Moody Investing and the Supreme Court: Rethinking the Materiality of Information and the Reasonableness of Investors

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This Article critically analyzes the judicial decisions and reasoning of the United States Supreme Court and lower courts accepting certain defenses in securities fraud litigation. This Article develops how and why the core notions of materiality of information and the reasonable investor should be revised in light of recent empirical data, experimental evidence, and theoretical models of moody investing. This Article proposes modifying three recent developments in materiality doctrine to take into account moody investing. In particular, this Article argues that current judicial treatment of puffery is flawed because it neglects the power of puffery to alter moods. This

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 0-226-64595-9/2005/0013-0005$10.00

Article also recommends modifying the judicial "total mix" analysis of the materiality of information to include a "total affect" analysis of information. Finally, this Article proposes refining the judicially created so-called "bespeaks caution" doctrine and statutory safe harbors codifying it to inquire whether so-called "meaningful cautionary language" is infused with affect.

I. INTRODUCTION

For better or worse, securities litigation and enforcement have recently become growth industries, with numerous allegations of securities fraud and malfeasance at, but certainly not limited to Enron, WorldCom, the research analyst departments of many investment banks, and several mutual funds.[1] The United States Supreme Court and lower courts have gradually accepted over the last two decades certain defenses in securities fraud cases that make it likely that many such cases will be dismissed. But, publicity from those corporate and financial scandals led to Congress nearly doubling the Securities and Exchange Commission's budget from $439 million in 2002 to $776 million in 2003.[2] Congress also passed the Sarbanes-Oxley Act of 2002 which, among other things, targeted specific funding for the SEC to hire at least two hundred attorneys, accountants, and other professionals, and for enhancing information technology;[3] extended the statute of limitations for private securities fraud actions;[4] and created a new crime of securities fraud.[5] Thus, securities litigation and enforcement will continue as booming legal practice areas long after the notoriety of recent financial scandals fades.

The level and nature of securities litigation and enforcement do and should depend on the level and nature of securities investing. In particular, standard neoclassical financial economics models envision rational actors cognitively engaging in securities investing to maximize their expected utilities.[6] But the real nature of securities

[1] See generally Donna M. Nagy, et al, *Securities Litigation and Enforcement: Cases and Materials* (West, 2003).

[2] Id at 618.

[3] 15 USCA § 78 (kk) (2002).

[4] 18 USC § 1658 (b) (2002).

[5] 18 USC § 1348 (2002).

[6] But see Lourdes Beneria, *Economic Rationality and Globalization: A Feminist Perspective*, in Marianne A. Ferber and Julie A. Nelson, eds, *Feminist Economics Today: Beyond Economic Man* 124 (Chicago, 2002) (pointing out how important emotions and moods are in actual human behavior) and Richard H. Thaler, *From Homo Economicus to Homo Sapiens*, 14 J Econ Perspectives 133 (2000) (predicting that rational and unemotional homo economicus will evolve into homo sapiens, a quasi-rational and emotional human being).

investing can be quite moody.[7] At this point, it helps to differentiate among three distinct, but related concepts: affect, emotion, and mood. Affect refers to a general and pervasive "feeling state that people experience, such as happiness or sadness. It may also be viewed as a quality (e.g. goodness or badness) associated with a stimulus."[8] Emotions are "reactions to motivationally significant stimuli and situations, including three components: a cognitive appraisal, a signature physiological response, and phenomenological experiences."[9] Moods refer to "longer-duration background states of the physiological (autonomic) system and the accompanying feelings."[10]

It also helps to distinguish between expected emotions, which are predictions of future emotional consequences of the outcomes from decisions, and immediate emotions, which are emotions that individuals experience while making decisions.[11] This Article focuses on immediate moods, investors feel before or during investing, and therefore complements my previous work on emotions, which are fully and correctly expected before or during the decision making process.[12]

[7] See Lucy F. Ackert, et al, *Emotion and Financial Markets*, Second Quarter Economic Review 33 (Federal Reserve Bank of Atlanta, 2003) (suggesting that emotions can enhance financial decision making); and Michael Dowling and Brian M. Lucey, *The Role of Feelings in Investor Decision-Making*, unpublished manuscript (2003) (synthesizing empirical research on the impact of emotions on stock prices and developing a theoretical basis for understanding that empirical research). See also David Dreman, *The Influence of Affect on Investor Decision-Making*, 5 J Behavioral Fin 70 (2004) (examining investors' reliance on affect under information overload).

[8] Melissa L. Finucane, et al, *The Affect Heuristic in Judgments of Risks and Benefits*, 13 J Behav Dec Making 1, 2 n.1 (2000).

[9] R. Hastie, *Problems for Judgment and Decision Making*, 52 Ann Rev Psychol 653, 671 (2001).

[10] Id.

[11] See, for example, George Loewenstein and Jennifer S. Lerner, *The Role of Affect in Decision Making*, in Richard J. Davidson, et al, eds, *Handbook of Affective Sciences* 619, 620-36 (Oxford, 2003) (proposing this distinction for understanding how emotions have different influences on decision making).

[12] Peter H. Huang and Ho-Mou Wu, *Emotional Responses in Litigation*, 12 Intl Rev L & Econ 31 (1992) (studying how emotions influence decisions to sue, settle, or proceed to trial in game-theoretic models); Peter H. Huang and Ho-Mou Wu, *More Order Without More Law: A Theory of Social Norms and Organizational Cultures*, 10 J L, Econ, & Org 390 (1994) (showing formally how guilt may sustain the honoring of trust in principal-agent relationships); Peter H. Huang, *Dangers of Monetary Incommensurability: A Psychological Game Model of Contagion*, 146 U Pa L Rev 1701 (1998) (commenting on emotions that arise from commodification and monetary commensurability); Peter H. Huang, *Herd Behavior in Designer Genes*, 34 Wake Forest L Rev 639 (1999) (discussing emotions that may occur when utilizing markets to allocate reproductive technologies and genetic engineering); Peter H. Huang, *Reasons Within Passions: Emotions and Intentions in Property Rights Bargaining*, 79 Or L Rev 435 (2000) (analyzing the role of anger and shame in Coasian bargaining); Peter H. Huang, *International Environmental Law and Emotional Rational Choice*, 31 J Legal Stud S237 (2002) (proving mathematically that the fear of losing face can generate compliance

The rest of this Article is organized as follows. Section I defines moody investing and very briefly reviews empirical and experimental evidence of moody investing. Section II explains why and how moody investing affects whether information is material and whether investors are rational. The remaining sections critically analyze three recent, but well-developed aspects of materiality doctrine in securities law because they fail to into account moody investing. Section III assesses the so-called puffery defense because that defense ignores the mood-altering power of puffery. Section IV critiques the so-called "total mix" analysis of materiality and proposes the addition of a "total affect" analysis of information. Section V advocates refining the so-called "bespeaks caution" doctrine and statutory safe harbors codifying that doctrine to inquire whether "meaningful cautionary language" affects moods. A conclusion summarizes the Article and suggests directions for additional research.

II. MOODY INVESTING

Traditional finance assumed unbounded rationality of cognitive investing, while behavioral finance focuses on the bounded rationality of cognitive investing.[13] The phrase "moody investing" stands in contrast to cognitive or non-moody investing. There is experimental evidence of systematic differences between two psychological processes that people utilize to construct their preferences, namely valuation by calculation and valuation by feelings.[14] Recent research in psychology and the neurosciences reveals that humans comprehend and face risk utilizing two fundamental systems, one analytic and the other experiential.[15] Of course, in practice, "reason and emotion are intertwined as the threads in an oriental carpet."[16] But, moody in-

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with international environmental law); and Peter H. Huang, *Trust, Guilt and Securities Regulation*, 151 U Pa L Rev 1059 (2003) (demonstrating analytically that guilt can reduce opportunistic behavior by broker-dealers and other corporate actors).

[13] See, for example, Nicholas Barberis and Richard Thaler, *A Survey of Behavioral Finance*, in George Constantinides, Milt Harris, and Rene Stulz, eds, *Handbook of the Economics of Finance* 1053, 1054, 1065-75 (North-Holland, 2003) (reviewing the cognitive psychology of investing).

[14] Christopher K. Hsee and Yuval Rottenstreich, *Music, Pandas, and Muggers: On the Affective Psychology of Value*, 133 J Experimental Psychol: Gen 23, 24-28 (2004) (reporting on four experimental studies and their implications).

[15] Paul Slovic, et al, *Risk as Analysis and Risk as Feelings: Some Thoughts about Affect, Reason, Risk, and Rationality*, 24 Risk Analysis 1-11 (2004) (explaining the difference between these two ways of processing risk and their implications). See also Valerie F. Reyna, *How People Make Decisions that Involve Risk: A Dual-Process Approach*, 13 Current Directions Psychol Rsrch 60 (2004).

[16] Richard Restak, *The Secret Life of the Brain* 109 (Joseph Henry, 2001). See also Jeremy R. Gray, *Integration of Emotion and Cognitive Control*, 13 Current Directions Psychol Rsrch 46 (2004).

vesting refers to investing that is (at least, partially) non-cognitive.[17] The collapse of the dot.com stock bubble is only the latest example of moody investing.[18] In addition to anecdotal support, there is empirical data that moody investing not only occurs,[19] but also affects securities prices and market performance.[20] Experimental research finds that individuals evaluate stocks not in terms of the relationships between risk and return, but instead based upon their global attitudes towards those stocks.[21] Experimental research indicates that "factors other than technical fundamentals are often used by market participants to gauge the value of securities. This phenomenon may be quite prevalent in markets for IPOs, where securities lack a financial history. The imagery and affect associated with securities can be a powerful basis upon which to judge their worth."[22] Affect and images crucially shape people's attitudes towards securities and their judgments concerning securities.[23] On the positive affect side, in 2000 and 2001, a $3 million advertising campaign in European and Asian magazines and newspapers introduced a series of global mutual funds alongside fashion supermodels and contained the affective tagline: "the most beautiful investments in the world."[24] On the negative affect side, perceived dangers of genetically manipulated organisms can stigmatize biotechnological stocks.[25] Long-term financial images tend to be more positive than short-term financial

[17] See generally Richard Geist, *Investor Therapy: A Psychologist and Investing Guru Tells You How to Out-Psych Wall Street* (Crown Business, 2003); and Lawrence E. Lifson and Richard A. Geist, *The Psychology of Investing* (Wiley, 1999).

[18] See generally Eli Ofek and Matthew Richardson, *DotCom Mania: The Rise and Fall of Internet Stock Prices*, 58 J Fin 1113 (2003); Maggie Mahar, *Bull: A History of the Boom, 1982-1999: What Drove the Breakneck Market—and What Every Investor Needs to Know About Financial Cycles* (Harper Business, 2004); and Roger Lowenstein, *Origins of the Crash: The Great Bubble and its Undoing* (Penguin, 2004).

[19] Andrew W. Lo and Dmitry V. Repin, *The Psychophysiology of Real-Time Financial Risk Processing*, 14 J Cognitive Neurosci 323, 325-32 (2002).

[20] See, for example, Kevin Au, et al, *Mood in Foreign Exchange Trading: Cognitive Processes and Performance*, 91 Org Behav & Human Decision Processes 322 (2003) (providing empirical evidence of the impact moody investing).

[21] Yoav Ganzach, *Judging Risk and Return of Financial Assets*, 83 Org Behav & Human Decision Processes 353, 357-68 (2000) (presenting four supporting experimental studies).

[22] Donald G. MacGregor, et al, *Imagery, Affect, and Financial Judgment*, 1 J Psychol & Fin Markets 104 (2000).

[23] Melissa L. Finucane, *Mad Cows, Mad Corn, & Mad Money: Applying What We Know About the Perceived Risk of Technologies to the Perceived Risk of Securities*, 3 J Psychol & Fin Markets 15, 18 (2002).

[24] Suzanne Kapner, *Selling Mutual Funds with Beauty, not Numbers*, NY Times, Dec. 14, 2000, at C8.

[25] Baruch Fischoff et al, *Investing in Frankenfirms: Predicting Socially Unacceptable Risks*, 2 J Psychol & Fin Markets 100, 107-10 (2001).

images.[26] Finally, a recent event study documented that positive abnormal returns and increased trading volume followed a company's Super Bowl television commercials.[27]

Each of the following can affect moods on the part of investors and/or securities professionals and in so doing, lead to moody investing and influence securities prices: financial rumors;[28] fluctuations in the amount of daylight over the year;[29] seasonal variations in biorhythms or sleep disruptions caused by changing from and to daylight savings;[30] and weather conditions.[31] But, moods are not due to so-

[26] Donald G. MacGregor, *Imagery and Financial Judgment*, 3 J Psychol & Fin Markets 15, 18 (2002).

[27] Frank Fehle, et al, *Can Companies Influence Investor Behavior through Advertising? Super Bowl Commercials and Stock Returns* (unpublished manuscript, available at www.ssrn.com) (2003).

[28] See generally Jos Van Bommel, *Rumors*, 58 J Fin 1499 (2003); Robert Menschel, *Markets, Mobs & Mayhem: A Modern Look at the Madness of Crowds* (John Wiley & Sons, 2002); and Mark P. Schindler, *Rumors in Financial Markets: Survey on How They Evolve, Spread, and Are Traded On, Institute for Empirical Research in Economics*, University of Zurich Working Paper No. 459 (2003).

[29] Mark Jack Kamstra, et al, *Winter Blues: A SAD Stock Market Cycle*, 93 Am Econ Rev 324 (2003) (providing international evidence of a link between seasonal depression and seasonal variation in stock returns). But see Patrick J. Kelley and J. Felix Meschke, The Link Between Depression and Stock Returns: A Reexamination (unpublished manuscript, available at www.ssrn.com) (June 15, 2004).

[30] Mark Jack Kamstra, Lisa A. Kramer, and Maurice D. Levi, *Losing Sleep at the Market: The Daylight Savings Anomaly*, 90 Am Econ Rev 1005 (2000); Michael Dowling and Brian M. Lucey, *Weather, Biorhythms and Stock Returns: Some Preliminary Irish Evidence* (unpublished manuscript 2002).

[31] See, for example, Dowling and Lucey, *Weather, Biorhythms and Stock Returns* (cited in note 30) (finding that rain and clock changes around daylight savings have minor but significant influences on Irish stock prices); David A. Hirshleifer & Tyler G. Shumway, *Good Day Sunshine: Stock Returns and the Weather*, 58 J Fin 1009 (2003) (finding a strong positive correlation between morning sunshine at a country's leading stock exchange and the market index stock returns that day at twenty-six stock exchanges internationally from 1982-97); K. Lam & S.S. Lam, *The Phenomenon of El Nino: The Relationship Between Weather and Stock Prices*, Hong Kong Econ J (Apr. 22, 1998) (finding that stock prices in Hong Kong related to weather conditions, which in turn were related to investors' moods); Edward M. Saunders, Jr., *Losing Stock Prices and Wall Street Weather*, 83 Am Econ Rev 1337 (1993). See also W. Kramer & R. Runde, *Stocks and the Weather: An Exercise in Data Mining or yet Another Capital Market Anomaly*, 22 Empirical Econ 637 (1997) (replicating Saunder's study for Frankfurt, Germany); M.A. Trombley, *Stock Prices and Wall Street Weather: Additional Evidence*, 36 Q J Bus & Econ 11 (1997) (reexamining Saunder's study). But see William N. Goetzmann and Ning Zhu, Rain or Shine: Where is the Weather Effect?, National Bureau of Economic Research Working Paper No W9465 (Feb 2003) (finding virtually no difference in the propensities of individual investors five major U.S. cities over a six-year period to buy or sell stocks on cloudy days versus sunny days and interpreting this as evidence that attitudes, behavior, and moods of market-makers, rather than individual investors, may account for the relation between stock returns and weather); Tim Loughran and Paul Schultz, *Weather, Stock Returns, and the Impact of Localized Trading Behavior*, 39 J Fin

called "sunspots" that are beyond the control or prediction of securities issuers. In fact, mandatory securities disclosures and voluntary securities communications themselves affect moods and in so doing, lead to moody investing.[32] The legal and policy implications for securities litigation and enforcement of recent advances in our understanding of economics, marketing, and psychology are the subject of this Article.

Three recent economic models about how moods affect decision-making provide insights about moody investing. First, an economic model that extends expected utility theory by explicitly incorporating feelings demonstrates how investors experiencing anxiety affect asset prices.[33] This psychological expected utility model also has implications for the amount of information that a doctor should give a patient before an operation;[34] policy issues raised by the increasing availability of genetic testing; and raising the low personal savings rate in the United States.[35]

Second, the closed-form solution of a simple general economic equilibrium model demonstrates that small fluctuations in the moods of investors have potentially large impacts on stock prices.[36] This model assumes that these three hypotheses are true.[37] First, investors are unaware of their investment decisions being influenced by their

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& Quantitative Analysis 343, 345, 355-62 (2004) (finding little empirical evidence Nasdaq stock returns are related to cloudy weather in the city where a company is based).

[32] Peter H. Huang, *Regulating Irrational Exuberance and Anxiety in Securities Markets*, in Francesco Parisi and Vernon Smith, eds, *The Law and Economics of Irrational Behavior* (Stanford, forthcoming) (analyzing the implications of moods for the long-standing debate over whether mandatory or voluntary securities disclosures is a better system of providing information about securities risks to investors).

[33] Andrew Caplin and John Leahy, *Psychological Expected Utility Theory and Anticipatory Feelings*, 116 Q J Econ 55, 60-66, 66-69 (2001) (introducing an economic model of anxious decision-making and investigating the implications of anxiety in that model for asset pricing).

[34] Andrew Caplin and John Leahy, *The Supply of Information by a Concerned Expert*, 114 Econ J 487, 488-502 (2004) (applying the above model of anxious decision-making and psychological game theory to analyze whether a physician should reveal the truth to a naively optimistic terminally ill patient).

[35] Andrew Caplin and John Leahy, *Behavioral Policy*, in Isabelle Brocas and Juan D. Carillo, eds, *The Psychology of Economic Decisions: Rationality and Well-Being* 73-87 (Oxford, 2003) (applying the above model of anxious decision-making to behavioral medicine and savings decisions). See also Lauren G. Block and Patti Williams, *Undoing the Effects of Seizing and Freezing: Decreasing Defensive Processing of Personally Relevant Information*, 32 J Applied Soc Psychol 803 (2002) (offering practical advice to practitioners on designing more effective health-related advertisements).

[36] Rajnish Mehra and Raaj Sah, *Mood Fluctuations, Projection Bias, and Volatility of Equity Prices*, 26 J Econ Dynamics & Control 869, 873-83 (2002) (deriving such a model).

[37] Id at 870.

mood fluctuations. Second, investors' judgments of the appropriate discount factor or their degrees of relative risk aversion fluctuate in response to moods fluctuations. Third, investors uniformly and widely experience the impacts of such mood fluctuations on their subjective judgments or attitudes towards risk.

Third, a novel economic model analyzes people's behavior as the result of two interacting processes in the human brain, namely an affective system encompassing motivational drives and emotions and a deliberative system taking into account broader goals.[38] This model formally captures the familiar notion of being "of two minds." The model has novel testable predictions for intertemporal preferences, risk preferences, and social preferences. For example, the model predicts that when the affective system plays a stronger role than the deliberative system in decision making, the nonlinear probability weighting function should become more S-shaped. In particular, this means that when a person is under cognitive load or stress or when her willpower is depleted, she will exhibit a more S-shaped probability weighting function. The model also suggests that risk aversion is driven by the affective system.

Several strands of current psychological research explore the interplay of cognitive and emotional processes.[39] First, empirical research supports an affect or "how-do-I-feel-about-it" heuristic, by which people rely on their affective feelings in making decisions and judgments.[40] Second, the risk-as-feelings hypothesis postulates that people often perceive risks in visceral terms.[41] To be clear, the affect heuris-

[38] George F. Loewenstein and Ted O'Donoghue, Animal Spirits: Affective and Deliberative Processes in Economic Behavior (unpublished manuscript, available at www.ssrn.com) (May 4, 2004).

[39] See generally Eric Cich, *Cognition and Emotion* (Oxford, 2000). See also Louis C. Charland, *Is Mr. Spock Mentally Competent? Competence to Consent and Emotion*, 5 Phil, Psychiatry, & Psychol 67, 71-72 (1998) (describing recent neurophysiological, philosophical, and psychological research suggesting that emotions are fundamentally cognitive).

[40] Melissa L. Finucane, et al, *Judgment and Decision Making: The Dance of Affect and Reason*, in Sandra L. Schneider and James Shanteau, eds, *Emerging Perspectives on Decision Research* (Cambridge, 2003) (analyzing the affect heuristic); Paul Slovic, et al, *The Affect Heuristic*, in Thomas L. Gilovich, et al, eds, *Heuristics and Biases: The Psychology of Intuitive Judgment* 397, 400-20 (Cambridge, 2002) (defining the affect heuristic, providing empirical evidence, and discussing manipulation of affect); Paul Slovic, et al, *Rational Actors or Rational Fools: Implications of the Affect Heuristic for Behavioral Economics*, 31 J Soc-Econ 329 (2002); and Cass R. Sunstein, *Hazardous Heuristics*, 70 U Chi L Rev 751 (2003) (reviewing Gilovich, *Heuristics and Biases* (cited above in this note), and discussing legal implications of the affect heuristic).

[41] George F. Loewenstein, et al, *Risk-as-Feelings*, 127 Psychol Bull 267 (2001). An important aspect of such visceral perception of risk is probability insensitivity or neglect. See Yuval Ruttenstreich and Christopher K. Hsee, *Money, Kisses, and Electric Shocks: On the Affective Psychology of Risk*, 12 Psychol Sci 185 (1999) (providing experimental evidence of such probability insensitivity); and Cass R. Sunstein, *Proba-*

tic and the risk-as-feelings hypothesis are related and share a common perspective that people do not simply deal with risks analytically. Third, the Affect Infusion Model (AIM) specifies those conditions under which affective information becomes incorporated into people's cognition and constructive processing, selectively and influencing their associative processes, attention, learning, memory, and the outcome from their deliberations.[42] The Affect-As-Information model posits that people utilize their feelings at a given moment as information regarding their attitudes.[43] Fourth, affect and feelings have both strengths and weaknesses in judgment and decision-making.[44] Fifth, fairly subtle manipulations of affect, in particular inducing disgust and sadness, have dramatic effects on the endowment effect.[45] Finally, patients with lesions in specific components of a neural circuitry for emotional processing displayed less loss aversion and earned more money in simulated real-life investment decisions than individuals without brain lesions and patients with lesions in areas of the brain unrelated to emotional processing.[46]

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bility Neglect: Emotions, Worst Cases, and Law, 112 Yale L J 61, 70-82 (2002) (developing legal implications of probability neglect). See also Thomas E. Nygren, Alice M. Isen, Pamela J. Taylor, and Jessica Dulin, *The Influence of Positive Affect on the Decision Rule in Risk Situations: Focus on Outcome (and Especially Avoidance of Loss) Rather Than Probability,* 66 Org Behav & Human Decision Processes 59 (1996).

[42] Joseph P. Forgas, *Mood and Judgment: The Affect Infusion Model (AIM),* 117 Psyschol Bull 39 (1995) (arguing that the extent to which people rely on their feelings to make decisions depends on how abstract, risky, and uncertain those decisions are). See also Dolores Albarracin and G. Tarcan Kumkale, *Affect as Information in Persuasion: A Model of Affect Identification and Discounting,* 84 J Personality & Soc Psychol 453, 456-65 (2003) (presenting three experimental studies finding curvilinear influences of ability and motivation on affect).

[43] Norman Schwarz, *Feelings as Information: Moods Influence Judgments and Processing Strategies,* in Gilovich, *Heuristics and Biases* at 534, 536-547 (cited in note 40) (presenting and reviewing evidence that moods influence information processing); Norman Schwarz, *Situated Cognition and the Wisdom of Feelings: Cognitive Tuning* in L. Feldman Barrett and P. Salovey, eds, *The Wisdom of Feelings* (Guilford, 2002); Norman Schwarz and Gerald L. Clore, *Mood, Misattribution and Judgments on Well-Being: Informative and Directive Functions of Affective States,* 45 J Personality & Soc Psychol 513 (1983) (proposing the Affect-As-Information model); and Norman Schwarz and Gerald L. Clore, *How Do I Feel About It? The Informative Function of Affective States* in K. Fiedler and J.P. Forgas, eds, *Affect, Cognition, and Social Behavior* 44 (Hogrefe & Huber., 1991).

[44] Michel Pham, *The Logic of Feeling,* 14 J Consumer Psychol (forthcoming, 2004) (discussing the adaptive role of affect and feelings in judgment and decision making).

[45] Jennifer S. Lerner, et al, *Heart Strings and Purse Strings: Carry-over Effects of Emotions on Economic Transactions,* 15 Psychol Sci 337 (2004). See also Ellen Peters, et al, *The Role of Affect in the WTA/WTP Disparity,* 16 J Behav Dec Making 309, 311-26 (2003) (reporting on four experimental studies relating affect to the differences between willingness-to-pay and willingness-to-accept prices).

[46] Baba Shiv, et al, *Investment Behavior and the Negative Side of Emotion* (unpublished working paper, University of Iowa) (2003).

Consumer and marketing researchers have also made considerable progress in understanding the role of moods in persuasion.[47] In fact, the role of affect in the academic marketing literature is quite instructive as it progressed through the stages of complete, then relative neglect; recognition on an equal footing with cognition; general analysis; moving past a distinction between positive and negative to focus on discrete emotions; and reaching a consensus that affect and cognition are inseparable. Historically, the information processing model of consumers as logical decision-makers was ubiquitous, treating affect as occurring only after much cognition, which is pre-eminent and irrevocable.[48] But, a few social psychologists argued that affective reactions are primary, inescapable, and therefore as important as cognition.[49] Subsequent marketing researchers emphasized how moods impact the recall, evaluations and behaviors of consumers.[50] Other marketing researchers have focused on specific types of emotions that are common in commercials, such as warmth,[51] fear,[52] or desire.[53]

[47] This brief synopsis draws upon the discussions in a Wharton graduate marketing seminar on advanced topics in consumer behavior session about affect led by Patti Williams. Patti Williams, *The Role of Emotions in Persuasion*, Address at the Association for Consumer Research Doctoral Consortium (2003). See also Morris B. Holbrook, *What is Consumer Research*, 14 J Consumer Rsrch 128, 130 (1987) (contrasting marketing research with consumer research). See generally Wayne D. Hoyer and Deborah J. MacInnis, *Consumer Behavior* 236-37, 265-67 (Houghton Mifflin 3d ed, 2004); Michael R. Solomon, *Consumer Behavior: Buying, Having, and Being* 227-31 (Prentice Hall 6th ed, 2004).

[48] Morris B. Holbrook and Elizabeth C. Hirschman, *The Experiential Aspects of Consumption: Consumer Fantasies, Feelings, and Fun*, 9 J Consumer Rsrch 132, 132-34, 139 (1982) (arguing that many emotions and feelings matter to consumers).

[49] See generally Robert B. Zajonc, *Feeling and Thinking: Preferences Need no Inferences*, 35 Am Psychol 151 (1980) and Robert B. Zajonc & Hazel Markus, *Affective and Cognitive Factors in Preferences*, 9 J Consumer Rsrch 123 (1982).

[50] See, for example, Meryl Paula Gardner, *Mood States and Consumer Behavior*, 12 J Consumer Rsrch 281, 132-34, 139 (1985) (arguing that many emotions and feelings matter to consumers) and Rajeev Batra & Michael L. Ray, *Affective Responses Mediating Acceptance of Advertising*, 13 J Consumer Rsrch 234, 235-39 (1986) (arguing that affective responses to advertisements represent moods and feelings evoked by advertisements). See also Alexander Fedorikhin and Catherine A. Cole, *Mood Effects on Attitudes, Perceived Risk and Choice: Moderators and Mediators*, 14 J Consumer Psychol 2 (2004) (presenting experimental evidence investigating the moderating role of constructive processing in mood effects on risk perceptions of consumers).

[51] David A. Aaker, et al, *Warmth in Advertising: Measurement, Impact, and Sequence Effects*, 12 J Consumer Rsrch 365, 368-69 (1986) (introducing the "warmth monitor").

[52] Punam Anand Keller & Lauren Goldberg Block, *Increasing the Persuasiveness of Fear Appeals: The Effect of Arousal and Elaboration*, 22 J Consumer Rsrch 448, 450-56 (1996) (finding conditions under which anti-smoking messages that prompt low and high fear levels are likely to be effective).

[53] Russell W. Belk, et al, *The Fire of Desire: A Multisited Inquiry into Consumer Passion*, 30 J Consumer Rsrch 326 (2003) (developing a phenomenological account of

Still other marketing researchers found that feelings in response to commercials influence their cognitive processing.[54] Another marketing researcher investigated the conditions under which consumers are more likely to rely on the "how-do-I-feel-about-it" heuristic.[55]

III. MATERIAL INFORMATION AND REASONABLE INVESTORS

Moody investing means that the United States Supreme Court and lower courts should rethink their answers to what it means to be a reasonable investor and what it means for information to be material. The question of what is material information is related to the question of what is a reasonable investor because of statutory language and judicial interpretation.[56] Although United States federal securities regulation is mainly statutorily based, judicial decisions by the United States Supreme Court and lower courts play a large role in the statutory interpretation of the United States federal securities regulations. Although the literature about cognitive biases and heuristics also suggest non-moody arguments in favor of rethinking materiality and what is a reasonable investor;[57] this Article champions a complementary and more fundamental rethinking of the notions of a reasonable investor and materiality based upon moody reactions to financial risks and securities disclosures.

The question of whether a particular item of information is material is central to securities litigation and enforcement. Rule 408 of the Securities Act requires that registration statements contain, in addition to particular specifically required disclosures, "such further material information . . . as may be necessary to make the required statements, in the light of the circumstances under which they are made, not misleading."[58] Rule 12b-20 of the Securities Exchange Act imposes the same requirement in mandated periodic disclosures.[59] Questions of materiality arise in the anti-fraud civil liability provisions of sec-

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desire based on inquiries into daily discourses, interviews, journals, and projective data in the United States, Denmark, and Turkey).

[54] Julie A. Edell and Marain Chapman Burke, *The Power of Feelings in Understanding Advertising Effects*, 14 J Consumer Rsrch 421, 431 (1987) (finding that affective processing and cognitive processing of commercials are intertwined).

[55] Michel Tuan Pham, *Representativeness, Relevance, and the Use of Feelings in Decision Making*, 25 J Consumer Rsrch 144, 146-57 (1998) (reporting on three sets of experimental findings).

[56] See notes 62-63 and accompanying text.

[57] Donald C. Langevoort, *Taming the Animal Spirits of the Stock Markets: A Behavioral Approach to Securities Regulation*, 97 Nw U L Rev 135, 184-86 (2002) (advocating the rethinking of materiality in the context of open-market securities fraud).

[58] 17 CFR § 230.408 (2002).

[59] 17 CFR § 240.12b-20 (2002).

tions 11 and 12(a)(2) of the Securities Act and Rule 10b-5 of the Securities Exchange Act, in particular insider trading cases.[60] Regulation FD prohibits the selective disclosure of material, non-public information by issuers of securities.[61]

Rule 405 of the Securities Act defines "[t]he term 'material,' when used to qualify a requirement for the furnishing of information as to any subject, limits the information required to those matters to which there is a substantial likelihood that a reasonable investor would attach importance in determining whether to purchase the security registered."[62] The United States Supreme Court adopted this as the standard for materiality: "there must be a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available."[63]

Such a materiality standard raises the question of who is a reasonable investor? The definition of materiality for contingent or speculative information which the United States Supreme Court adopted sheds light on who the United States Supreme Court believes is a reasonable investor.[64] The United States Supreme Court adopted the Second Circuit's probability/magnitude approach, which states that materiality "will depend at any given time upon a balancing of both the indicated probability that the event will occur and the anticipated magnitude of the event in light of the totality of the company activity."[65] In other words, when it comes to information concerning securities investment risks, the United States Supreme Court adopted a materiality standard that focuses exclusively on the probability and magnitude of the risky outcome. Earlier in that opinion cited by the United States Supreme Court in *Basic Inc. v. Levinson*, 485 U.S. 224, 238 (1988), the Second Circuit states that:

> "[t]he speculators and chartists of Wall and Bay Streets are also 'reasonable' investors entitled to the same legal protection afforded conservative traders." Thus, material facts include not only information disclosing the earnings and distributions of a company but also those facts which affect the probable future of the company and those which may affect the desire of investors to buy, sell, or hold the company's securities."[66]

[60] 15 USC §§ 77k, 77l, 17 CFR § 240.10b-5 (2002).
[61] 17 CFR § 243.100-103 (2002).
[62] 17 CFR § 230.405 (2002).
[63] *TSC Industries, Inc v Northway, Inc*, 426 US 438, 449 (1976).
[64] *Basic Inc v Levinson*, 485 US 224, 239 (1988).
[65] *SEC v Texas Gulf Sulphur, Co*, 401 F2d 833, 849 (2d Cir 1968).
[66] Id at 849.

The court quoted a defendant's expert witness in a footnote to the above quoted passage:

> "[t]he intelligent speculator assumes that facts are available for a thorough analysis. The speculator then examines the facts to discover and evaluate the risks that are present. He then balances these risks against the apparent opportunities for capital gains and makes his decision accordingly. He is, to the best of his ability, taking calculated risks."

This description of how an intelligent speculator behaves remains that of a person who cognitively evaluates and calculates securities risks as opposed to reacts moodily and perhaps unconsciously to securities risks.

A response to rethinking the notions of materiality and reasonable investor behavior is that many courts appear to view the reasonable investor as referring to a normative idealized type of behavior, instead of a descriptive realistic depiction of actual behavior. But, if this is the case, one can question whether the practice of courts continuing to utilize such a definition of reasonable investor and the related standard of materiality is relevant or appropriate.[67] Courts have not eliminated and will not even necessarily reduce moody investing simply by holding that moody investing behavior is not reasonable, especially if moody investing is prevalent and unconscious.[68] It is also unclear whether moody investing behavior is unreasonable, both descriptively and normatively.

A different response to rethinking the financial model of reasonable investor behavior is that one should apply that model not literally, but instead figuratively. In other words, the reasonable investor model is a metaphor which provides a useful framework that enables us to understand securities markets better than without such a metaphor. Indeed, the same has been said of two well-known quantitative financial valuation models, namely the Capital Asset Pricing Model and the Black-Scholes Option Pricing Model.[69] While the reasonable investor model is certainly a useful metaphor, this Article

[67] Langevoort, *Taming the Animal* at 186 (cited in note 57) (arguing that the definition of materiality should be tied to commonplace as opposed to idealized investor behavior).

[68] See Timothy D. Wilson, *Strangers to Ourselves: Discovering the Adaptive Unconscious* 130 (Belknap, 2002) (discussing empirical and experimental evidence from social psychology that "people can possess one feeling while believing they have another"). See also Piotr Winkielman and Kent C. Berridge, *Unconscious Emotion*, 13 Current Directions Psychol Sci 120 (2004).

[69] Elton G. McGoun, *Finance Models as Metaphors*, 12 Intl Rev Fin Analysis 421, 422-26, 432 (2003).

will argue that the moody investing model provides a more accurate metaphor.

Moody investing suggests a new definition for the materiality of information which focuses on the magnitude of the risky outcomes and on the degree or vividness of mental imagery. Such a reformulation of materiality suggests that an emotionally rich presentation of information can be material while a less emotionally vivid presentation of the same cognitive information can be immaterial. In other words, determinations of materiality would and should depend not just on the cognitive form and content of information, but also upon the affective form or presentation and emotional content of that information.

Moody investing suggests a new definition for the reasonableness of investors which does not privilege cognition over affect, but instead acknowledges the reasonableness of some moods in certain situations. Such a reformulation of reasonableness implies that drawing a hard and fast line between cognition and emotion is artificial, if not impossible. In other words, determinations of reasonableness would and should depend not just on the cognitive nature and quality of information processing, but also upon the affective nature and quality of information processing.

IV. THE AFFECT OF PUFFERY

Under the United States federal securities laws, securities issuers have no duty to disclose any material nonpublic information they posses just because that information is material unless they have an independent duty to disclose that information.[70] But if and once an issuer of securities chooses to make voluntary disclosures, that issuer has a duty to speak completely.[71] In other words, there is a half-truth doctrine, under which statements that are literally true but omit some material fact, thereby making them misleading, are actionable under the federal securities laws.[72] In addition, some courts find that if a securities issuer chooses to make voluntary forward-looking disclosures, a securities issuer also has a duty to update those forward-looking statements to reflect any subsequent developments as long as the original disclosures remain alive in the securities marketplace.[73] But, Section 409 of the Sarbanes-Oxley Act added to the Se-

[70] *Basic Inc v Levinson*, 485 US 224, 239 n.17 (1988); *Glazer v Formica Corp*, 964 F2d 149, 157 (2d Cir 1992); and *Backman v Polaroid*, 910 F2d 10, 12 (1st Cir 1990) (en banc).

[71] *First Virginia Bankshares v Benson*, 559 F2d 1307, 1314 (5th Cir 1977), *cert. denied*, 435 US 952 (1978).

[72] See generally Donald C. Langevoort, *Half-Truths: Protecting Mistaken Inferences by Investors and Others*, 52 Stan L Rev 87 (1999) (discussing the half-truth doctrine).

[73] *Greenfield v Heublein, Inc*, 742 F2d 751, 758 (3rd Cir 1984); *In re Time-Warner Securities Litigation*, 9 F3d 259, 268 (2d Cir 1993); *In re Burlington Coat Factory Se-*

curities Exchange Act a new Section 13(l) that mandates real time disclosures of "additional information concerning material changes in the financial condition or operations of" securities issuers.[74]

Rule 10b-5 prohibits material misrepresentations and omissions.[75] A crucial issue for a successful Rule 10b-5 claim is whether the statements made were material. But, materiality is a complex notion. In particular, "projections and statements of optimism may trigger liability under federal securities laws."[76] But such statements may also fall under the protection of the so-called puffery defense or puffery doctrine. Under the puffery defense, statements that are too vague, promotional, or hyperbolic, constitute mere puffery and are therefore immaterial as a matter of law.[77] The puffery doctrine is closely related to the half-truth doctrine, under which there is a duty to speak completely if one chooses to speak.[78] The puffery doctrine is also closely related to so-called puffery claims arising in Federal Trade Commission (FTC) regulation of consumer product advertising;[79] cases of FTC enforcement prosecutions against deceptive advertising;[80] and the FTC's Policy Statement on Deception.[81]

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curities Litigation, 114 F3d 1410, 1432 (3d Cir 1997); and *Weiner v Quaker Oats Co*, 129 F3d 310, 318 (3d Cir 1977).

[74] 15 USCA § 78.13(l) (2003).

[75] 17 CFR § 240.10b-5 (2002).

[76] *In re Syntex Cor. Securities Litigation*, 855 F Supp 1086, 1096 (ND Cal 1994). See also *In re Apple Computer Securities Litigation*, 886 F2d 1109, 1113 (9th Cir 1989); *Marx v Computer Sciences Corp*, 507 F2d 485, 492 (9th Cir 1974); and *G & M, Inc v Newbern*, 488 F2d 742, 746 (9th Cir 1973).

[77] Note, *Securities Fraud or Mere Puffery: Refinement of the Corporate Puffery Defense*, 51 Vand L Rev 1049, 1055-92 (1998) (discussing the puffery defense).

[78] Langevoort, *Half Truths* at 121-24 (cited in note 72) (discussing the close relationship between the puffery or general optimism doctrine and the half-truth doctrine).

[79] See generally Ivan L. Preston, *The Great American Blow-Up: Puffery in Advertising and Selling* (Wisconsin 2d ed, 1996); Ivan L. Preston, *The Tangled Web They Weave: Truth, Falsity and Advertisers* (Wisconsin, 1996); Terence A. Shrimp, *Advertising, Promotion, and Supplemental Aspects of Integrated Marketing Communication* (SW College 6th ed, 2003).

[80] See, for example, *Florence Mfg Co v J.C. Dowd & Co*, 178 F 73, 75 (2nd Cir 1910) (stating that "[t]he law is not made for experts but to protect the public,—that vast multitude which includes the ignorant, the unthinking and the credulous, who, in making purchases, do not stop to analyze but too often are governed by appearances and general impressions"); *Aronberg v FTC*, 132 F2d 165, 167 (7th Cir 1942) (stating "the buying public does not ordinarily carefully study or weigh each word in an advertisement" and that "[a]dvertisements are intended not 'to be carefully dissected with a dictionary at hand, but rather to produce an impression upon' prospective purchasers" (quoting *Newton Tea & Spice Co v United States*, 288 F 475, 479 (6th Cir 1923))); *Standard Oil Co of California v FTC*, 577 F2d 653, 659 (9th Cir 1978) (stating "that commercial messages might lead the average viewer, in his anxiety . . . to overreact even though upon careful reflection he might see for himself the limitations inherent in the advertiser's claim").

[81] An advertisement is deceptive when there is "a misrepresentation, omission or other practice, that misleads the consumer acting reasonably in the circumstances, to

The FTC's Policy Statement on Deception states that an advertisement is deceptive when there is "a misrepresentation, omission or other practice, that misleads the consumer acting reasonably in the circumstances, to the consumer's detriment."[82] The FTC also regulates what advertisements do not say, that is, when they omit material information that affects a consumer's decision to purchase the advertised goods or services. In deceptive advertising claims by competitors,[83] and trademark infringement claims under the Lanham Act;[84] courts already adopt empirical survey evidence and expert witness testimony in determining consumers' perceptions.[85] Two legal scholars proposed that courts utilize measurable survey evidence to determine the actual perceptions of symbolic government action endorsing religion and in so doing test for violations of the Establishment Clause of the First Amendment.[86] Similarly, this Article suggests that moody investing also argues for courts adopting survey evidence to determine if puffery affects moods and in so doing, securities investing. Of course, there must be established protocols and procedures for conducting surveys. Some legal scholars and economists have questioned the nature and reliability of survey data from contingent valuation methodology.[87] Also, economists historically are suspicious of the meaning and veracity of survey data (preferring to make statistical inferences from observable quantitative market data by econometric methods).[88]

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the consumer's detriment." Policy Statement on Deception, 4 Trade Reg Rep (CCH) ¶13, 205 at 20, 917 (FTC Oct. 14, 1983). In determining if an advertisement deceives consumers, the FTC asks what does the advertisement say or imply, and does the advertisement have a reasonable basis for its claims?

[82] Policy Statement on Deception, 4 Trade Reg Rep (CCH) ¶13, 205 at 20, 917 (FTC Oct. 14, 1983). To determine if an advertiser has deceived consumers, the FTC conducts a two-part analysis: (1) What does the advertisement say or imply? and (2) Does the advertiser have a reasonable basis for its claims?

[83] 15 USC §1125(a)(1)(B).

[84] 15 USC §1051 et seq (1994).

[85] See, for example, *Southland Sod Farms v Stover Seed Co*, 108 F3d 1134, 1140 (9th Cir 1997) ("Reactions of the public are typically tested through the use of consumer surveys."); and *Qualitex Co v Jacobson Prods. Co*, No CV-90-1183HLH, 1991 Dist. LEXIS 21172, at *14-15 (CD Cal 1991), aff'd in part & rev'd on other grounds, 13 F3d 1297, rev'd, 514 US 159 (1995) (finding that surveys are relevant on the issue of likelihood of confusion).

[86] Shari Seidman Diamond and Andrew Koppelman, *Measured Endorsement*, 60 Md L Rev 712, 716 (2001).

[87] See generally Jerry A. Hausman, ed, *Contingent Valuation: A Critical Assessment* (North-Holland, 1993).

[88] See, for example, Fritz Machlup, *Marginal Analysis and Empirical Research*, 36 Am Econ Rev 519 (1946) (arguing that people do not know their own motivations, so what people say about themselves should not be taken seriously). But see Truman Bewley, *Interviews as a Valid Empirical Tool in Economics*, 31 J Socio-Econ 343, 344-52 (2002) (describing sampling, interviewing, and data analysis methods for surveys).

To be clear, this Article is not advocating that all puffery should be legally actionable. For example, if a company prints the phrase, "we are bullish on this company's future prospects", in the company's annual report distributed to existing and potential shareholders, that statement ought not be actionable due to it being a completely vague assertion concerning the future that is unlikely to induce any false implied meanings that directly affect investors' beliefs concerning that company's securities. To be legally actionable, puffery must induce false implied meanings that are thus deceptive, misleading, and can be disproved. A central point of this Article is that social psychological and marketing research demonstrates that puffery may engender or generate implied meanings not only cognitively, but also emotionally.[89]

Moody investing means that the puffery defense is flawed because vague, promotional, or hyperbolic statements can have real impacts on moods and therefore should not be deemed immaterial as a matter of law. A response to such mood impacts is that over time, people may learn to ignore or discount puffery. But, such a response ignores the fact that investors are not a fixed group, but instead consist of an ever-changing pool of investors, who as they become older and if wiser are replaced by a new cohort still wet behind the ears and ready to be misled emotionally.[90] Also problematic for such a response is the vast empirical and experimental research finding that people are systematically wrong in their forecasts of how they will feel.[91] In fact,

[89] Shari Seidman Diamond and Linda Dimitropoulos, *Deception and Puffery in Advertising: Behavioral Science Implications for Regulation*, 23-24 Am B Found Working Paper # 9105 (1994) (discussing early empirical evidence that puffery can be persuasive as a peripheral cue in addition to cognitive information). See also Raymond R. Burke, et al, *Deception by Implication: An Experimental Investigation*, 14 J Consumer Rsrch 483, 486-91 (1998) (presenting laboratory evidence that expansions of literally true claims in advertisements increased false brand attributes, affect, and purchase intentions compared to control conditions).

[90] Lynn Stout, *Are Stock Markets Costly Casinos*, 81 Va L Rev 611, 637-40 (1995) (making a similar argument about what happens when "Darwin Meets Barnum").

[91] Jeremy A. Blumenthal, *Law and the Emotions: The Problems of Affective Forecasting* 80 Indiana L J (forthcoming 2004) (reviewing this literature and exploring its legal policy implications); Christopher K. Hsee and Jiao Zhang, *Distinction Bias: Misprediction and Mischoice Due to Joint Evaluation*, 86 J Personality & Soc Psychol 680, 683-90 (2004) (demonstrating experimentally that people often make predictions and choices in the joint evaluation mode, but actually undergo experiences in the separate or single evaluation mode); Christopher K. Hsee, et al, *Lay Rationalism and Inconsistency between Predicted Experience and Decision*, 16 J Behav Dec Making 257, 259-67 (2003) (presenting evidence that decision-makers systematically overweight cold rationalistic factors and underweight hot affective factors); Christopher K. Hsee, et al, *Medium Maximization*, 30 J Consumer Rsrch 1, 4-11 (reporting on experimental studies finding that people have a tendency to base their decisions on specious immediate payoffs instead of the ultimate consequences of their actions); George Loewenstein and Daniel Adler, *Projection Bias in Predicting Future Utility*, 105 Econ J 929 (1995)

people are often unconscious of how they feel.[92] Cognitive biases and heuristics provide a different set of non-moody reasons for questioning the puffery defense.[93]

Recently, appellate courts in virtually every federal circuit court have utilized the puffery defense to dismiss private securities fraud actions based upon vague statements of corporate optimism.[94] Courts have also utilized the puffery defense to dismiss private securities fraud actions against brokers.[95] But, securities customers may be more trusting of and so more subject to securities brokers engaging in puffery to induce moody investing than securities customers are in danger of securities issuers engaging in puffery to induce moody investing. Securities customers may feel they are closer to and have more of a personal relationship with their securities brokers than with the issuers of securities. On the other hand, that perceived closeness and personal relationship could also mean that securities customers will come to appreciate the degree to which their securities

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(presenting evidence that people fail to predict their future utility); George Loewenstein, et al, *The Effect of Sexual Arousal on Expectations of Sexual Forcefulness*, 34 J Rsrch Crime & Delinq 443, 445-47 (1997) (examining how young males in various states of sexual arousal predict incorrectly how coercive they will be in sexual settings); George Loewenstein and David Schkade, *Wouldn't It Be Nice? Predicting Future Feelings* in Daniel Kahneman, et al, eds, *Well-Being: The Foundations of Hedonic Psychology* 85, 88-100 (Russell Sage, 1999) (reviewing empirical evidence that people make errors in predicting their feelings, discussing the sources of such errors, and considering policy implications); Leaf Van Boven and George Loewenstein, *Social Projection of Transient Visceral Feelings*, 29 Personality & Soc Psychol Bull 1159 (2003) (documenting that people have difficulty while in a hot state imagining themselves to be in a cold state); and George Loewenstein, et al, *Projection Bias in Predicting Future Utility*, 118 Q J Econ 1209, 1212-16 (2003) (presenting and reviewing evidence from a variety of domains that people systematically underestimate the magnitude of changes in their future tastes). See also Daniel T. Gilbert, et al, *Immune Neglect: A Source of Durability Bias in Affective Forecasting*, 75 J Personality & Soc Psychol 617, 620-36 (1998) (discussing experimental evidence that people misestimate the duration of their future feelings); Daniel T. Gilbert, et al, *Durability Bias in Affective Forecasting*, in Gilovic, *Heuristics and Biases* at 292, 297-312 (cited in note 40) (same); and Daniel T. Gilbert & Timothy D. Wilson, *Miswanting: Some Problems in the Forecasting of Future Affective States* in Joseph P. Forgas, ed, *Feeling and Thinking: The Role of Affect in Social Cognition* 178, 185-94 (Cambridge, 2000) (discussing research findings).

[92] Wilson, *Strangers to Ourselves* at 117-35 (cited in note 68) (discussing research findings that people do not know how they feel).

[93] Langevoort, *Taming the Animal Spirits* at 184-86 (cited in note 57) (questioning the cognitive applicability of the puffery defense in the context of open-market securities fraud).

[94] Jennifer O'Hare, *The Resurrection of the Dodo: The Unfortunate Re-emergence of the Puffery Defense in Private Securities Fraud Actions*, 59 Ohio St L J 1697, 1708-15 (1998) (documenting the prevalence of appellate courts accepting the puffery doctrine to dismiss private securities fraud cases).

[95] Id at 1708 fns 47-51 (citing and discussing such cases).

brokers engage in puffery. Furthermore, there is a standard refrain that if there are long-term relationships between securities brokers and securities customers, securities brokers who are not myopic are unlikely to engage in harmful puffery because of the value of repeated interaction and their market reputations. In fact, the SEC has been unwilling to dismiss enforcement actions against brokers based upon the puffery defense, holding that the puffery defense does not apply to such securities contexts.[96]

The problem with judicial early dismissal of a securities puffery case as a matter of law under Federal Rule of Civil Procedure 12(b)(6) or at summary judgment is that a reasonable jury might have decided differently had that jury been given the opportunity to do so. In other words, moody investing suggests that in terms of institutional competence, juries may possess a comparative advantage over judges in being able to determine if puffery affects moods and in so doing, securities investing. Several circuits hold that puffery is not sufficiently definitive to give rise to any §10(b) liability.[97] Similarly, several courts have held that forward-looking statements are immaterial and therefore harmless unless they rise to the level of a guaran-

[96] *In the Matter of George J. Kolar*, No 3-9570, 1999 SEC LEXIS 2300, *79 n.31 (Oct. 28, 1999) (stating the "Commission has not generally been hospitable to claims that statements made by a registered representative in the course of customer solicitation are 'mere puffery'."); and Id at 1708 fn 56 (citing and discussing other such enforcement actions).

[97] The Second Circuit held that "soft" statements of general optimism or "puffery cannot have misled a reasonable investor . . . and cannot constitute actionable statements under the securities laws." *San Leandro Emergency Medical Group Profit Sharing Plan v Philip Morris Co, Inc*, 75 F3d 801, 811 (2d Cir 1996). The Second Circuit also held that a statement that diversification will result in continued prosperity, when that statement is made with the knowledge that such a plan will actually reduce profits is "precisely the type of 'puffery' that this and other circuits have consistently held to be inactionable." *Lasker v New York State Electric & Gas Corp*, 85 F3d 55, 59 (2d Cir 1996). The Third Circuit held that "'[s]oft,' 'puffing' statements . . . generally lack materiality." *In re Burlington Coat Factory Securities Litigation*, 114 F3d 1410, 1427-28 (3d Cir 1997). The Fourth Circuit held that a company's predictions in its annual report that management believed that it could continue to grow net earnings at faster rate than sales were too vague to be material. *Raab v General Physics Corp*, 4 F3d 286, 289-90 (4th Cir 1993). The Fifth Circuit stated that, "[p]rojections of future performance not worded as guarantees are generally not actionable under the federal securities laws." *Krim v BancTexas Group, Inc*, 989 F2d 1435, 1446 (5th Cir 1993) (citing *Friedman v Mohasco Corp*, 929 F2d 77 (2d Cir 1991) and *Hershfang v Citicorp*, 767 F Supp 1251 (SD NY 1991)). The Seventh Circuit held that such promotional statements as "describing a company as 'recession-resistant' lacks the requisite specificity to be considered anything but optimistic rhetoric." *Searls v Glasser*, 64 F3d 1061, 1066 (7th Cir 1995). The Seventh Circuit also held that "[w]here puffing is the order of the day, literal truth can be profoundly misleading, as senders and recipients of letters of recommendation well know. Mere sales puffery is not actionable under Rule 10b-5." *Eisenstadt v Centel Corp*, 113 F3d 738, 746 (7th Cir 1997).

tee.[98] Both notions of a virtual guarantee being a prerequisite to materiality are problematic in light of empirical and experimental evidence that moody reactions to risk are insensitive to probability variations.

In summary, moody investing means that the puffery defense and the virtual guarantor test for the materiality of forward-looking statements are flawed because they are based upon only cognitive reactions to financial risks and information. So-called mere puffery may nonetheless be material because of the positive, strong moods that it evokes. Forward-looking statements that do not rise to the level of a virtual guarantee may nonetheless instill and infuse their listeners with euphoric moods that are not sensitive to probability variations. The legal and policy implication of the literature about decision-making and moods is that unquestioning judicial acceptance of the so-called puffery defense is unwarranted.

V. "TOTAL MIX" VERSUS "TOTAL AFFECT" OF INFORMATION

In articulating the standard for materiality, the United States Supreme Court stated that "there must be a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available."[99] The phrase "total mix" of information raises the questions of just what is the mix of information that is available and whether that mix should or does include information that is already out there in the marketplace.

In particular, the truth-on-the-market defense argues that an issuer's statements or omissions cannot be misleading if there already is countervailing information, such as analysts' reports, in the public domain that is therefore part of the "total mix" of information that is available.[100] The metaphor of the "total mix" of information suggests many individual cognitive evaluations of pieces of information

[98] *Hillson Partners Ltd Partnership v Adage, Inc*, 42 F3d 204, 216 (4th Cir 1994) (holding statements that "[t]he executive is looking for 1992 sales of about $100 million and 1993 sales of about $110 million" are immaterial because these "statements are obviously not guarantees"); *Glasser*, 64 F3d at 1067 (holding that "predictions of 'high' disposition gains cannot be held sufficiently definite so as to constitute material misstatements of fact"); *In re Browning-Ferris Indus. Inc. Sec. Litigation*, 876 F Supp 870, 897 (SD Tex 1995) (finding statements that predict growth but "not worded as guarantees, are not actionable under the federal securities laws"); *Raab*, 4 F3d at 289-90 (same); *Lasker*, F3d at 59 (same); and *Krim v BancTexas Group, Inc*, 989 F2d 1446 (5th Cir 1993) (same).

[99] *TSC Industries, Inc v Northway, Inc*, 426 US 438, 449 (1976).

[100] *Wieglos v Commonwealth Edison Co*, 892 F2d 509, 516 (7th Cir 1989).

being added up into an overall cognitive evaluation of the "total mix" of information. This cognitive aggregation can be performed by securities market prices and/or by individuals.

Thus, a truth-on-the-market defense might be premised on the hypothesis that securities markets are informationally efficient in the semi-strong sense, meaning that competitive market equilibrium securities prices encapsulate the entire "total mix" of information that is publicly available in the sense of being sufficient statistics for that aggregate information.[101] Theoretical financial economic models demonstrate conditions under which securities market equilibrium prices can aggregate initially dispersed information.[102] But, there are no corresponding results about securities market prices aggregating cognitive evaluations of risk and emotional reactions to risk or even just aggregating different categories and valences of emotional reactions to risk.

On the other hand, a truth-on-the-market doctrine might be premised upon individuals cognitively aggregating different sources of information.[103] But, the United States Supreme Court has held that "not every mixture with the true will neutralize the deceptive. If it would take a financial analyst to spot the tension between the one and the other, whatever is misleading will remain materially so, and liability should follow."[104] In another case, a court found unconvincing in certain contexts the above scenario of individuals locating, reading, processing, and cognitively evaluating other information besides an issuer's disclosures.[105]

[101] Id at 516. See also *In re Apple Computer Securities Litigation*, 886 F2d 1109, 1114 (9th Cir 1989) (stating that "it is a basic assumption of the securities laws that the partially-informed investors will cancel each other out, and that Apple's stock price will accurately reflect all relevant information"); *In re Convergent Technologies Securities* Litigation, 948 F2d 507, 513 (9th Cir 1991) (same); *Phillips v LCI Intern., Inc*, 190 F3d 609, 617 (4th Cir 1999) (same); and *Longman v Food Lion, Inc*, 197 F3d 675, 685 (4th Cir 1999) (same).

[102] See, for example, Sanford J. Grossman and Joseph E Stiglitz, *Information and Competitive Price Systems*, 66 Am Econ Rev 246 (1976) (providing such results); Sanford J. Grossman, *On the Efficiency of Competitive Stock Markets When Investors Have Diverse Information*, 31 J Fin 573 (1976) (same); Sanford J. Grossman, *Further Results on the Informational Efficiency of Competitive Stock Markets When Investors Have Diverse Information*, 18 J Econ. Theory 81 (1978) (same); Sanford J. Grossman, *An Introduction to the Theory of Rational Expectations Under Asymmetric Information*, 48 Rev Econ Stud 541 (1981) (same); and Roy Radner, *Rational Expectations Equilibrium: Generic Existence and the Information Revealed by Prices*, 47 Econometrica 655 (1979) (same).

[103] See, for example, *Rodman v Grant Foundation*, 608 F2d 64, 70 (CA NY 1979); *Seibert v Sperry Rand Corp*, 586 F2d 949, 952 (2d Cir 1978).

[104] *Virginia Bankshares, Inc v Sandberg*, 501 US 1083, 1097 (1991).

[105] *United Paperworkers International Union v International Paper Co*, 985 F2d 1190 (2d Cir 1993).

But, even reasonable investors will neither cognitively evaluate, nor emotionally react to items that are not part of the "total mix" of information. But, even for items that are in the "total mix" of information, the "total affect" of information differs from the "total mix" of that information in the cognitive sense. Moody investing means that emotionally neutral items in the "total mix" of information may not have much impact. For example, investors are likely to ignore boilerplate that is presented in an emotionally neutral fashion. Psychological experiments about how people form global retrospective evaluations of affective experiences felt over time find that people do not simply add up their moment-by-moment affective experiences.[106] Instead, people utilize a peak-and-end rule, whereby they focus on the peak and end affective levels. An open empirical question is whether the same is true of mood responses to information.

Another open empirical question is whether or to what extent even emotionally negative information sufficiently offsets the impact of emotionally positive information or other optimistic information. There is cognitive psychological evidence that our minds absorb information first from images, second from sounds, and third from texts.[107] This evidence suggests that emotionally negative images or pictures (such as televised press conferences) are likely to have the most impact, followed by emotionally negative audio recordings (such as radio broadcasts or internet webcasts), with emotionally negative documents or written information (such as press releases or newspaper articles) least likely to offset emotionally positive statements.

Recent marketing research finds television commercials involving conflicting emotions result in less favorable attitudes by viewers with a lower propensity to accept duality, such as Anglo Americans or younger adults than viewers with a higher propensity to accept duality, such as Asian Americans and older adults.[108] Can and should securi-

[106] See, for example, Barbara L. Frederickson, *Extracting Meaning from Past Affective Experiences: The Importance of Peaks, Ends and Specific Emotions*, 14 Cognition & Emotion 577 (2000); Barbara L. Frederickson and Daniel Kahneman, *Duration Neglect in Retrospective Evaluations of Affective Episodes*, 65 J Personality & Soc Psychol 45 (1993); Daniel Kahneman, et al, *When More Pain is Preferred to Less: Adding a Better End*, 4 Psychol Sci 401 (1993); Donald A. Redelmeier & Daniel Kahneman, *Patients' Memories of Painful Medical Treatments: Real-time and Retrospective Evaluations of Two Minimally Invasive Procedures*, 66 Pain 3 (1996); Carol Varey and Daniel Kahneman, *Experiences Extended Across Time: Evaluation of Moments and Episodes*, 5 J Behav Decision Making 169 (1992).

[107] Paul Tulenko, *Traditional Ways to Advertise Work Well with Updated Ideas*, Milwaukee J & Sentinel at 2D (Oct. 23, 2000).

[108] Patti A. Williams and Jennifer L. Aaker, *Can Mixed Emotions Peacefully Co-Exist?*, 28 J Consumer Rsrch 636, 639-48 (2002) (reporting on experiments concerning the psychological impact of mixed emotions on attitudes). See also G. Douglas Olsen and John W. Pracejus, *Integration of Positive and Negative Affective Stimuli*, 14 J Con-

ties regulations differentiate among emotional appeals made to demographic subgroups of society by age, culture, ethnicity, or sex in light of Constitutional equal protection issues raised by these research findings that consumer processing of mixed emotional appeals varies by age, culture, and situations?[109] What are the legal implications of the finding that emotional responses can interact with one another?[110]

It is unclear from cognitive psychology whether the SEC should mandate the order of presenting positive information and negative information. On the one hand, the contrast effect finds that "information that is presented against a contrasting background is often perceived disproportionately."[111] This suggests requiring positive information precede negative information so that the latter can stand out in contrast to the former. In addition, the "recentness effect" suggests that the last piece of information that a person hears is the most accessible piece of information for that person. On the other hand, the primacy effect suggests requiring negative information precede positive information because information presented first tends to have more influence on forming an overall impression than information presented later.[112] In addition, the priming effect suggests that initial information affects and conditions the interpretation of subsequent information.[113] Overall, the availability heuristic suggests that whatever piece of information becomes uppermost in the minds of an audience, whether due to primacy, recentness, typicality, or some other such effect, is perceived disproportionately and comes to carry more weight than less activated pieces of information.[114]

In summary, moody investing means that the "total affect" of information can and will differ from the "total mix" of that information in the cognitive sense. Although a cognitive evaluation for the "total mix" of information may integrate various cognitive evaluations of distinct items of information, it is an open empirical question if, how, or to what extent individuals or securities market prices

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sumer Psychol (forthcoming, 2004) (reporting on two experiments investigating how positive and negative affective stimuli combine to influence overall affective responses to an advertisement, content-specific beliefs, and overall evaluations).

[109] Id.

[110] Jennifer Edson Escalas and Barbara B. Stern, *Sympathy and Empathy: Emotional Responses to Advertising Dramas*, 29 J Consumer Rsrch 566, 570-76 (2003) (reporting on two experiments).

[111] Joachim Goldberg and Rudiger von Nitzsch, *Behavioral Finance* 41 (John Wiley & Sons, 2001).

[112] Elliot Aronson, *The Social Animal* 129-31 (WH Freeman 6th ed, 1992) (describing and explaining the primacy effect in impression formation).

[113] Id at 124-26 (describing and explaining the priming effect in impression formation); Goldberg and Von Nitzsch, *Behavioral Finance* at 43-44 (cited in note 111).

[114] Goldberg and Von Nitzsch, *Behavioral Finance* at 37-39 (cited in note 111) (discussing the availability heuristic).

amalgamate cognitive evaluations of and emotional reactions to information. It is also unclear how various emotional reactions to distinct items of information come together to form an overall emotional reaction for the "total mix" of information. Despite these uncertainties, which suggest further specific areas for additional empirical and theoretical research; the legal and policy implication of current empirical and theoretical knowledge about moody decision-making is to modify the "total mix" analysis of materiality to include investigation of the "total affect" of information. Such an inquiry may sound murky, but given that the "total mix" analysis is already murky, the incremental murkiness from investigating "total affect" should be manageable. In addition, this inquiry does not have to rely solely on the introspection of judges or juries, but can and should benefit from empirical surveys of investors and expert witness testimony by economists, social psychologists, and marketing professors. In particular, potential defendants can and should achieve some degree of protection from legal liability by having social psychologists and marketing firms conduct empirical survey research concerning the likely "total affect" of information regarding an issuer's securities.

VI. HOW AFFECTIVE AND EFFECTIVE IS MEANINGFUL CAUTIONARY LANGUAGE?

The judicially created "bespeaks caution" doctrine protects optimistic forward-looking statements including forecasts, projections, and opinions from allegations of misrepresentation and omission when those statements are accompanied by meaningful cautionary language.[115] Under the "bespeaks caution" doctrine, forward-looking statements accompanied by meaningful cautionary language are deemed to be immaterial. Courts have utilized the "bespeaks caution" doctrine to rule on the pleadings as a matter of law, usually by granting a motion to dismiss for failure to state a claim or a motion for summary judgment.

By offering protection from liability, the "bespeaks caution" doctrine provides another incentive for issuers and others to make soft information available to investors.[116] The same incentive effect ap-

[115] See generally Donald C. Langevoort, *Disclosures That "Bespeak Caution,"* 49 Bus Law 481 (1994) (analyzing three variations of the "bespeaks caution" doctrine, identifying two distinct, but related rationales for the doctrine and proposing refinement of the doctrine); and Jennifer O'Hare, *Good Faith and the Bespeaks Caution Doctrine: It's Not Just A State of Mind,* 58 U Pitt L Rev 619 (1997) (discussing alternative legal rationales courts have utilized in developing the "bespeaks caution" doctrine).

[116] Langevoort, *Disclosures* at 499 (cited in note 115) (noting that a virtue of the "bespeaks caution" doctrine is that it encourages companies and promoters to disclose more information to investors).

plies to statutory safe harbors that codify the "bespeaks caution" doctrine.[117] Historically, both the courts and the SEC consistently prohibited or at least discouraged issuers of securities from providing soft information.[118] One rationale for this hostility to soft information was the SEC's inability to review the accuracy of such hard-to-verify information and fears that (especially unsophisticated) investors would place undue reliance on soft information.[119] But, in 1978, the SEC adopted Securities Act Rule 175 and Securities Exchange Act Rule 3b-6,[120] which provide safe harbors for certain forward-looking statements in SEC filings by issuers of securities. In addition, the SEC mandates the disclosure of "known trends or uncertainties" reasonably expected to have material impact on the financial condition of a company in the management discussion and analysis (MD&A) section of such required SEC filings as prospectuses and annual reports.[121]

The phrase "bespeaks caution" is from a case in which a court held that certain statements "bespeak caution in outlook and fall far short of the assurances required for a finding of falsity and fraud."[122] In that securities fraud case alleging intentional misrepresentations in an offering memorandum, the court held that such allegations did not survive a motion to dismiss because the memorandum also contained accompanying cautionary language.[123] The court stated that: "We are not inclined to impose liability on the basis of statements that clearly 'bespeak caution.'"[124]

A leading case of the "bespeaks caution" doctrine involved an offering of $675 million in bonds by Donald Trump and a partnership to finance the completion of the Taj Mahal casino/hotel in Atlantic City.[125]

[117] Marilyn F. Johnson, et al, *The Impact of Securities Litigation Reform on the Disclosure of Forward-Looking Information by High-Technology Firms*, 39 J Acct Rsrch 297 (2001) (finding, in a sample of 523 computer hardware, computer software, and pharmaceutical companies, significant increases in both the frequency of companies that made general qualitative financial forecasts and the mean number of forecasts a year after the passage of the statutory safe harbors codifying the "bespeaks caution" doctrine, with a significant number of first-time forecasters and the greatest increases among companies at greatest risk of a lawsuit).

[118] See, for example, Securities Act Release No 5180 (Oct. 16, 1971); and *Gerstle v Gamble-Skogmo, Inc*, 478 F2d 1281, 1294 (2d Cir 1973).

[119] See, for example, *South Coast Services Corp v Santa Ana Valley Irrigation Co*, 669 F2d 1265, 1270 (9th Cir 1982).

[120] 17 CFR § 230.175; 17 CFR § 240.13b-6; *see also* Securities Act Release No. 6084 (June 25, 1979).

[121] 17 CFR § 229.303 (2002).

[122] *Polin v Conductron Corp*, 552 F2d 797, 802 fn 28 (8th Cir 1977).

[123] *Luce v Edelstein*, 802 F2d 49 (2d Cir 1986).

[124] Id at 56.

[125] *In re Donald J. Trump Casinos Securities Litigation-Taj Mahal Litigation*, 7 F3d 357 (3d Cir 1993).

The offering prospectus stated the partnership believed that revenues from the casino/hotel would be sufficient to cover the interest and principal of the bonds. The prospectus also contained numerous disclaimers and cautionary statements identifying risk factors and warned there could be no assurances that the casino/hotel would be profitable or that it will generate sufficient revenues to cover the debt service of the bonds.

The court held that "abundant and meaningful cautionary language" in the prospectus "not only . . . generally convey the riskiness of the investment, but its warnings and cautionary language directly address the substance of the statement the plaintiffs challenge."[126] The court also held that application of the "bespeaks caution" doctrine must be made on a case-by-case basis.[127] This court's reasoning that optimistic forward-looking statements are offset by "meaningful cautionary language" because the "total mix" of information is unaffected ignores the powerful affect of such optimistic forward-looking statements. This court's argument suffers from the same criticisms that were raised in the last section about how the "total mix" analysis of materiality differs from the "total affect" of multiple statements.

Despite this court fully embracing the "bespeaks caution" doctrine, this court did "not establish a sweeping rule that cautionary statements will always render misrepresentations or omissions immaterial as a matter of law."[128] Instead, the court stressed the importance of context.[129] In addition, this court held that "[t]o suffice, the cautionary statements must be substantive and tailored to the specific future projections, estimates or opinions in the prospectus the plaintiffs challenge."[130]

Another leading case illustrating the "bespeaks caution" doctrine involved an IPO followed by a $92 million "junk bond" offering by Worlds of Wonder (WOW), a high-technology toy company that achieved quick and enormous success with its only two lines of toys: Teddy Ruxpin, a talking teddy bear, and Lazer Tag, an infared toy weapon game.[131] Both offering prospectuses contained warnings of WOW's dependence on its limited number of product lines and included a number of other specific risk factors. The court held that "[e]stimates or forecasts of future performance in a prospectus are not actionable if the prospectus contains conspicuous language that bespeaks caution as to actual results. Furthermore, the cautionary lan-

[126] Id at 372.
[127] Id at 371.
[128] Id at 373 fn 16.
[129] Id at 373.
[130] Id at 371-72.
[131] *In re Worlds of Wonder Securities Litigation*, 814 F Supp 850 (ND Cal 1993).

guage must specifically disclose the nature and extent of the risks involved."[132] But other stronger instances of the "bespeaks caution" doctrine convey talismanic significance to boilerplate cautionary language that is not narrowly tailored to specific forecasts. In fact, the strongest example of the "bespeaks caution" doctrine involved a district court dismissing a securities fraud claim merely because of the existence of such nearly boilerplate cautionary language as found in these quotations: "future operating results are difficult to predict and no representation or warranty of any kind is made," "no warranty is or can be made as to the future operations or of the amount of any future income," "[t]here is no assurance that actual events will correspond with these hypothetical assumptions," and "[a]ctual results may or may not approximate such statements."[133] Instead of examining the allegedly fraudulent financial forecasts carefully and in the context of these cautionary statements, the court simply and mechanically gave prominence to such broad warnings in dismissing the case for failure to state a claim. The decision has the feel of a judicial heuristic being applied merely because of its simplicity.

Moody investing means that the "bespeaks caution" doctrine is problematic because meaningful cautionary language concerns the probability of the optimistic forward-looking statements being realized. But, if those optimistic statements have induced positive moods or emotional reactions, such feelings are insensitive to probability variations. Because these positive feelings display probability insensitivity, merely disclosing the low probability of success or the high probability of losses will not have much of an impact on those who experience such feelings. Thus, even cautionary language that is cognitively meaningful may be neither affectively nor effectively meaningful.

Judicial explanations of why meaningful cautionary language should result in the dismissal of a case fall into two categories. First is the notion that meaningful cautionary language dilutes optimistic statements to such a degree that such statements are no longer optimistic and so they could not mislead any reasonable investor.[134] Second is the idea that cautionary language takes away the right of plaintiffs to rely on forward-looking statements, even if those statements

[132] Id at 859.

[133] *Schwartz v Michaels*, [1992 Transfer Binder] Fed Sec L Rep ¶ 96,920 (SD N Y July 23, 1992).

[134] See, for example, *I. Meyer Pincus & Assoc v Oppenheimer & Co*, 936 F2d 759, 763 (2d Cir 1991) ("statements contained within the prospectus clearly 'bespeak caution,' rather than encouraging optimism."); and *Donald Trump*, F3d at 373 ("accompanying warnings and cautionary language served to negate any potentially misleading effect that the prospectus' statement about the Partnership's belief in its ability to repay the bonds would have on a reasonable investor.").

are optimistic.[135] Both explanations concern how a reasonable investor reacts to optimistic forward-looking information in light of cautionary language. Both explanations assume that a reasonable investor evaluates optimistic forward-looking information in the context of cautionary language in a purely cognitive manner. In 1994, there was a lack of "broad-based empirical studies that adequately describe how the normal investing population makes its investment decisions."[136] But, we now have plenty of empirical and experimental evidence of moody investing. Those whose moods change in response to securities disclosures may still be misled by and rely on optimistic forward-looking information despite cautionary language.

In fact, "the claim that reasonable investors cannot be misled by caution-ladden estimates and projections is probably wrong even with respect to the more sophisticated and rational segment of the investor population."[137] This is even more so with those institutional or professional investors whose moods also change in response to estimates and projections. Also, "courts that rested their bespeaks caution analysis simply on the belief that cautionary language automatically negates the optimistic message otherwise contained in forward-looking disclosures are wrong."[138] Again, this applies with even more force when and where investors react emotionally to forward-looking disclosures. Warnings of the risks and uncertainties via cautionary language do not necessarily displace positive affect because of the probability insensitivity of emotions.

The above concerns that meaningful cautionary language may lack any effect on emotions apply equally to § 27A of the Securities Act of 1933,[139] and § 21E of the Securities Exchange Act of 1934.[140] These statutory safe harbors (under the Private Securities Litigation Reform Act of 1995[141]) codified the "bespeaks caution" doctrine for those issuers who are required to file periodic reports under the Se-

[135] See, for example, *In re Integrated Resources Real Estate Ltd Partnership Sec Litig*, 815 F Supp 620, 672 (SD NY 1993) ("However, the warnings show that future presentations are merely projections, not statements of fact upon which the Plaintiffs can rely."), *appeal dismissed*, 3 F3d 49 (2d Cir 1993); *CL- Alexanders Laing & Cruickshank v Goldfeld*, 739 F Supp 158, 162 (SD NY 1990) ("cautionary language . . . does limit the extent to which a plaintiff may reasonably rely on the statements and data in the prospectus."); and *Friedman v Arizona World Nurseries Ltd Partnership*, 730 F Supp 521, 541 (SD NY 1990) ("warnings and disclaimers . . . clearly limit[ed] the degree to which an investor could reasonably rely on these [offering] documents as a forecast of the future.").

[136] Langevoort, *Disclosures* at 492 fn 73 (cited in note 115).

[137] Id at 494.

[138] Id at 497.

[139] 15 USC 77z-2 (2002).

[140] 15 USC 78u-5 (2002).

[141] Pub L No 104-67, 109 Stat 737 (amendments codified in scattered sections of 15 USC and 18 USC).

curities Exchange Act of 1934. These sections shield certain forward-looking statements from private actions under the anti-fraud provisions of the federal securities laws.[142] To be afforded such protection, a forward-looking statement must be "accompanied by meaningful cautionary statements identifying important factors that could cause actual results to differ materially from those in the forward-looking statement."[143]

These safe harbors extend to oral forward-looking statements.[144] To be afforded such protection, an oral forward-looking statement must be "accompanied by a cautionary statement . . . that actual results could [might] differ materially from those projected in the forward-looking statement"[145] and identify "a readily available written document" containing "additional information concerning factors that could cause actual results to differ materially from those in the forward-looking statement."[146] In applying the safe harbor provided by § 21E of the Securities Exchange Act of 1934,[147] the Eleventh Circuit held that cautionary language, to be meaningful, does not have to "explicitly mention the factor that ultimately belies a forward-looking statement" and that "when an investor has been warned of risks of a significance similar to that actually realized, she is sufficiently on notice of the danger of the investment to make an intelligent decision about it according to her own preferences for risk and reward."[148]

In summary, moody investing means that even when cautionary language is meaningful in a cognitive sense (as opposed to being ignored as boilerplate), it may be meaningless in a moody sense. The insights of economic models and psychological theories about moody investing suggest refining applications of both the "bespeaks caution" doctrine and statutory safe harbors codifying that doctrine to make them more sensitive to whether any cautionary language is infused with sufficient negative affect offsetting the positive feelings induced by optimistic forward-looking statements.

VII. CONCLUSIONS

This Article has critically analyzed three relatively recent doctrinal developments in jurisprudence by the United States Supreme Court and lower courts about securities litigation and enforcement. These

[142] 15 USC 77z-2(c)(1) (2002); 15 USC 78u-5(c)(1) (2002).
[143] 15 USC 77z-2(c)(1)(A)(i) (2002); 15 USC 78u-5(c)(1)(A)(i) (2002).
[144] 15 USC 77z-2(c)(2) (2002); 15 USC 78u-5(c)(2) (2002).
[145] 15 USC 77z-2(c)(2)(A)(ii) (2002); 15 USC 78u-5(c)(2)(A)(ii) (2002).
[146] 15 USC 77z-2(c)(2)(B)(i) (2002); 15 USC 78u-5(c)(2)(B)(i) (2002).
[147] 15 USC 78u-5 (2002).
[148] *Harris v Ivax Corp*, 182 F3d 799, 807 (11th Cir 1990).

three judicial trends involve the acceptance of certain defenses in securities fraud cases. The first development is judicial recognition of the so-called puffery defense, which states that mere puffery is not material and therefore not actionable under federal securities laws. The second development is judicial acceptance of the so-called truth-on-the-market defense, which exemplifies the so-called "total mix" of information analysis. The third development is the judicially created so-called "bespeaks caution" doctrine and statutory safe harbors codifying it.

This Article advocates rethinking the central notions of materiality of information and reasonableness of investors. In particular, this Article contends that the so-called puffery defense is problematic because it fails to acknowledge that puffery can affect moods and in so doing influence securities investing. This Article also recommends expanding the so-called "total mix" of information analysis by considering the "total affect" of information. This Article finally suggests an extension of the so-called "bespeaks caution" doctrine and statutory safe harbors codifying it by a determination of whether so-called "meaningful cautionary language" affects moods.

The fundamental thesis of this Article is that statements about securities in addition to their cognitive component may carry an affective component, which influences decisions by some investors. This observation means that several judicial doctrines based upon a belief about how investors process cognitive information are therefore misguided. The SEC basically does not regulate affect, and hence securities issuers and securities brokers have opportunities to exploit securities markets without facing any legal and regulatory consequences from the SEC. This means that certain statements which the SEC treats as being cognitively meaningless, such as so-called puffery, may actually have an effect, while other statements which the SEC considers to be cognitively meaningful, such as the bespeaks caution doctrine and the "total mix" analysis, actually have little or no influence upon securities investors. To be clear, this Article does not argue that everybody always engages in moody investing, but instead that certain situations are more likely to foster moody investing. The important point for legal policy is that securities issuers, brokers, and other professionals can generate such environments by their disclosures, advertising, and other attempts to persuade investors. The perspective of this Article is consistent with the recently proposed notion that people are situational characters as opposed to rational actors.[149]

[149] Jon D. Hanson and David Yosifon, *The Situation: An Introduction to the Situational Character, Critical Realism, Power Economics, and Deep Capture*, 152 U Pa L

A recent content analysis of 547 mutual funds advertisements that appeared in Barron's or Money found that such ads did not provide the information that financial theory suggests as critical for making informed and sound investment choices.[150]

Although it may seem that restricting the scope of the puffery defense; undertaking a "total affective mix" analysis; altering the scope of the protection that both the "bespeaks caution" doctrine and statutory safe harbors codifying that doctrine provides raises First Amendment concerns; so could the whole regulatory philosophy of mandatory securities disclosures; and most of securities regulation, because it concerns how securities issuers and professionals are permitted to communicate with securities investors.[151] But, the United States Supreme Court has long since rejected the position that speech employed directly or indirectly to sell securities is totally protected by the First Amendment.[152] In fact, the United States Supreme Court suggested that the commercial speech doctrine's First Amendment protections do not detract from governmental power to regulate securities.[153] Moreover, the United States Supreme Court distinguished securities regulation from the more general category of commercial speech regulation.[154]

It is worth noting, in closing, that several of the current research trends on the role of moods in persuasion that this Article applied to particular securities regulations issues have broader implications for many other legal and policy areas. For example, such ambient characteristics as candlelight and comforting, soft music can increase the

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Rev 129, 155 (2003) (arguing for "an approach to legal theory that conceptualizes people's behavior more accurately in the locus of situation" based upon social psychological experimental research). See also Edward L. Glaeser, *Psychology and the Market*, 94 Am Econ Rev 408, 409 n.2 (2004) (arguing that emotional aspects of decision-making explain the power of situations).

[150] Bruce A. Huhmann and Nalinaksha Bhattacharyya, Does Mutual Fund Advertising Practice Conform to Financial Theories of the Information Needed for Investment Decisions? (unpublished manuscript, available at www.ssrn.com) (Mar. 5, 2004).

[151] There is a nascent literature attempting to reconcile securities regulation and the First Amendment. *See* Donald E. Lively, *Securities Regulation and the Freedom of the Press: Toward A Marketplace of Ideas in the Marketplace of Investment*, 60 Wash L Rev 843 (1985); Michael E. Schoeman, *The First Amendment and Restrictions on Advertising of Securities Under the Securities Act of 1933*, 41 Bus Law 377 (1986); *The First Amendment and Federal Securities Regulation: A Symposium*, 20 Conn L Rev 261 (1988); and Symposium, *The First Amendment and Government Regulation of Economic Markets*, Brook L Rev 5 (1989).

[152] See, for example, *Paris Adult Theatre I v Slaton*, 413 US 49, 61-62, 64 (1975), and cases cited.

[153] *Ohralick v Ohio State Bar Assn*, 436 US 447, 456 (1978).

[154] *Dun & Bradstreet, Inc v Greenmoss Builders*, 472 US 749, 478 fn 5 (1985).

duration of eating.[155] In particular, advances in the marketing and social psychology literatures raise these important positive and normative questions for the legal system.[156] First, can law influence the interplay between automatically induced affective reactions and more controlled, effortful cognitive reactions?[157] Second, should law regulate differently hot emotions and cold emotions, which require more cognitive processing?[158] Third, in light of the finding that affective states of the same valence have distinct, predictable influences on persuasion, decision making, and motivation,[159] how should the legal system account for specific emotions?[160] Fourth, given that older adults

[155] Brian Wansink, *Environmental Factors That Increase the Food Intake and Consumption Volume of Unknowing Consumers*, 24 Ann Rev Nutrition 455, 460-61, 471 (2004) (reporting on how the atmospherics of eating environments influence the length of eating).

[156] This brief synopsis draws upon Patti Williams, *The Role of Emotions in Persuasion*, Address at the Association for Consumer Research Doctoral Consortium (Oct. 9, 2003).

[157] Baba Shiv and Alexander Fedorikhin, *Heart and Mind in Conflict: The Interplay of Affect and Cognition in Consumer Decision Making*, 26 J Consumer Rsrch 278, 282-90 (1999) (reporting on two experiments).

[158] Roger Giner-Sorolla, *Guilty Pleasures and Grim Necessities: Affective Attitudes in Dilemmas of Self-Control*, 80 J Personality & Soc Psychol 206, 208-19 (2001) (reporting on four studies).

[159] Rajagopal Raghunathan and Michel Tuan Pham, *All Negative Moods Are Not Equal: Motivational Influences of Anxiety and Sadness on Decision Making*, 22 Org Behav & Human Decision Processes 56, 63-72 (1999) (reporting differences in the behavior of anxious versus sad individuals for gambling and job selection); Jennifer S. Lerner & Dacher Keltner, *Fear, Anger, and Risk*, 81 J Personality & Soc Psychol 146, 147 (2001) (finding that fearful people make pessimistic risk estimates and risk-averse choices, while angry people make optimistic risk estimates and risk-seeking choices); Daniel M.T. Fessler, Elizabeth G. Pillsworth, and Thomas J. Flamson, *Angry Men and Disgusted Women: An Evolutionary Approach to the Influence of Emotions on Risk Taking*, 95 Org Behav & Human Decision Processes 107 (2004) (demonstrating that anger increases risk taking by men, but disgust decreases risk taking by women); and David DeSteno et al, *Discrete Emotions and Persuasion: The Role of Emotion-Induced Expectancies*, 86 J Personality & Soc Psychol 43, 45 (2004) (finding that specific emotions can influence the persuasive impact of messages).

[160] See, for example, Frank Ackerman and Lisa Heinzerling, Priceless: On Knowing the Price of Everything and the Value of Nothing 130-36 (New, 2004) (discussing legal implications of anxiety over dreaded risks); Rachel Moran, *Fear Unbound: A Reply to Professor Sunstein*, 42 Washburn L J 1, 5 (2002) (criticizing legal policies based on merely cognitive approaches to analyzing fear); Rachel Moran, *Law and Emotion, Love and Hate*, 11 J Contemp Legal Issues 747, 754-83 (2001) (analyzing hate crime laws and these three torts: seduction, alienation of affection, and criminal conversation); Martin E.P. Seligman, et al, *Why Lawyers Are Unhappy*, 23 Cardozo L Rev 33, 35, 39-53 (2001) (analyzing how the new field of "positive psychology" suggests ways to improve the quality of life at large law firms); and Cass R. Sunstein, *The Laws of Fear*, 115 Harv L Rev 1119 (2002) (reviewing Paul Slovic, *The Perception of Risk* (2000)).

pay more attention to emotional than rational advertising appeals,[161] what are the implications for the debate among legal scholars about paternalism?[162] Fifth, given the recent advances in the neuropsychology of affect,[163] what are the ethical, legal, and social implications of the research on the neuropsychology of affect?[164]

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[161] See, for example, Patti Williams and Aimee Drolet, *The Moderating Influence of Aging on Responses to Rational Versus Emotional Advertising Appeals*, unpublished manuscript, *available online at* http://hops.wharton.upenn.edu/people/faculty/williams.html (2003) (presenting three sets of experimental results).

[162] See, for example, Colin Camerer, et al, *Regulation for Conservatives: Behavioral Economics and the Case for "Asymmetric Paternalism"*, 151 U Pa L Rev 1211, 1212-13 (2003) (defining asymmetric paternalism as regulation that confers large benefits on decision-makers those prone to errors, while imposing little if no zero costs on completely rational decision-makers); Cass R. Sunstein and Richard H. Thaler, *Libertarian Paternalism Is Not An Oxymoron*, 70 U Chi L Rev 1159 (2003) (defining libertarian paternalism as policies that attempt to steer people's decisions in directions that promote their welfare, but without eliminating their freedom of choice); and Richard H. Thaler and Cass R. Sunstein, *Libertarian Paternalism*, 93 Am Econ Rev 175, 176-77 (2003) (arguing that paternalism is unavoidable).

[163] Gerald Zaltman, *Consumer Researchers: Take a Hike!*, 26 J Consumer Rsrch 423, 425-28 (2000) (advocating that consumer researchers draw upon neurological research on the brain). See also Joseph Dumit, *Picturing Personhood: Brian Scans and Biomedical Identity* 172-85 (Princeton, 2004) (discussing PET [Positron Emission Tomography] scans of depressed persons); and Fionnuala C. Murphy, et al, *Functional Neuroanatomy of Emotions: A Meta-Analysis*, 3 Cognitive, Affective, & Behav Neurosci 207 (2003) (applying novel statistical methods to analyze 106 PET and fMRI [functional Magnetic Resonance Imaging] studies of human emotions). See generally Mark F. Bear, et al, *Neuroscience: Exploring the Brain* 581-605 (Lippincott, Williams & Wilkins 2d ed, 2001); Neil R. Carslon, *Physiology of Behavior* 150-51, 343-72 (Allyn & Bacon 8th ed, 2004); Richard D. Lane and Lynn Nadel, eds, *Cognitive Neuroscience of Emotion* (Oxford, 2000); and Bryan Kolb and Ian Q. Whishaw, *Fundamentals of Human Neuropsychology* 516-42 (Worth, 2003).

[164] See, for example, Terrence R. Chorvat, Vernon Smith, and Kevin McCabe, Law and Neuroeconomics, George Mason University Law & Economics, Research Paper No 04-07 (2004) (exploring the legal implications of the increasing abilities to explore the brain as individuals engage in economic activity); Terrence R. Chorvat and Kevin McCabe, *The Brain and the Law*, Phil Transactions Royal Soc'y London (forthcoming) (discussing implications of current neuroscience research for how law can improve social welfare); and Henry T. Greely, *Prediction, Litigation, Privacy, and Property: Some Possible Legal and Social Implications of Advances in Neuroscience*, in Brent Garland ed, *Neuroscience and the Law: Brian, Mind, and the Sclaes of Justice* (Dana, 2004) (exploring the social and legal changes that neuroscience may lead to in these four areas: prediction, litigation, confidentiality and privacy, and patents).