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THE HIDDEN ECONOMY OF THE UNCONSCIOUS

ANNE C. DAILEY*

INTRODUCTION

[I]t is no accident that the cognitive approach gives us no way to know what the subject will think of next. We cannot possibly know this, unless we have a detailed understanding of what he is trying to do, and why. For this reason, a really satisfactory theory of the higher mental processes can only come into being when we also have theories of motivation, personality, and social interaction. The study of cognition is only one fraction of psychology, and it cannot stand alone.

—Ulric Neisser, Cognitive Psychology

This Article makes three related observations about the relationship between law and economics scholarship and cognitive psychology. First, the slow but steady incorporation of cognitive psychology into the field of law and economics is a positive, but vastly insufficient, step in the direction of developing an economic approach to law premised upon empirical insights about human behavior and decisionmaking. I argue that the usefulness of cognitive psychology is limited by its subject matter and, in particular, its failure to comprehend the important role that unconscious emotions and irrational motives play in human affairs. Second, psychoanalysis is the only empirical psychology directed to understanding the mechanisms of human irrationality and, as such, should be an essential tool for the economic study of law. Finally, I observe that what psychoanalytic research offers law and economics is, in part, an economic theory of the mind. The economic theory gives us a model for understanding how internal mechanisms of exchange affect our transactions in the world. The economic model does not capture the full psychoanalytic account of mental life, but its ideas about emotional energy and its commerce, the psychic transactions between unconscious and conscious and between mind and body, and the legal and political implications of emotional transference, are all vitally relevant to the economic analysis of law today.

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I. COGNITIVE LIMITATIONS

Economic analysis has without question enjoyed a powerful and widespread influence within the legal academy over the last few decades. As most first-year law students now learn, economic analysis studies how individuals act to achieve their goals, or in economic terms how they maximize their expected utility, under conditions of scarce resources. In law, economic analysis has been useful both for explaining observed market behavior as well as for developing norms of conduct that are said to promote, again in economic terms, the maximization of social welfare. As presently conceived, economic analysis rests on the basic assumption that economic actors are rational decisionmakers who consistently choose the best means for achieving given preferences or ends. Although the traditional study of market behavior does not require that every market participant behave rationally, at a minimum the theory requires that a majority of participants act or react to market conditions in a rational and predictable manner.

As investigators have turned in recent years to solving the problem of empirical market failures, and as the scope of economic analysis has expanded beyond the traditional sphere of competitive markets to encompass areas such as family life, criminal behavior, and race discrimination, the rationality of individual decisionmaking has itself become the focus of economic inquiry. The question of why

4. The economic assumption that individuals behave rationally can be defined in descriptive or normative terms. In descriptive terms, rationality is simply taken to mean consistently choosing the best means for achieving given ends. In normative terms, rationality sets limits on available ends by reference to substantive norms such as happiness, goodness, or profit. See Kenneth J. Arrow, Preface, in THE RATIONAL FOUNDATIONS OF ECONOMIC BEHAVIOUR xiii, xiii (Kenneth J. Arrow et al. eds., 1996). This Article is concerned only with the descriptive version of rationality.
markets fail when economic models predict they should succeed and the problem of applying economic principles to nonmarket relationships have occasioned what appears to be a growing dissatisfaction with the traditional assumption that individuals always, or even mostly, act to maximize their expected utility. Some economic theorists have attempted to broaden the meaning of rational self-interest to include behavior that, on the surface at least, appears irrational or altruistic. Dissatisfaction has led others to abandon economic analysis altogether. But a growing number of economists have turned their attention to studying the cognitive processes, both conscious and unconscious, that underlie the phenomenon of human choice.

Cognitive psychology is best known as the science of human information processing. Researchers in the field carry out experimental studies of perception, memory, computation, judgment, attention, language, problem-solving, and related mental processes in an effort to understand "the kinds of information we have in our memories and the processes involved in acquiring, retaining, and using that information." The field of cognitive psychology is a relatively new science. William James had included chapters on attention, memory, and reasoning in his 1890 book *The Principles of Psychology*, but it was not until World War II brought advances in communications, engineering, computer programming, artificial intelligence, and linguistics that human information processing became a subject of experimental study. The "cognitive revolution" that occurred at this time challenged the field of "mindless behaviorism" that, by focusing on stimulus-response reflexes, ignored


10. WESSELLS, supra note 9, at 1-2; see also ULRIC NEISSER, COGNITIVE PSYCHOLOGY 4 (1967) (defining the term "cognition" to include "all the processes by which the sensory input is transformed, reduced, elaborated, stored, recovered, and used").


the role of consciousness altogether. More than any other development, observing how we could analyze the intelligent behavior of a machine encouraged psychologists to abandon a behavioral focus on observed stimulus-response patterns to ask how observed stimuli are processed by the mind. Psychologists such as Herbert Simon, Allen Newell, and George Miller and linguists such as Noam Chomsky rejected the behavioral model of human beings as "bundle[s] of stimulus-response reflexes," preferring instead to see human behavior in terms of knowledge structures, rules, and plans.

As Ulric Neisser described it, minds are run according to "a recipe for selecting, storing, recovering, combining, outputting, and generally manipulating [information]" coming in through the senses.

Cognitive psychology is a mental science that views individuals as essentially rational beings. Although cognitive researchers study the effects of risk, uncertainty, imperfect knowledge, and other variables on the decisionmaking process, these variables establish the parameters for asking, "given them, how individuals will behave rationally." Behavioral economists and cognitive psychologists are not oblivious to the existence of irrational behavior, but they believe that most of what we classify as "irrational" results from malfunctionings in cognitive processes brought about by mental biases, heuristics, computational limitations, and informational barriers. The cognitive approach "is consistent with the information-processing model of man that views maladaptive

15. See generally NOAM CHOMSKY, SYNTACTIC STRUCTURES (1957); GEORGE A. MILLER ET AL., PLANS AND THE STRUCTURE OF BEHAVIOR (1960); ALLEN NEWELL & HERBERT A. SIMON, HUMAN PROBLEM SOLVING (1972).
16. REED, supra note 14, at 7.
18. NEISSER, supra note 10, at 8.
19. Cognitive psychology and psychoanalysis both offer purposive models of human nature in contrast to behaviorism and some social psychologies that tend to view individual behavior as the product of environmental influences.
21. For the seminal work in this area, see Herbert A. Simon, A Behavioral Model of Rational Choice, 69 Q. J. ECON. 99 (1955). Some of the biases and heuristics referred to most often in the economic literature include the confirmatory bias, the hindsight bias, the status quo bias, and framing effects. See, e.g., Jon D. Hanson & Douglas A. Kysar, Taking Behavioralism Seriously: The Problem of Market Manipulation, 74 N.Y.U. L. REV. 630, 645-72 (1999); Sunstein, supra note 6, at 1187-92.
behavior as resulting from dysfunctional rules and heuristics rather than from nonrational, affective processes."22 In this view, genuinely irrational behavior in the form of self-destructive or crazy acts may be the subject of Shakespearean drama, romantic poetry, or extreme psychopathology, but it is not an important area of serious study for the social sciences generally.23 The cognitive model assumes that the vast majority of people aim to act rationally the vast majority of the time. When they do not succeed, we may attribute that failure to incomplete information, uncertain risks, misleading biases, heuristics, or computational limitations on the mind's ability to take in and process information from the world.24

Behavioral law and economists are drawn to the fact that cognitive psychology promises "new and better understandings of decision and choice."25 The effort to revise the economic model of human decisionmaking with findings from cognitive psychology is an especially important development in law, where much of the behavior under study has already, almost by definition, failed the traditional test of rationality: criminal conduct, broken agreements, failed marriages, injuries to person or property, substance abuse, employment discrimination, and all other areas in which individuals appear to make choices that undermine their self-interest and stated preferences. Important recent applications of behavioral research have been carried out in many legal areas, including products liability


23. See POSNER, supra note 2, at 19. [A] superficial objection to the rational-choice model is that some people are not fully rational and that all of us have lapses from rationality. Economics is concerned with explaining and predicting tendencies and aggregates rather than the behavior of each individual person; and in a reasonably large sample, random deviations from normal rational behavior will cancel out.

Id.

24. Ironically, the neoclassical model of rationality, because it does not study individual decisionmaking but aggregate market behavior, actually has greater room for recognizing irrationality in human experience. See POSNER, supra note 2, at 19. In the neoclassical model, the existence of irrational behavior is irrelevant because, at the aggregate level, individual acts of irrationality are understood to cancel each other out. See id.

25. Sunstein, supra note 6, at 1175. See generally Jolls et al., supra note 3. In their use of psychology, behavioral law and economics scholars share an affinity for interdisciplinary social science research that characterized an earlier generation of legal realists, many of whom approached the study of law and politics from a psychological perspective. Some legal realists engaged in behavioral research themselves. See, e.g., Underhill Moore & Charles C. Callahan, Law and Learning Theory: A Study in Legal Control, 53 YALE L.J. 1 (1943).
This rapidly growing body of literature takes as a principal assumption that widening the traditional parameters of rationality to account for cognitive limitations and malfunctionings will transform economic analysis into a more powerful empirical tool for understanding and regulating the behavior of legal actors.

This assumption is overly optimistic. The aspect of cognitive psychology that makes it most appealing to law and economics scholars—namely, its narrow focus on rational thought processes—is precisely what makes it an inadequate model of human nature for legal studies. Cognitive psychology gives us important information about how individuals go about processing information and making decisions, but it fails to provide a full or satisfying account of human decisionmaking or human behavior overall. Despite an appreciation for the subjectivity of experience, the cognitive model overlooks the central role that unconscious affects and motivations play in human decisionmaking. Cognitive psychologists typically take the position that what might look like the effect of motivation and affect on reasoning can be explained mostly, or entirely, in information-processing terms. Yet by minimizing the fact that people are often

26. See Hanson & Kysar, supra note 21, at 630, 693-96.
33. See NEISSER, supra note 10, at 3.
34. See SHEVRIN ET AL., supra note 22, at 7 ("Cognitive psychology has been far less interested in affective processes, motivations, fantasies, dreams, and other similar experiences."); Safran & Greenberg, supra note 22, at 192.
35. See, e.g., KUNDA, supra note 17, at 211 ("Until the late 1980s many doubted that hot [affect-laden] cognition even existed, preferring to explain seemingly hot phenomena in terms of colder mechanisms of information processing."); Dale T. Miller & Michael Ross, Self-Serving Biases in Attribution of Causality: Fact or Fiction?, 82 PSYCHOL. BULL. 213 (1975). In recent years, social cognitive psychologists have become interested in "hot cognition," or cognition influenced by the individual's mood at the time of judgment. See KUNDA, supra note 17, at 211-63; Meichenbaum & Gilmore, supra note 13, at 278 (describing growing research evidence of
driven by emotional factors, cognitive psychology cannot account for behavior motivated by the passions, anxieties, fears, hopes, loves, and hatreds of everyday life. It does not recognize the full importance of self-denial, self-destructive urges, weakness of the will, or ambivalence. It cannot provide anything approaching a satisfactory account of entire spheres of social behavior, including criminal activity, family life, and group discrimination. It cannot, in fact, account for a great deal of behavior even in market settings where we would think people are more consciously inclined to further their material self-interest. It ignores common emotions like revenge, a basic aggressive instinct that Holmes once pronounced the origin of law.

In addition to overlooking the central role of affect in mental life, cognitive psychology adopts a one-dimensional view of unconscious mental processes. The cognitive understanding of the unconscious is limited to rational processes for assimilating and processing information taken in through the senses. The cognitive unconscious "is a fundamentally adaptive system that automatically, effortlessly, and intuitively organizes experience and directs behavior." The idea of a cognitive unconscious explains how we drive a car or remember faces, but it does not explain why, for example, a person might

unconscious "biasing processes" for the role affect plays in modulating cognitions and metacognitions); Paul Slovic et al., Cognitive Processes and Societal Risk Taking, in COGNITION AND SOCIAL BEHAVIOR, supra note 32, at 165. For economic perspectives on affect, see Randall Collins, Emotional Energy as the Common Denominator of Rational Action, 5 RATIONALITY & SOC’Y 203 (1993), Jack Hirshleifer, The Affections and the Passions: Their Economic Logic, 5 RATIONALITY & SOC’Y 185 (1993), and Guillermina Jasso, Choice and Emotion in Comparison Theory, 5 RATIONALITY & SOC’Y 231 (1993). Even the theory of cognitive dissonance, originally developed by Leon Festinger, went from being a theory about how conflicting attitudes can generate unpleasant tension or distress to a theory about maintaining a rational self-perception. See KUNDA, supra note 17, at 217. For an early collection of essays on affect and cognition, see COGNITION AND AFFECT (John S. Antrobus ed., 1970).


suddenly develop an inability to eat in public without experiencing debilitating physical symptoms, be unable to complete a major writing assignment, or subject himself repeatedly to disappointment in love. Given its narrow focus on information processing and other rational processes, cognitive psychology does not account fully for common psychological phenomena, such as reaction-formation, denial, rationalization, obsession, paranoia, dissociation, phobia, repression, regression, and transference, all of which operate to some extent at an unconscious level and cannot be explained by cognitive processes alone. Overall, because cognitive psychology remains "explicitly concerned with the fashion in which incoming stimulus information is processed in order to extract meaning from it," it cannot grapple in any serious way with the effect that unconscious emotions, motivations, and conflicts have on everyday conscious behavior.

Overlooking the central role that unconscious affects and motivations play in human decisionmaking creates serious problems for the study of law. To begin with, understanding the irrational factors in human behavior is crucial for a fully-informed consideration of specific legal rules and practices. We may not need a psychoanalytically-informed model of human behavior to make running a stop sign a crime, but most regulatory efforts are not so straightforward. Although people like to think of themselves as acting rationally and as living in a rationally-organized world, rarely does human behavior resemble the calculated moves on a chessboard. We want law to be rational, but we also need to know it operates in a world—and is the product of a world—that is not always rational and where meaning is not always transparent. Understanding this does not mean that law must take account of unconscious feelings and motivations in every case. But it does compel greater appreciation

40. See SHEVRIN ET AL., supra note 22, at 5. The authors explain:
One of our patient-subjects described... his inability to eat in public without experiencing an intense headache, palpitations, a sudden need to defecate, sweatiness, and shortness of breath. He had no way of understanding why he should be so anxious and distressed when performing so simple an act as eating in public, something he had been doing easily for years. He was willing to concede that his behavior was indeed irrational.

Id.

41. Safran & Greenberg, supra note 22, at 196.

42. Some social cognitive psychologists attempt to grapple more directly with the influence of motivations and affect on decisionmaking. See, e.g., KUNDA, supra note 17. Ironically, the author of the seminal work in the field, Ulric Neisser, emphasizes the importance of psychodynamic factors. NEISSER, supra note 10, at 279-305.
for the complexity of human behavior and the likelihood that in many situations individuals will not respond in a systematically rational way to legal incentives and disincentives.

When Holmes established the reasonable person standard in law, for example, he never believed that the standard accurately reflected the reasonableness inherent in human nature. To the contrary, he viewed the law as a vehicle by which civilizing forces could be brought to bear on the elemental human passions and instincts. Efforts to civilize can become unjust or ineffective, however, when law ignores the conditions of human nature. This concern becomes most pressing when the conduct being regulated is complex or the consequences of law-breaking are severe. We should want to know more about unconscious motivations and emotions in considering legal rules governing, for example, the death penalty, the standard of consent in date rape, the reliability of criminal confessions, the availability of teenage abortion, the intractable problems of racial discrimination, the dynamics of sexual harassment, and the best interests of the child. Just as a psychological theory incapable of confronting the complexity and obscurity of human behavior will not help us to understand the causes and meaning of false confessions, parental ambivalence, or women's inequality in the workplace, so too a legal system blind to such complexities will likely fail in its efforts to regulate such conduct. Cognitive psychology leaves us ill-equipped to evaluate commonplace legal issues such as allegations of discrimination, predictions of future dangerousness, assertions of parental unfitness, and claims for emotional pain and suffering.

Perhaps more fundamentally, cognitive psychology reinforces a model of rational decisionmaking that, standing alone, has an impoverishing effect on the basic normative structure of our constitutional order. In a world where unconscious feelings and motivations do not matter, self-reflection is not an important virtue. As long as people are transparent to themselves and others, sustained self-inquiry is not essential for deliberative decisionmaking on matters of personal or public importance. "The rational survives

43. See Dailey, supra note 39, at 439-46.
44. This list obviously represents a very small sample. I leave to future work the task of distinguishing in a systematic manner those doctrinal areas where the complexity of human nature should be taken into account for purposes of legal decisionmaking and those where it need not be an important factor.
45. But see supra note 36.
46. See generally Jonathan Lear, Open Minded: Working Out the Logic of the Soul (1998), for a critique of transparency.
in the contemporary social sciences but, except in [non-cognitive] psychology, the link with reflective capacity has largely dissolved, and the idea of a virtuous life derived from reason seems to have disappeared altogether. 47 In such a rational world, our conception of individual rights artificially narrows. For example, the right of free speech is valued because it protects the communication of known preferences and ideas rather than because it fosters the personally and politically transformative effects of public debate on matters of collective importance. Protection for personal autonomy, too, loses its connection to a meaningful conception of individual choice that accounts for the unconscious emotions, motives, and conflicts that disrupt efforts at self-knowledge and self-direction. 48 Without an understanding of these irrational elements in human nature, the ideal of individual autonomy becomes a shallow, even false and rationalized, version of self-government and self-control. Ultimately, we sacrifice a sense of citizenship as involving more than the satisfaction of perceived preferences, one in which membership in the polity involves an important degree of personal self-reflection and public deliberation on issues of social and political importance.

In a world where people are often motivated to act for reasons they do not well understand or know, the loss of self-reflection as an important virtue in public life can threaten the very foundations of democratic self-government. The failure to attend to the irrational elements in human nature leaves us collectively vulnerable to irrational outbreaks of a potentially violent and politically-destabilizing character:

If the source of irrationality lies within, rather than outside, the human realm, the possibility opens up of a responsible engagement with it. Psychoanalysis is, in its essence, the attempt to work out just such an engagement. It is a technique which allows dark meanings and irrational motivations to rise to the surface of conscious awareness. They can then be taken into account, they can be influenced by other considerations, and they become less liable to disrupt human life in violent and incomprehensible ways. 49

The history of McCarthyism and the internment of Japanese-Americans during World War II are only two recent examples in this

47. SMELSER, supra note 20, at 169.
49. LEAR, supra note 46, at 31.
country of the potential for irrational fears to surface in the political realm. The fact that the successes of McCarthyism depended in part on the suppression of speech illuminates the important role that free expression can play in integrating irrational feelings and desires into the democratic life of the polity. By allowing individuals the opportunity to express themselves in speech rather than action, and by giving the collectivity the opportunity to work through ideas that threaten to disrupt collective life, the right of free speech helps to control the effect of irrational emotions and motives in the public sphere. A psychoanalytic understanding of irrationality speaks to the deep interconnection between the constitutional values of personal self-expression and political debate.

Finally, the cognitive model also obscures the importance of family life to the development of democratic citizens and, most especially, to the cultivation of civic virtue in future generations. This model can lead us to overlook the importance of early affective relationships to the development of adult citizens equipped with the emotional and reflective capacities to engage in public discourse, rational deliberation, and moral decisionmaking. Autonomous, rational citizens do not automatically emerge, full-grown, into the world. Legal and political theorists in recent years have stressed the importance of social embeddedness to the early acquisition of moral values, but the inculcation of substantive moral values is not the only civic function that families serve. Individuals develop the psychological capacities for autonomy and rationality within the intimate, affective relationships of the early childhood years, and especially within the earliest emotional exchanges with a maternal figure. Psychoanalytic work on object relations supports the idea

50. These two First Amendment values are generally considered independent. See, e.g., OWEN M. FISS, THE IRONY OF FREE SPEECH 3 (1996) ("Speech is valued so importantly in the Constitution, I maintain, not because it is a form of self-expression or self-actualization but rather because it is essential for collective self-determination.").


We are not saying here that their treatment in babyhood causes a group of adults to have certain traits—as if you turned a few knobs in your child-training system and you fabricated this or that kind of tribal or national character. In fact, we are not discussing traits in the sense of irreversible aspects of character. We are speaking of
that a strong sense of an individual self, distinct from the world, develops from the infant's relationship with the primary caregiver.54

"The individual," as one psychoanalyst describes, "begins to emerge from the infant-mother dyad largely in response to the communications" between child and caretaker.55 How citizens acquire the capacity for rational thought, autonomous decision-making, and the habits of critical thinking, how subsequent relations in the family, school, and work can build on or disrupt the development of these capacities,56 and how law can inhibit or facilitate these capacities, are all questions that, because they involve emotional and dynamic factors not readily accessible to conscious thought, cannot be answered by cognitive psychology alone.

II. THE SCIENCE OF IRRATIONALITY

A behavioral economist might defend the use of cognitive psychology on the simple ground that it is the only empirical science of mental processes that now exists. In that view, the recognition of unconscious emotions and motivations leads inexorably to the untenable conclusion that "people's behavior is unpredictable, systematically irrational, random, rule-free, or elusive to social goals and values and of the energy put at their disposal by child-training systems. Such values persist because the cultural ethos continues to consider them "natural" and does not admit of alternatives. They persist because they have become an essential part of an individual's sense of identity, which he must preserve as a core of sanity and efficiency. But values do not persist unless they work, economically, psychologically, and spiritually; and I argue that to this end they must continue to be anchored, generation after generation, in early child training; which child training, to remain consistent, must be embedded in a system of continued economic and cultural synthesis.


55. LEAR, supra note 46, at 134; see also HANS W. LOEWALD, PAPERS ON PSYCHOANALYSIS 278 (1980) ("The unit of a psychoanalytic investigation is the individual human mind or personality . . . . The individual's status in this regard, however, is questionable and cannot be taken for granted.").

The behavioralist contends that the concept of irrationality itself is inherently unscientific and thus cannot provide a sound basis for legal rules or policy. In this view, cognitive psychology offers the best empirical account of human rationality that we have.

This Section explains why such contentions are mistaken. I argue that the field of psychoanalysis provides a clinically-grounded, empirical, and comprehensive—if imperfect—model for understanding irrational behavior and mental life generally. Despite attacks on Freud in the popular press and the managed-care boardroom, many basic psychoanalytic concepts are now considered the mainstay of clinical psychology, including repression, defenses, the unconscious, transference, regression, childhood sexuality, projection, paranoia, identification, internalization, and rationalization. By studying child development, adult psychology, psychopathology, and the interaction of these psychological phenomena with biological and somatic processes, psychoanalytic researchers and clinicians have identified the existence of certain patterns of unconscious processes. This Section reviews psychoanalytic knowledge about the basic mental processes underlying irrational behavior and the work that is being done by clinical, research, and experimental psychoanalysts to establish the scientific foundation for these ideas. As this brief review shows, the body of knowledge we call psychoanalysis cannot credibly be dismissed as the product of misguided speculation, but rather is the result of careful clinical work and scientific research over more than a century.

The concept of irrationality has been the centerpiece of psychoanalysis since the earliest days of Freud's career. Anna O, arguably the first psychoanalytic patient, caught Freud's attention with a cluster of bizarre symptoms, including paraphrasia, squints, disturbances of vision, paralyses, fugue states, nervous cough, transitory hallucinations, and a sudden inability to speak her native German language. In his early work on psychopathology, Freud

57. Sunstein, supra note 6, at 1175.
59. See infra text accompanying notes 63-78.
60. See JOSEF BREUER & SIGMUND FREUD, STUDIES ON HYSTERIA, reprinted in II THE STANDARD EDITION OF THE COMPLETE PSYCHOLOGICAL WORKS OF SIGMUND FREUD 1893-1895, at 22-28 (James Strachey trans. & ed., 1955). Anna O was actually treated by Freud's friend, Josef Breuer. The treatment was reported to Freud several months later. See id. at x-xi.
came to the conclusion that irrational occurrences such as paralyzed legs, compulsive handwashing, or Anna O's mysterious behaviors were neither organic illnesses nor malingering, but instead were meaningful expressions of feelings and desires that conflicted with the individual's conscious intentions, values, and beliefs.  

Freud's interest in understanding the phenomenon of irrationality in human life led him to spend most of his career exploring the unconscious instinctual drives and repressed infantile wishes that give rise to symptoms, dreams, parapraxes, and other normal lapses in rational thought processes.

Freud devised the term "primary process" to describe the mechanisms that characterize the formation of symptoms, dreams, and the arena of unconscious mental life generally. The primary process is so named because it dates back to the earliest years of life. According to Freud, the main characteristics of the primary process are imagistic thinking, the condensation of disparate mental elements into composite unities, and the displacement of psychic energy or affect from one idea to another. Freud also believed that the primary process, which dominates mental life in the infantile period, is regulated by the pleasure principle: the innate tendency of the human organism to seek immediate gratification of instinctual urges without regard for external reality. Freud concluded that eventually the instinctual drive for immediate gratification comes into conflict with restraints imposed by external reality. As the infant develops,
the primary process increasingly gives way to more rational, abstract, and ordered forms of thinking. The secondary process, as it is called, allows the infant to manage the frustrations imposed by the real world that prevent the infant from obtaining immediate satisfaction of instinctual urges. The crying infant of six weeks develops into the young child capable of tolerating the frustration of waiting for her food to be prepared. As the child increasingly adapts to the demands of external reality, "[t]he secondary process progressively tames and inhibits the effects of the primary process. It is ruled by the reality principle, as a modification of the pleasure principle, in the service of adaptation and survival." Although Freud often referred to the opposition between instinctual drives and the ego, the idea that the ego serves an important role in obtaining external gratification for the inner needs of the organism was present in Freud's thought from the beginning.

Freud's belief that rational thought, or the secondary process, develops in service of the individual's instinctual drive gratification has been questioned by later psychoanalysts. Ego psychologists such as Heinz Hartmann emphasize the role of autonomous ego capacities, including motility, memory, and perception, in the development of the secondary process. In this view, "secondary-process thinking is not simply derived from the primary-process 'drive organization of memories' but includes 'intrinsic maturational restraining and integrating factors.'" The infant's exercise of perceptual and motor functions promotes the development of psychic mechanisms for assimilating and organizing information coming in from the senses. Still other psychoanalysts whose work focuses on object relations, or relations with significant others, emphasize the infant's earliest

58. at 317, 319 ("A person's reality grows coincidentally with the development of the ego, and it was reality that was seen as preventing immediate satisfaction by prohibition of drive action.").
68. See Schimek & Goldberger, supra note 65, at 211.
69. Id.; see also FREUD, supra note 63, at 566 ("The bitter experience of life must have changed this primitive thought-activity into a more expedient secondary one.").
70. FREUD, supra note 63, at 567-68.
71. See Schimek & Goldberger, supra note 65, at 213 ("Hartmann and Rapaport stressed that one had to assume that the secondary process was present from the beginning of development and had its roots in the biological preadaptedness of the human organism to its 'average expectable environment,' an environment that is intrinsically social as well as physical.").
72. Id.
73. Freud emphasized, too, that the roots of ego structure are in the perceptual, or "Pcpt.," system. SIGMUND FREUD, THE EGO AND THE ID 14 (Joan Riviere trans. & James Strachey ed., 1962) ("We shall now look upon an individual as a psychical id, unknown and unconscious, upon whose surface rests the ego, developed from its nucleus the Pcpt. system.").
relationship to its caretaker as an important element in secondary-process development. Actual interactions between child and parents, "through identification and internalization, become the basis of enduring cognitive structures and of the individual's construction of his or her inner reality." In this regard, Hans Loewald describes how "the psychological constitution of ego and outer world go hand in hand":

The neonate does not as yet distinguish an ego from an outer world. . . . Ego, id, and external reality become distinguishable in their most primitive, germinal stages. This state of affairs can be expressed either by saying that "the ego detaches itself from the external world," or, more correctly: the ego detaches from itself an outer world. Originally the ego contains everything. Our adult ego feeling, Freud says, is only a shrunken vestige of an all-embracing feeling of intimate connection, or, we might say, unity with the environment.

Whether the emphasis is on instinctual drive gratification, autonomous ego development, or object relations, the important point is that the psychoanalytic model recognizes that the rationality of the secondary process develops in the context of the more primitive, primary thought processes characteristic of the infantile period.

Psychoanalysis teaches that the adult capacity for rational thought never entirely replaces more primitive modes of thinking and feeling. No matter what their orientation, all psychoanalysts agree that adult rational thought remains subject to disruption by these more primitive, unconscious factors, from the most trivial slip-of-the-tongue or missed appointment to the gravest errors in judgment or behavior. On the whole, psychoanalysts adhere to "the persistence of the primary process throughout life," a condition most evident at times of stress, serious conflict, physical illness, romantic exhilaration, and religious ecstasy. Sensible economists and cognitive psychol-

74. Schimek & Goldberger, supra note 65, at 216.
75. LOEWALD, supra note 55, at 5 (citation omitted).
76. Schimek & Goldberger, supra note 65, at 214.
77. See Phyllis Tyson & Robert L. Tyson, Development, in PSYCHOANALYSIS, supra note 58, at 395, 396.

Stress, conflict, danger, or frustration evoke modes of functioning more typical of earlier developmental phases. This is usually referred to as "regression," wherein the individual reverts, or retreats, to safer forms of satisfaction (drive regression), modes of relating (regression in object relations), sets of standards (superego regression), or ways of thinking (ego or cognitive regression).

Id; see also Schimek & Goldberger, supra note 65, at 214.

Psychoanalysts view the development of mental life as "a continuum extending from the primitive, drive-dominated, and unrealistic primary-process mode (with only the
ogists would agree that childhood and adolescence are periods during which individuals acquire the habits of rational thought, but the habits, once acquired, are treated as essentially fixed and uniform. What economists and cognitive psychologists miss is that rationality is not a stable structure we achieve, once and for all, but a continual process of mediating between unconscious feelings, emotions, and desires, on the one hand, and external reality, on the other. Moreover, the persistence of the primary process is a fact to be embraced rather than deplored. Emotions and thought processes from this earliest period in our lives, particularly the "oceanic feeling of oneness" with another or with nature, are what bring romantic joy, creative inspiration, friendship, and religious meaning to our adult lives. We need to be aware that modes of thinking from this early period threaten to disrupt the rational order of our lives in potentially destructive ways, but we cannot, nor should we wish to, do away with them altogether.78

Establishing the scientific basis for these psychoanalytic ideas obviously poses special problems for researchers. Psychoanalysis deals primarily with unconscious mental events and processes not amenable to direct study. Experimental research on perception, cognition, and subliminal awareness has made it clear that unconscious processes can be studied in the laboratory, but psychoanalysis involves the more complex areas of unconscious emotions and motivations. Despite obstacles, however, four avenues of research show promise.

First is clinical psychology itself. The most important aspect of clinical research still remains the careful observations of the experienced analyst in the individual case study. The efficacy of classical psychoanalysis as a therapeutic endeavor is limited to those individuals with "analyzable" problems and with the financial and personal resources to undergo intensive treatment over a period of many years. As a research tool, however, there is no question about the efficacy of the psychoanalytic method. "The process of psychoanalysis remains unparalleled as a method whereby the

most rudimentary secondary-process accompaniment) through intermediary stages—where primary and secondary processes liberally coexist—to a mode characterized by a dominance of secondary process, though presumably with some minor influx of the primary process.

Schimek & Goldberger, supra note 65, at 214.

78. See id. ("In fact, the absence of primary-process indications in a patient's presentation is to be carefully assessed, as it may indicate severe pathology, in the form of a reliance on too rigid a defense structure.").
workings of the human mind may be observed, a method in which human subjectivity comes under scientific scrutiny.79 How to organize and synthesize the material gathered in the course of psychoanalytic treatment poses the greatest challenge, given the complexity of the material and concerns for patient privacy. Steps are being taken to bring greater scientific objectivity to the psychoanalytic process and results, including audio-taping one or more analytic sessions for later review.

Second, researchers in certain areas employ the method of observation, the most important example being observation of child development. In the history of psychoanalysis, child observation began with Freud's observation of his own children and grandchildren, and continued with work by researchers such as Anna Freud, Margaret Mahler, and Daniel Stern.80 Third, in addition to the naturalistic methods of observation, some formal experimental research is also taking place. "Carefully controlled experimental studies of attention, perception, memory, learning, dreaming, sensory deprivation, and hypnotic states have made use of tests and laboratory techniques developed outside of psychoanalysis and have significantly widened the scope of psychoanalytic knowledge."81 Finally, researchers in the area of neuroscience are beginning to explore the material foundation for psychoanalytic events and processes. Developments in neuro-imaging present the possibility of some day grounding observed psychoanalytical phenomena in brain functioning.82 Recent advances in neuroscience bring us back to the


81. Mayer, supra note 79, at 530.

question of the physical domain of mental life that occupied Freud’s attention in his early years. Research on all these fronts—clinical, observational, experimental, and neuroscientific—contributes to the task of building a comprehensive and empirically-grounded body of psychoanalytic knowledge directed to understanding the sources and dynamics of irrationality in human nature.

III. THE ECONOMICS OF MIND

There are many ways of looking at irrational decisionmaking and behavior from the psychoanalytic perspective. A dynamic approach, for example, looks at the mechanisms and consequences of repression and conflict in psychic life. A developmental approach focuses on the importance of early childhood experiences and maturational forces to adult experience. In this Section, I suggest that the economic perspective offers a useful framework for understanding how the transference of emotions and desires from one context to another gives rise to irrational thoughts and behavior. What the economic model offers us is a useful conceptual framework, or metaphor, for understanding how internal transactions, and in particular the displacement of unconscious emotions, come to influence our transactions in the external world.

As originally conceived by Freud, displacement was an economic concept that referred to the mobility of psychic energy in the mental system. As originally conceived by Freud, displacement was an economic concept that referred to the mobility of psychic energy in the mental system.83 The economic theory of the mind originated with Freud’s early attempt to work out the neurological basis of mental life. In 1895, five years before the publication of *The Interpretation of Dreams*, Freud wrote the *Project for a Scientific Psychology*.84 The Project—never completed and never published during Freud’s lifetime—was an effort to create “a psychology that shall be a natural science,” one that looks at “psychical processes as quantitatively


In the United States, neurologically informed psychoanalysts such as Reiser at Yale, Basch and Gedo in Chicago, Schwartz in Washington, D.C., Sashin in Boston, Moore in Atlanta, and Hadley in Wisconsin, to name just a few, have sought to establish further clinical correlations between mind and brain, working toward a unified theory of brain and behavior.

Id. 83. FREUD, supra note 63, at 595-97.

determinate states of specifiable material particles."\textsuperscript{85} Freud's interest in the physical forces underlying mental life followed naturally from his time in the late 1870s at the Vienna Physiological Institute, where he worked and studied under Ernst Brucke.\textsuperscript{86} The Project was Freud's attempt "to discover what form the theory of psychical functioning will take if a quantitative line of approach, a kind of economics of nervous force, is introduced into it."\textsuperscript{87} As James Strachey observed, it is a "remarkable truth that the Project, in spite of being ostensibly a neurological document, contains within itself the nucleus of a great part of Freud's later psychological theories."\textsuperscript{88} The economic model, which began as a theory of the physical forces underlying psychological phenomena, very quickly became a theory of psychological forces standing alone.\textsuperscript{89}

As developed by Freud, the economic theory conceptualizes mental life as an organized system of energy flow. The economic theory focuses on how instinctual needs originating in somatic processes generate a level of psychic energy necessary to meet essential physical needs arising from within and to manage perceptual stimuli incoming from the world.\textsuperscript{90} While individuals experience a relatively constant level of psychic energy during normal waking states, this can change when instinctual urges or environmental stimuli increase. Significant increases in psychic energy produce a state of mental tension that is usually, although not always,\textsuperscript{91} accompanied by subjective sensations of "unpleasure."\textsuperscript{92} When the level of psychic tension reaches a certain threshold—for example,

\textsuperscript{85} Id. at 295.

\textsuperscript{86} Along with Emil Du Bois-Reymond, Hermann Helmholtz, and Carol Ludwig, Brucke was a member of the famous Helmholtz School, "one of the most remarkable groups of scientific workers the world has ever seen." BRET'T'S HISTORY OF PSYCHOLOGY 635 (R.S. Peters ed., 1962). This group of scientists shared an opposition to vitalism and a commitment to a physiological psychology that emphasized the material aspects of mind over transcendent life forces. See generally Dailey, supra note 39.

\textsuperscript{87} James Strachey, Editor's Introduction, in I THE STANDARD EDITION, supra note 84, at 283, 283.

\textsuperscript{88} Id. at 290.

\textsuperscript{89} Although Freud never again pursued the neurological basis of mental life, his early work on the Project illuminates the important way in which psychoanalysis, with its emphasis on instinctual urges, bodily functions, and developmental capacities, attempts to traverse the seemingly unbridgeable gap between the physical and psychological realms. See Alvin Frank, Metapsychology, in PSYCHOANALYSIS, supra note 58, at 508, 509 (Metapsychology "is a theory of mind as a bio-psychological entity.").

\textsuperscript{90} See FREUD, supra note 63, at 565.

\textsuperscript{91} Increases in tension can also be associated with pleasure. See Frank, supra note 89, at 513.

\textsuperscript{92} See FREUD, supra note 63, at 598.
when an individual becomes hungry—the instinctual need becomes conscious, and the individual focuses his or her attention on ridding the mind of this unpleasurable tension. An infant, with only primary process thought mechanisms available, will seek immediate discharge of this excess tension through hallucinatory or motor activity such as crying and moving. As the nervous system matures, the excess tension can be taken up by the more developed secondary process mechanisms of the ego, which bind excess energy in a way that allows the individual to tolerate the increased level of tension until discharge or removal of the stimulus can occur.

Although the economic theory has fallen into relative disfavor in psychoanalytic circles, its ideas about psychic tension and the mobility of affect can still help us to understand the several ways in which minds are vulnerable, or even prone, to irrationality. As already described, irrationality can result from excessive levels of psychic energy caused by increases in inner needs or environmental stimuli. Psychic tension can grow so great that the mind's capacity for binding, or managing, the increased excitation in the system will be overwhelmed. As hunger turns to starvation, for example, the capacity of the ego to tolerate the excess tension reaches its limit, and the mind, now flooded with excitation, regresses to primary process mechanisms such as hallucinatory wish-fulfillment and motor discharge. In law, this form of massive system overload is reflected in doctrines such as temporary insanity and diminished capacity. At least in certain limited doctrinal fields, courts are relatively good at recognizing that, in times of obvious stress or trauma, individuals do not always behave in a rationally purposive manner.

Irrationality, however, is not only a theory of quantitative excess occurring at times of extraordinary mental stress or trauma. The mobility of psychic energy—the tendency of unconscious emotions to be displaced or transferred from one context to another—leads to more everyday gaps in conscious thought and behavior that cannot be explained in rational terms. Common occurrences such as forgotten names, day-dreams, self-defeating behavior, and certain types of reckless activity all point to the existence of unconscious feelings and desires that disrupt conscious thought and behavior in seemingly

93. "An overabundance of energy relative to the psychic organizations' capacities for accumulation and discharge is hypothesized as producing a traumatic state, a profound overstimulation of the mental apparatus." Frank, supra note 89, at 512.

inexplicable ways. The economic theory gives us a model for understanding these normal, everyday processes in terms of unconscious emotions and wishes being easily displaced, or transferred, onto conscious ideas and behavior. Freud described ideas as becoming "cathected," or invested, with emotional energy derived from unconscious origins.95 He observed that this emotional energy can be displaced from one idea to another, or, in the case of hysteria, from the mind to the body.96 The phenomenon of displacement is a matter of common observation: we all know that anger at one’s boss can be displaced onto a spouse, disappointment with oneself can be displaced onto a child, childhood rage toward a parent can be displaced onto a therapist. Ideas that are associated in time or subject matter, for example, will facilitate the transfer of affect.97 When it occurs, displacement is experienced as a momentary, inexplicable gap, whether trivial (a slip of the tongue) or substantial (the loss of a job or marriage) in the individual’s sense of purposive thought and behavior. These gaps can also be experienced as leaps forward, such as what happens at moments of creative breakthrough. In the psychoanalytic view, the important point is that these intermittent gaps and leaps characterize minds functioning as they should.98

Freud’s economic views on the displacement of emotional energy form the core of a much broader theory of transference that is a central component of psychoanalytic theory and practice today. In the traditional clinical view, transference is the tendency to repeat, in a current setting, attitudes, feelings, impulses, and desires experienced or generated in early life in relation to important figures in the individual’s development. These original figures are primarily the parents but may include other family members or even persons outside the family who have assumed important functional roles in actuality.99

Contemporary psychoanalytic theorists view transference more in terms of the interpsychic relationship between child and parent, or between patient and analyst, than as a phenomenon that occurs solely within the mind of the individual. Object relations theorists, for example, study the role that important early figures, in particular the maternal figure, have in constituting the child’s emerging sense of

95. FREUD, supra note 63, at 595.
96. Id. at 594.
97. See id. at 596.
98. See generally LEAR, supra note 46.
Unlike traditional psychoanalytic theory, which focuses on intrapsychic forces, object relations theorists take into account the importance of early relationships to the child's maturing ego. The earliest exchanges of meaning occur between the maternal figure and infant, a relationship deemed central to the creation of psychological structure, including secondary process, ego defenses, and the general capacity of the individual to handle the stress and frustration of living in the world.

Broadly speaking, transference captures the process by which the individual shifts internal meaning to the world. In this broad sense, transference stands for the dynamic mechanism of exchange by which feelings, emotions, and desires internal to the person are enacted in the world. The phenomenon of transference in psychoanalytic thought is broader than the view of perception in cognitive psychology, although both approaches take the individual as an active participant in the creation of his or her perception of the world. Cognitive psychologists see this meaning strictly in terms of cognitive processes; psychoanalysts, on the other hand, see this as a recreation of deeply embedded emotions, fantasies, wishes, and instinctual needs. The psychoanalytic view emphasizes the emotional tenor of transference, as well as the dynamic relationship between the individual and the world. When this emotional displacement gives positive and productive energy to love, work, collective endeavors, and creative achievement, we find life enriched and open to possibilities. When transference becomes enacted in the world in a wildly distorted, fixed, or self-defeating way, we observe that behavior has become irrational.

The concepts of displacement and transference help to explain the centrality of the irrational in normal, everyday mental life. The problem with behavioral law and economics is not its enthusiasm for rationality per se. Any approach to the study of law that did not recognize and pursue rational analysis and outcomes would hardly be

100. See generally GREENBERG & MITCHELL, supra note 54. For works by object-relations theorists, see FAIRBAIRN, supra note 54; KLEIN I, supra note 54; KLEIN II, supra note 54; WINNICOTT, supra note 54.

101. "[Psychoanalytic object relations theories are] defined as those that place the internalization, structuralization, and clinical reactivation (in the transference and countertransference) of the earliest dyadic object relations at the center of their motivational (genetic and developmental), structural, and clinical formulations." Otto F. Kernberg, Psychoanalytic Object Relations Theories, in PSYCHOANALYSIS, supra note 58, at 450, 450.

102. See LEAR, supra note 46, at 71-72.

103. See id. at 140.
useful for legal studies. Rather, the problem lies in the failure to see how the adult capacity for rational thought is inherently subject to regular disruptions in ways that affect our behavior in the world. Psychoanalytic views on the mobility of affect and the transference of emotions help us to see how unconscious factors give rise to irrational thought and behavior. The task from the psychoanalytic point of view is to utilize cognitive processes to bring these unconscious factors to light and under conscious control. The task from a legal point of view does not substantially differ. As Holmes recognized, understanding unconscious factors is essential to designing effective legal rules and policies.\textsuperscript{104} It is one of the small ironies of the law and economics literature that the most well-known model for exploring the parameters of rationality is the "Prisoner's Dilemma," in which two prisoners charged with the same crime and facing possible steep prison terms calculate whether it is better to confess or remain silent.\textsuperscript{105} One could hardly imagine a real-life situation more prone to emotional distortions in decisionmaking brought about by fear, regret, guilt, rage, denial, confusion, and despair. Law and economics scholarship should take the important step of recognizing the dynamic interplay between unconscious emotions and motives, on the one hand, and our material transactions in the world, on the other.

**CONCLUSION**

At first blush, economics and psychoanalysis appear to be situated at opposite ends of the social science spectrum. Economics studies the world of rational actors in the public marketplace, while psychoanalysis studies the private world of irrational feelings and motivations. Economics aims to rationalize behavior at the market or firm level, while psychoanalysis emphasizes the dynamics of individual emotions and behavior. Applied economics also rests its reputation on the rigor of its scientific methods, which include experimental research, quantifiable data, and testable hypotheses.\textsuperscript{106} Psychoanalysis, on the other hand, has gained a reputation for subjective methods, nonquantifiable data, and unverifiable findings.

\textsuperscript{104} See Dailey, supra note 39, at 447-56.

\textsuperscript{105} See, e.g., Colin F. Camerer, Progress in Behavioral Game Theory, J. ECON. PERSP., Fall 1997, at 167, 170.

\textsuperscript{106} See Matthew Rabin, Psychology and Economics, 36 J. ECON. LITERATURE 11, 12 (1998) ("Mainstream economics employs a powerful combination of methods: methodological individualism, mathematical formalization of assumptions, logical analysis of the consequences of those assumptions, and sophisticated empirical field testing.")
Yet despite these traditional differences in subject matter and methodology, the gap between the two fields has begun to narrow. The shift within economics from the study of aggregate market behavior to the psychology of individual decisionmaking and the shift within psychoanalysis to more objective research methods are two areas of recent convergence. The economic theory raises the possibility of a third connection: the idea that irrationality derives in part from the normal displacement of unconscious emotions and motivations onto our everyday lives in ways that affect our material transactions in the world. The day will hopefully come when law and economic scholars recognize that irrationality is not simply the product of distortions in cognitive thinking, but a defining element of well-functioning minds.