 (Corporate law scholars “generally agree . . . that management’s principal fiduciary duty is to maximize the return to the common shareholders . . .”); D. Gordon Smith, “The Shareholder Primacy Norm” (1998) 32 Iowa J. Corp. L. 277 at 278 (“Corporate directors have a fiduciary duty to make decisions that are in the best interests of the shareholders.”)

shorthand as the “shareholder primacy norm” or the “shareholder wealth maximization norm”. While it is widely cited and compelling in its rhetoric, the strict ruling in *Dodge* does not reflect current legal doctrine in either the United States¹⁷⁰ or Canada,¹⁷¹ nor is it fully supported by current economic analyses.

In the early 1930s, a famous scholarly exchange between E. Merrick Dodd and Adolph Berle defined the basic positions in the theoretical debate as it continues to this day.¹⁷² Dodd argued that the *Dodge* ruling was undesirable. Apparently moved by the Great Depression and the budding New Deal, Dodd prophesied that in the reformed economy there would be “modifications of the maximum-profit-for-the-stockholders-of-the-individual-company formula.”¹⁷³ Contrary, perhaps, to how Berle’s views are usually portrayed, he actually agreed with Dodd that the interests of non-shareholder constituencies should be advanced by corporate fiduciaries in tandem with shareholders’ interests.¹⁷⁴ Berle nonetheless argued that as much as it may be desirable, social responsibility was not in practice pursued by corporations and corporate insiders, nor could they pursue it. The legal institution of trusteeship, upon which corporate fiduciary duties are modelled, cannot withstand owing such duties to several beneficiaries. This, Berle believed, would create an insurmountable implementation problem because there was no mechanism that could enforce social responsibility on corporations and fiduciaries.¹⁷⁵ Making shareholders the sole

170. For a review see Licht, *supra* note 138 at 700-704. See also Section V.II.2 below.

171. See Section V.II.3, below.

172. E. Merrick Dodd, Jr., “For Whom are Corporate Managers Trustees?” (1932) 45 Harv. L. Rev. 1145.

173. *Ibid.* at 1151. Dodd referred to “the present time”, “recent economic events”, “contemporary discussion of the need for planned economic order”, and so forth. *Ibid.* at 1148, 1151-52.

174. For a detailed analysis see Licht, *supra* note 138 at 690-98.

175. Adolph A. Berle, Jr., “For Whom Corporate Managers Are Trustees: A Note” (1932) 45 Harv. L. Rev. 1365 at 1365-67 (“Now I submit that you can not abandon emphasis on ‘the view that business corporations exist for the sole purpose of making profits for their shareholders’ until such time as are to be prepared to offer a clear and reasonably enforceable scheme of responsibilities to someone else.”).

beneficiaries of corporate fiduciary duties is thus an inevitable second best. The first-best regime might be implemented only in Utopia.¹⁷⁶

Fast forward to the present. The standard law and economics approach holds, simply, that the shareholder-value-maximization rule is both workable and efficient. This is because shareholders are the residual claimants on the corporation, and by definition, there can only be one residual claimant. A multiple-constituency rule is said to be unworkable and inefficient. Frank Easterbrook and Daniel Fischel have made this argument in its purest form,¹⁷⁷ and Michael Jensen has added that a multiple-constituency rule is not only a licence for managerial opportunism but is also bound to confuse managers beyond hope.¹⁷⁸ Subsequent economic research on incomplete contracts and on the theory of the firm¹⁷⁹ has revealed, however, that the problem is nastier than first meets the eye. The logic behind the single-constituency rule rests on the assumption that the interests of all non-shareholder constituencies are well-defined by contracts, such that shareholders remain the residual claimants.¹⁸⁰ Where contracts are incomplete, as they

176. The issue is discussed in the fifth chapter of Adolph A. Berle, Jr., *The 20th Century Capitalist Revolution*, (New York: Harcourt, Brace & Company, 1954), which is tellingly entitled “Corporate Capitalism and ‘The City of God’” at 164. See Joseph L. Weiner, “The Berle-Dodd Dialogue on the Concept of the Corporation” 64 *Colum. L. Rev.* 1458 at 1466.

177. See Frank H. Easterbrook & Daniel R. Fischel, *The Economic Structure of Corporate Law* (Cambridge, Mass.: Harvard University Press, 1991) at 38. See also Oliver Hart, “An Economist’s View of Fiduciary Duty” (1993) 43 *U.T.L.J.* 299 at 303; Michael C. Jensen, “Value Maximization, Stakeholder Theory, and the Corporate Objective Function” (2001) 7 *Eur. Fin. Management* 297 at 305.

178. Jensen, *ibid.* at 301 (“a decision-maker cannot make rational choices without some overall single dimensional objective to be maximized. Given a dozen or two dozen measures and no sense of the tradeoffs between them, the typical manager will be unable to behave purposefully, and the result will be confusion.”)

179. See generally Oliver Hart, *Firms, Contracts, and Financial Structure* (New York: Oxford University Press, 1995); Douglas B. Bernheim & Michael D. Whinston, “Incomplete Contracts and Strategic Ambiguity” (1998) 88 *Am. Econ. Rev.* 902.

180. For a strong exposition of this view see *Simons v. Cogan*, 542 A. 2d 785 at 791 (Del. 1987) [*Simons*] (referring to the “highly negotiated and exhaustively documented commercial relationship between an issuer of convertible securities and the holders of such securities”). For development of Delaware corporate law since *Simons*, see *National*

are in reality, the rights of all corporate constituencies become ambiguous. Corporate decision-makers constantly need to use their power to handle multiple claims in this situation of ambiguity.¹⁸¹

Now that complexity and ambiguity in discharging fiduciary duties can no longer be swept under the rug, the old question, which Berle first identified, re-emerges: can the law “offer a clear and reasonably enforceable scheme of responsibilities” for corporate fiduciaries?¹⁸² Two recent contributions show that little has changed since the time of Berle and Dodd. Stephen Bainbridge advances a model of “director primacy.”¹⁸³ According to Bainbridge, authority should be the governance mechanism in corporations and directors are the proper locus of authority.¹⁸⁴ Shareholder wealth maximization should be the sole objective of corporate governance.¹⁸⁵ A multiple-constituency rule would simply be unworkable, as it creates a “thorny problem of

American Catholic Educational Programming Foundation Inc. v. Gheewalla, 930 A.2d 92 (Del. 2007).

181. For an especially clear illustration of the difficulties with multiple-objective maximization, see Bengt Holmstrom & Paul Milgrom, “Multitask Principal-Agent Analyses: Incentive Contracts, Asset Ownership, and Job Design” (1991) 7 J.L. Econ. & Org. 24.

182. Berle, *supra* note 175 at 1367.

183. See Stephen M. Bainbridge, “The Board of Directors as Nexus of Contracts” (2002) 88 Iowa L. Rev. 1 [Bainbridge, “Nexus of Contracts”]; Stephen M. Bainbridge, “Director Primacy: The Means and Ends of Corporate Governance” (2003) 97 Nw. U.L. Rev. 547 [Bainbridge, “Means and Ends”]; Stephen M. Bainbridge, “Director Primacy in Corporate Takeovers: Preliminary Reflections” (2002) 55 Stan. L. Rev. 791; Stephen M. Bainbridge, “Unocal at 20: Director Primacy in Corporate Takeovers” (2006) 31 Del. J. Corp. L. 769; Stephen M. Bainbridge, “Director v. Shareholder Primacy in the Convergence Debate” (2002) 16 Transnat’l L. 45.

184. Bainbridge, “Nexus of Contracts”, *ibid.* at 20 (“authority-based structures are characterized by the existence of a central agency to which all relevant information is transmitted and which is empowered to make decisions binding on the whole.”), citing Kenneth J. Arrow, *The Limits of Organization* (New York: Norton & Co., 1974) at 69-70.

185. Bainbridge, “Means and Ends”, *supra* note 183 at 550 (“[D]irector primacy claims that shareholders are the appropriate beneficiaries of director fiduciary duties. Hence, director accountability for maximizing shareholder wealth remains an important component of director primacy.”)

implementation”.¹⁸⁶ Margaret Blair and Lynn Stout advance a model of directors as “mediating hierarchs”.¹⁸⁷ In this view too, the board enjoys ultimate decision-making authority to determine the use of corporate assets, but the board is assumed to be able to reconcile all of the conflicting interests and disputes that may arise among corporate constituencies.¹⁸⁸ Blair and Stout allay concerns about the problem of managerial opportunism by pointing to the empirical evidence on other-regarding preferences.¹⁸⁹

(ii) The Effect of Value Diversity

What, then, explains the difference between these two seemingly similar yet diametrically opposed views on the objectives of the corporation—the single-constituency (or shareholder value) view and the multiple constituency view? More broadly, what could explain the longevity and continuing vitality of this debate?¹⁹⁰ The answer is values. An expanded rationality account building on the values theory can explain the different positions in the debate, as well as the positive law on the issue.

On the self-enhancement versus self-transcendence value dimension, the focus is on other-regarding preferences. A multiple-constituency rule is clearly congruent with self-transcendence values. In its “corporate social responsibility” (CSR) variant, the multiple-constituency rule

186. Stephen M. Bainbridge, “The Bishops and the Corporate Stakeholder Debate” (2002) 4 Villanova J. L. & Investment Management 3 at 6, 16.

187. See Margaret M. Blair & Lynn A. Stout, “A Team Production Theory of Corporate Law” (1999) 85 Va. L. Rev. 247 [Blair & Stout, “Team Production”]; Margaret M. Blair & Lynn A. Stout, “Trust, Trustworthiness, and the Behavioral Foundations of Corporate Law” (2001) 149 U. Pa. L. Rev. 1735 [Blair & Stout, “Behavioral Foundations”]; see also Margaret M. Blair & Lynn A. Stout, “Director Accountability and the Mediating Role of the Corporate Board” (2001) 79 Wash. U.L.Q. 403.

188. Blair & Stout, “Team Production”, *ibid.* at 276-77.

189. Blair & Stout, “Behavioral Foundations”, *supra* note 187.

190. Interestingly, Stout has recently argued that we should stop teaching *Dodge*. Lynn A. Stout, “Why We Should Stop Teaching *Dodge v. Ford*” (2008) 3 Va. L. & Bus. Rev. 163. However, the continued vitality of the judgment in legal and other scholarly literature shows that this is an exercise in futility. The text suggests why this may be the case.

strongly expresses universalism; it calls on managers to care for a wide range of stakeholders, some of which relate to the company relatively loosely—e.g. the environment, or society at large (through corporate philanthropy). In contrast, the single-constituency rule (which always focuses on shareholders) calls on managers to focus on a single objective, shareholder wealth maximization, by seeking to increase profits and share prices. This rule thus emphasizes power most clearly. Moreover, while the multiple-constituency rule posits the equal worthiness of different stakeholders, the single-constituency rule would advance shareholders' interests even at the expense of other stakeholders, thus privileging power and rejecting universalism.

The analysis is less clear-cut with regard to the conservation versus openness-to-change dimension. Two theoretical accounts stand out, and they point in opposite directions. The first account focuses on complexity and ambiguity aversion. A single-constituency rule fits the values of the complexity-averse and ambiguity-averse. Managers have only a single ball to keep their eyes on, only one constituency they are accountable to, and there is only one metric by which their performance is judged. Life in the corner office may not be easy but at least it is clear. The shareholder-wealth-maximization rule is thus consistent with conservation values, particularly security. Under a multiple-constituency rule, managers have to keep juggling several balls. One stakeholder constituency may get preferred treatment sometimes, and another constituency at other times, according to what managers believe to be in the best interests of the corporation. Different decisions may be needed in different, and likely unpredictable, circumstances. The multiple-constituency rule is thus consistent with self-direction.

The second theoretical account draws on the notion of entrepreneurial spirit discussed above.¹⁹¹ Theory and evidence suggest that genuine entrepreneurship¹⁹² of the Schumpeterian type—namely, seeking new opportunities, trying new combinations and generally being innovative—is motivated by a special preference for variety, independence and success. In economic terms, as Knight points out,

191. See text accompanying note 114 *et seq.*

192. People may establish firms for other reasons—to avoid (or evade) regulation, poor personal fit within large organizations, etc.

entrepreneurship entails low uncertainty aversion, for which the entrepreneur is rewarded.¹⁹³ As noted above, this profile reflects a high priority on self-direction and also on achievement and power. In the business corporation the shareholder constituency plays a uniquely entrepreneurial role; common equity investors are the only constituency that is fully exposed to uncertainty in business returns. In this respect, they are the most explicit residual claimants. A legal rule that reflected entrepreneurial values would consequently be in line with their interest.

Adams, Sagiv and I¹⁹⁴ have taken a quasi-experimental approach to the question of value diversity. We gave board members and CEOs of public corporations in Sweden a set of vignettes based on seminal legal cases such as *Dodge v. Ford*, which dealt with conflicts between shareholders and other stakeholder constituencies. These top executives exhibited a systematic approach to different conflict that mapped onto a single dimension of “shareholderism versus stakeholderism”. After controlling for personal and firm-level attributes, we found that higher power, achievement and self-direction, and lower universalism predicted stronger shareholderism. This is in line with the other-regarding preferences account and the entrepreneurship account. However, the complexity/ambiguity-aversion account need not be ruled out quite yet, as there is some evidence to support it too.¹⁹⁵

The central insight to be gleaned from these findings is that they point to a systematic link between decision-makers’ value priorities and their stances on legal problems, and quite possibly between their value priorities and their behaviour in such cases. The law is the same for everybody, and Swedish company law in fact prescribes shareholder wealth maximization, as does U.S. law.¹⁹⁶ Nevertheless, within this uniform legal environment, the evidence is consistent with the idea that different values lead different managers to make different choices—that

193. See text accompanying note 37 *et seq.*

194. Adams, Licht & Sagiv, *supra* note 97.

195. See Tetlock, *supra* note 168. See also Bradley Agle, Ronald K. Mitchell & Jeffrey A. Sonnenfeld, “Who Matters to CEOs? An Investigation of Stakeholder Attributes and Salience, Corporate Performance, and CEO Values” (1999) 42 *Academy Management J.* 507. These researchers investigated only self-regarding versus other-regarding values, but failed to find systematic correlations with stakeholder importance.

196. Adams *et al.*, *supra* note 97.

they strive to do what they believe is the right thing. Crucially, these choices are unrelated to their personal welfare—the managers in our study could realize no material gain or loss from their decisions, which makes it more credible that they based their decisions on their true value preferences. Managers' behaviour, I argue, is guided by utility considerations that are informed by their basic motivational goals in life. A standard-rationality account thus could not explain this variation;¹⁹⁷ only an expanded-rationality account could.

Next, consider the vantage point of policy-makers. How should the law on the objectives of the corporation look in the light of value diversity? The values theory implies that a law would seem more appropriate and desirable to people the more it accords with their personal values. A shareholder-wealth maximization rule, which emphasizes power and security values, would therefore appear particularly desirable to people who endorse those values more and universalism and self-direction less. Such individuals tend to be political conservatives (in the North American sense of the term). A multiple-constituency rule, reflecting universalism and self-direction, would appeal more to political liberals, who tend to emphasize these values.¹⁹⁸ For example, Bainbridge, a self-proclaimed conservative,¹⁹⁹ sees directors as dominant hierarchs and staunchly advocates a single-constituency rule, primarily as a stopgap against managerial opportunism. Blair and Stout—the former being a notable proponent in the progressive corporate law movement—also see directors as dominant hierarchs. Yet they are optimistic about managers' ability to handle multiple

197. Granted, a standard-rationality account would predict that if managers had a direct monetary stake in their decision they would be more likely to decide in line with their personal interest. For example, if they held stocks or stock options they would more likely side with shareholders' interests. This does not disprove (or prove) the inference in the text.

198. Recall that the distinction between power and security values on the one hand, and universalism and self-direction on the other, parallels the distinction between anxiety-based and anxiety-free values. See text accompanying note 89 *et seq.* and Figure 1.

199. See e.g. Stephen M. Bainbridge, "Community and Statism: A Conservative Contractarian Critique of Progressive Corporate Law Scholarship" (1997) 82 Cornell L. Rev. 856.

stakeholders without succumbing to opportunistic impulses.²⁰⁰ Superficially, this state of affairs is manifested in the literature as a whole: conservatives are shareholderists; progressives are stakeholderists.

Not so quickly. Value diversity within the population makes the move from personal values to legal policy less straightforward. There remains the problem of implementation. Law-makers not only have to believe that they are making the right rule; they also need to believe that it will work. If a significant group of people within the population emphasize different values than those endorsed by a legal rule, they will be less likely to abide by the rule. The problem will be all the more difficult if that group tends to be the very one to which the rule is directed. Things get even more complicated where it is difficult to verify in court whether the rule was followed or breached. In such circumstances of asymmetrical information, law's ability to direct conduct through deterrence is limited or nil. People will do what *they* think is good or right.

The issue of the objectives of the corporation presents a hard case of precisely this sort. The basic implementation problem, first identified by Berle so many years ago, remains as thorny as ever. Anglo-American common law has developed an elaborated set of general doctrines and specific rules for dealing with actors in fiduciary positions—trustees, agents, and so forth. At the heart of this body of law stands a “duty of the finest loyalty . . . Not honesty alone, but the punctilio of an honor the most sensitive, is then the standard of behavior.”²⁰¹ Loyalty at this level of purity could be owed only to a single beneficiary. Implementing a multiple-constituency rule will thus require abandoning the fiduciary model altogether or modifying it so much that it will not be recognizable.

In addition, in the abovementioned study, Adams, Sagiv and I found that in comparison to a representative sample of the population in

200. For the sake of precision, it should be noted that Blair and Stout distance themselves from progressive commentators who have argued that corporate law ought to be reformed to make directors more accountable to stakeholders. Blair & Stout, “Team Production”, *supra* note 187 at 255.

201. This is the famous admonition of Cardozo J. in *Meinhard v. Salmon*, 164 N.E. 545 at 546 (N.Y. 1928).

Sweden, board members and CEOs of public corporations scored significantly higher on power, achievement, stimulation and self-direction, and significantly lower on universalism and benevolence. This suggests that top executives may have a value profile that is more conducive to shareholderism than the average person. Consequently, what many people may consider a desirable and perhaps even quite workable rule may seem wrongheaded to the very people who are supposed to obey it. Conservation and self-enhancement values, moreover, are consistent with higher anxiety due to uncertainty, to a generally negative view of human nature and to lower trust in strangers.²⁰² This should make one even more hesitant to give managers full discretion about how to balance the interests of different stakeholder groups. Finally, although there has been some progress toward more elaborate non-financial, stakeholder-oriented reporting,²⁰³ the truth is that we currently lack mechanisms for assessing business companies' "social performance" that are as reliable as those we have for assessing financial performance.²⁰⁴

Against this backdrop, one can only admire Berle's ability to create an acoustic separation²⁰⁵ between the law that he would have ideally liked to govern corporate fiduciaries and the law that he thought could and realistically should govern them. Berle would personally have preferred to see a world in which corporations served the entire society

202. Schwartz, "Basic Values", *supra* note 89.

203. See generally Aaron Chatterji, David I. Ian Levine & Michael W. Toffel, "How Well Do Social Ratings Actually Measure Corporate Social Responsibility?" (2008) HBS Technology & Operations Management Unit Research Paper No. 07-051, online: Social Science Research Network <<http://ssrn.com/abstract=993094>>; "KPMG International Survey of Corporate Responsibility Reporting 2005", online: KPMG Czech Republic <http://www.kpmg.cz/czech/images/but/2005_International_Survey_Corporate_Responsibility.pdf>; Cynthia A. Williams, "The Securities and Exchange Commission and Corporate Social Transparency" (1999) 112 Harv. L. Rev. 1197.

204. For a meta-analysis, see Joshua D. Margolis, Hillary Anger Edfenbein, & James P. Walsh, *Does it Pay to be Good? A Meta-Analysis and Redirection of Research on the Relationship between Corporate Social and Financial Performance* (2007), online: Stakeholder Marketing Consortium <<http://stakeholder.bu.edu/Docs/Walsh,%20Jim%20Does%20It%20Pay%20to%20Be%20Good.pdf>>.

205. I am paraphrasing Meir Dan-Cohen, "Decision Rules and Conduct Rules: On Acoustic Separation in Criminal Law" (1984) 97 Harv. L. Rev. 625.

and not just shareholders.²⁰⁶ However, he found it necessary to acknowledge that this goal could not be achieved through legal measures and might better be left as a utopian aspiration—“until such time as you are prepared to offer a clear and reasonably enforceable scheme of responsibilities to someone else.”²⁰⁷ Berle thus stands out as a model of level-headed analytical insightfulness for current and would-be policy-makers.

(iii) A Postscript on the Supreme Court of Canada’s judgment in *BCE*

The December 2008 judgment of the Supreme Court of Canada in *BCE Inc. v. 1976 Debentureholders*²⁰⁸ provides a unique vehicle for discussing the application of the theory and arguments put forward in this article. In what would have been the largest leveraged buyout in history, not only in Canada but anywhere in the world, the officers of *BCE Inc.* received several competing bids for the company. Any of them would have required the corporation to take on substantial new debt, which would have led to a decline in the market value of its existing bonds and the likely loss of their investment grade status. The officers decided to accept one of the bids, and the proposed transaction was almost unanimously approved by the shareholders. However, the bondholders sued to enjoin it. Their action was based mainly on the “oppression remedy” provision in the *Canada Business Corporations Act*, which gives the courts the power to make remedial orders where a corporation’s directors or officers have acted in a manner “that is oppressive or unfairly prejudicial to or that unfairly disregards the interests of any security holder, creditor, director or officer . . .”²⁰⁹

206. See Adolph A. Berle, Jr. & Gardiner C. Means, *The Modern Corporation and Private Property* (New York: Macmillan Press Ltd, 1933) at 355-356 (“[Shareholders] have surrendered the right that the corporation should be operated in their sole interest. . . . They have placed the community in a position to demand that the modern corporation serve not alone the owners or the control but all society.”).

207. Berle, *supra* note 175 at 1367; see also Berle, *supra* note 176.

208. 2008 SCC 69, [2008] 3 S.C.R. 560 [*BCE*].

209. *Canada Business Corporations Act*, R.S.C. 1985, c. C-44, s. 241(2) [*CBCA*]. This provision resembles “other constituencies” statutes in the United States.

Standard treatments of the status of stakeholders in common law jurisdictions are usually confined by the premise that a fiduciary's unbending loyalty can be owed only to a single beneficiary. The nominal beneficiary is therefore the company,²¹⁰ and the ultimate beneficiaries are nearly invariably the shareholders, at least in the long term.²¹¹ In *BCE*, the Supreme Court of Canada conducted an analysis that was essentially along those lines, but in the context of the statutory "oppression remedy" provision, which, as noted above, refers explicitly to creditors as well as shareholders.²¹² This makes it necessary to address conflicts between stakeholders. The Court made the following important comments:

[C]onflicts may arise between the interests of corporate stakeholders *inter se* and between stakeholders and the corporation. Where the conflict involves the interests of the corporation, it falls to the directors of the corporation to resolve them in accordance with their fiduciary duty to act in the best interests of the corporation, viewed as a good corporate citizen.

The cases on oppression, taken as a whole, confirm that the duty of the directors to act in the best interests of the corporation comprehends a duty to treat individual stakeholders affected by corporate actions equitably and fairly. There are no absolute rules. In each case, the question is whether, in all the circumstances, the directors acted in the best interests of the corporation, having regard to all relevant considerations, including, but not confined to, the need to treat affected stakeholders in a fair manner, commensurate with the corporation's duties as a responsible corporate citizen.

Directors may find themselves in a situation where it is impossible to please all stakeholders. . . . There is no principle that one set of interests—for example the interests of shareholders—should prevail over another set of interests.²¹³

On the merits of the case, the Court held that the bondholders were not treated unfairly.²¹⁴ However, by recognizing that there is a conflict

210. See *BCA*, *supra* note 209, s. 122.

211. A prominent exception in the U.S. is *A.P. Smith Manufacturing Co. v. Barlow*, 98 A.2d 581 (N.J. 1953).

212. *BCA*, *supra* note 209, s. 241(2).

213. *BCE*, *supra* note 208 at paras. 81-84.

214. Consistently with prior case law, the Court held that the directors' obligations to the bondholders were primarily contractual. The bondholders did not, in the Court's

in cases of this sort and no way to avoid hardship to some constituencies, the Supreme Court of Canada in *BCE* puts on the table what many courts have swept under the carpet. The Court furthermore emphasizes fairness rather than loyalty as the framework of analysis, thus allowing for conflicting interests to be weighed against one another. However, the Court gives directors and managers no guidance as to how resolve that dilemma, and in fact notes that the law may not suffice for this purpose.²¹⁵ Company fiduciaries are left to their own devices to decide what is in the best interests of the company. In situations calling for such decisions, directors and managers are likely to resort to values—their stable beliefs and goals in life—as criteria to guide them to the right behaviour. Value diversity—i.e. differences in value priorities as between individuals—will lead different managements and boards to different conclusions in that regard. In addition, at the societal level, policy-makers in different countries may strike a different balance among stakeholders, in the light of, among other things, prevailing social (or cultural) values.²¹⁶

Conclusion

At the risk of over-generalization, it would be fair to say that much of the behavioural law and economics literature has been preoccupied with bounded rationality. In this regard, law and economics scholars have on the whole tended to follow the lead of their colleagues in the economics departments. As the evidence for bounded rationality has

view, have any reasonable expectation that the directors would take no action that would lower the resale value of existing bonds if in the directors' considered view, such action would be in the best interests of the corporation. *BCE*, *supra* note 208 at paras. 98-100.

215. *BCE*, *supra* note 208 at para. 71 (“the court looks beyond legality to what is fair, given all of the interests at play”).

216. For example, Canadian law differs not only from the law of Delaware. Section 241(2) of the *CBCA*, *supra* note 209 also differs from its counterpart in the United Kingdom, *Companies Act 2006* (U.K.), 2006, c. 46. The U.K. unfair prejudice provision (*ibid.*, s. 994) gives standing only to shareholders, and the provision on the objectives of the company (*ibid.*, s. 172) recognizes the importance of all stakeholders but explicitly subordinates their interests to that of the shareholders. For a general discussion, see Licht, *supra* note 138.

increased, dismissing observations from the judgment and decision-making branch of psychology as mere quirks has become a less and less plausible proposition. Bounded rationality has become an accepted concept. Legal scholars are making inroads in harnessing insights from this research to inform legal policymaking.

This paper has argued that economic research and legal analysis would benefit from adopting a model of expanded rationality based on the theory of values from psychology. Schwartz's currently leading model of values, elaborated upon in Part II above and applied in Parts III and IV, exhibits a balance between generality and parsimony. This model also lends itself to empirical testing in the laboratory and in the field. Obviously, when economists struggle with modelling concepts of other-regarding preferences and ambiguity aversion, one might wonder why we need to bother with a ten-value model with a particular internal structure that is bound to muddy the waters further. The answer, I believe, is equally obvious, and it is similar to the point Conlisk and Sobel have eloquently made in arguing for the study of bounded rationality.²¹⁷ In short, it is because the theory of values, and the model of values based on that theory, are truer to life.

217. See Conlisk, *supra* note 3 at 683-86; Sobel, *supra* note 26 at 430-32.