

Human (Ir)rationality, Marketing, and Investment Sophistication

Errold F. Moody Jr.

PhD, LLB, MSFP, MBA, BSCE
Registered Investment Adviser
Life and Disability Insurance Analyst

This paper explores not only the irrationality of the consumer but the direct and indirect manipulation of same by industries aware of the ineptness (with specific reference to investing and insurance). There is no question that people act emotionally- at times, irresponsibly- and may/should be held accountable for certain overt (in)actions (physical suffering most notably.) But general ineptness and inconsistencies in (in)actions may simply be due to being human and must be addressed accordingly. You cannot ask humans to act in a logical and rational manner when they are inbred (in circumstances) to do otherwise. Further, those acting in a fiduciary capacity to others, certainly where monies are concerned, are fully aware of the folly of humans and have a clear duty to provide them the factual material they need to make rational decisions. The fiduciary, though also/even human, has an absolute duty and total responsibility to others in its capacity to act in a knowledgeable, forthright, objective and unemotional manner. Such individual, who is either oblivious to the emotionalism of investing or has clearly avoided the responsibility for being aware of such inconsistencies, is not a fiduciary and has breached the required ethical and professional commitment to said consumer.

Overview

During the 1970s, Daniel Kahneman and Amos Tversky initiated intensive study of the irrational behavior of people given various risk and financial scenarios. (Kahneman won the Nobel price for his work.) The field is known as Behavioral Finance/Economics. The issue has grown in importance- certainly as the computer and Internet have allowed the dissemination of all types of information within seconds. But speed and knowledge can be mutually exclusive. The simple receipt of vast amounts of “information” does not infer either the correctness of the material nor an adequate comprehension thereof. Even if both issues were properly addressed, it still does not mean that the consumer will apply rational thought or activity to either or both. Humans manipulate themselves and are readily manipulated by others- consciously and subconsciously. .

Others have taken up the research- Thayer, O'Dean, Barber, Shiller, Gilovich and many, many more in 90s and 2000s. It is not a superfluous commentary on human thought process and money. It is endemic in our psyche to act in a non rational process for a lot of issues in our lives. The emotional angle is embedded in our brains from eons ago. It can be manipulated. It is manipulated.

From a synopsis of a research paper: “While economists usually assume that agents are well informed, that their preferences are well ordered and stable, and that their behavior is controlled, selfish, and calculating, psychological research indicates that people’s judgments are biased and their preferences malleable and unstable. Further, people can be impulsive, shortsighted, trusting, and vengeful; they often have mistaken intuitions about their behavior; and they frequently effect outcomes they themselves view as bad. Briefly reviewing themes from behavioral research related to decision making, Shafir noted that psychological evidence indicates that people care more about gains and losses (of income, say) than about absolute levels and that they are loss averse and, thus, reluctant to change the status quo. They fail to disregard sunk costs, fail to consider opportunity costs, and fall prey to money illusion.

Supposedly foresighted and consistent, individuals actually have a hard time predicting their future preferences and show higher discount rates for distant than for near-term outcomes, resulting in dynamic inconsistencies. And far from being generally calculating and selfish, people seem to value fairness and procedural justice and *to be subject to passing moods and emotions* (emphasis mine).

People do not produce predetermined responses to objective experience; rather they analyze, interpret, and (mis)understand stimuli and react to those interpretations. We do not choose between objective states of the world but between our representations of those states. We are forced into that mode because our brains are not built to take alternative construals of the same event and create a canonical representation—although in the realms of language and vision our brains do just that. We understand an active or passive sentence in the same way, for instance, and we see a blackboard as a rectangle no matter the angle from which we view it.”

The above was a little involved and it is not my intent to take a formal disciplined treatise to the subject (though one almost always uses a higher discount rate for longer periods of time- the stated point above seems wrong). The authors above have commented more demonstrably than I can. My intent is to take the most simplistic of situations- for example the pricing of, say, aspirin or the taste of french fries, and show how people can be maneuvered by others- and by themselves. And then to relate such simplistic inconsistency to money and investing, securities firms and brokers, and lastly to arbitration and legal maneuvering when losses may have occurred. This last point is of critical concern since attorneys and arbitrators put a heavy emphasis on why people do not rationally expunge themselves of losers (both equities and agents) once confronted with almost irrefutable evidence of wrong. It is not to say something should not have been done. It is to say that people do not necessarily respond to certain stimuli as expected. This also dovetails with the element of trust- real and, more importantly, perceived trust. This reflects yet another level of how people can be misled (affinity fraud). I suggest that readers can view many synopses of articles on the subject at my site and explore the more technical aspects on the subject- i.e. selective exposure, primacy effects, polarization, dissonance, cognitive impairment, framing, mental accounting, availability bias and much, much more. However, as stated, it is not my intent to analytically research each and every item to prove the inbred maneuverability of John Q. Public to engage in activities that, viewed rationally and objectively, make little sense. A simplistic overview of daily activity proves the ineptness.

\$.99

Just how “irrational” is the consumer? Let’s first look at the most simplistic issue of retail pricing of “objects” to the consumer. (Paraphrased from a 12/06 Daily Review article) “Everyone is drawn to the supposed value of something priced at \$.99. For example, \$19.99 is just a penny better than \$20.00. But does it make a real difference in perception to the consumer?

Per Mark Roth, “in classical economic theory, consumers make rational choices based on price comparisons and other objective factors”. (This is the classical theory effectively debunked by the researchers identified above.) “So the consumer knows he is paying \$20.00 for the \$19.99 ‘sweater’. Right? Not necessarily say researchers. They note that ‘not only to people make purchasing decisions that are not rational but they are also particularly susceptible to the kind of offers shown above.

Why does the \$.99 elicit such response? Researchers call it the right brain digit and left digit signal.

Experiments have shown that people read from left to right. We place more importance on the first number. When students were asked to compare the prices of \$99.99 with \$150.00 and then compare \$100 to \$150, they rated the gap between \$99.99 and \$150 as being significantly larger.” Make sense? No. But that is the point of

this commentary. It is not only the fact that the lower price is ‘significantly’ better, it is also the fact that they do not objectively or intellectually understand what they are doing or saying. Think about it. Students (not just “Joe Blow” consumer) in a controlled environment are unable to objectively quantify what is happening.

The right signal is slightly different because it tells the consumer that the item is a bargain. The 99-cent ending makes the price feel less and it goes deeper than appearances. If you offer an item priced at \$22 and one at \$21.99, people are more apt to judge the \$21.99 as an item being on sale.” Makes sense? No. “But there is an ‘emotional kick’ to getting a discount that makes a difference to consumers.”

My comment- At its face, the obvious should appear. The rational process at the most basic level- buying almost any product- cannot only be subverted by simple suggestion but is masterfully successful. No matter the “intelligence” of the public, they are easily swayed by simple manipulation.

Now, one can say that the pricing “manipulation” is only valid on low priced products- grocery items for example. But every car manufacturer- actually almost all manufacturers of anything- will price items at \$xx.99 something. Admittedly car purchasers know they will have to negotiate other items- but the edge in initial pricing must be there or they will go to another seller.

Food Irrationality

An equally obvious variant on rationality is how fat the American citizen has become. The focus tends to lie on the less educated and the poor, but the middle class has sprung up (or out?) as the fastest growing segment of obesity. Per the National Center for Health Statistics, between 1960 and 1980 about 1/4 of all adults in the U.S. were considered obese- defined as 20% above desirable weight. Since 1980, that figure has “swelled” to 1/3. Another 1/3 are overweight.

Obesity is the second leading cause of unnecessary deaths, causing at least 300,000 deaths in the United States each year.

-- Annual health-care costs from obesity are about \$100 billion.

-- Obesity is more damaging to health than smoking, high levels of alcohol drinking and poverty, and it affects all major bodily systems-heart, lungs, muscles and bones.

-- Researchers have associated obesity with more than 30 medical conditions, and many agree that it's strongly related to at least 15 of those conditions. Overweight and obese individuals are at increased risk for such physical ailments as high blood pressure, Type 2 diabetes, coronary heart disease, stroke, osteoarthritis, pregnancy complications and gallstones.

There are reams of other statistics that can be offered. No matter. The issue has been around for at least two decades and anyone can see the results. Literally anyone of any intelligence can read the ‘nutritional’ value on a Twinkie, a Whopper, a Domino’s pizza. But that isn’t even necessary. The end result of too much junk food- or simply too much food period- was the expanding waistline and inability to perform many simple tasks that said something was wrong. Health suffers, health costs rise. Even worse was the fact that children are being impacted with diabetes more frequently and at a much earlier age. But nothing much happened to control an obvious irrational activity by hundreds and hundreds of thousands of consumers (and parents). The gluttony has not stopped. The consumer continues to buy and eat fat laden products to the detriment of self, family and company. It is obvious. But not to the psyche of many. Diet pills and crazes abound- yet the pounds go on. Studies have shown that only about 13% of the obese believe they have a problem (though I am dismissive of a

statistic that low for a problem that large).

Nonetheless, denial and rationalization make convenient bedfellows in our society. There was/is a complete breakdown in basic thought process. But that infers that there is a “logical basic thought process” already in play. Not necessarily. The impact of obesity does not demand any intense scrutiny of theoretical papers or long dissertations. It simply may be/is the fact that as human beings, the development of many objective thought processes may be/is circumvented by our own inbred incapacities. And absolutely by those that recognize how easy it is to manipulate these lack of brain precisions to do their own bidding. It is marketing that pervades and prevails our life- if it tastes good, feels good, looks good- it has a good chance of succeeding no matter the underlying dire repercussions now or to the future. (Those in disagreement merely have to look at the prices for the Super Bowl ads. Millions upon millions are not being paid just for fun. They ads are to make people buy what they are selling. For Doritos? Beer? Pizza? Cars?)

Sophistication

It also does not take a genius to recognize the fallacy in the thought process of far more involved issues. I state that the element of objective thought in the investment and insurance arena is limited at best- certainly as it requires a very intensive and extensive effort to even gauge the fundamentals of investing, never mind the application. When one gets to the exacting area of investment allocations, insurance contracts of literally any type, asset losses et al, one must also recognize that the investor is universally limited by any true knowledge or insight to any of these areas.

It becomes even more apparent once the focus of ‘sophistication’ is applied. The NASD and SEC have never required the fundamentals of investing be taught to its agents (alpha, beta, correlation, diversification, standard deviation, etc.). They have never provided education to its own agents and brokers regarding risk, suitability, practical implementation et al. Therefore the bulk of all brokers reflect a significant lack of knowledge and application- hence a lack of sophistication- throughout their ranks. Pundits may find heresy in that. But any review of the major licensing manuals for the Series 4, 6, 7 8, 22, 24, 52 et al from the 80s to today (Dearborn, STC, AD Banker) identify that the fundamentals of investing have never been required to sell securities. And absolutely nothing more for supervisors. As such, one cannot mandate that consumers act in an objective manner when they 1) are emotional beings in the first place, 2) are effectively clueless to an understanding of risk and reward, 3) cannot find the information anyway and 4) are relying on the perceived expertise of securities and insurance licensees. That is not to say that they are not responsible for certain actions. Of course they are. But to demand efficiency and competency to areas where factual information is either not there or purposely avoided in its dissemination is irresponsible and just plain wrong. To demand efficiency and competency of humans in very involved areas where the industry has circumvented basic fiduciary knowledge is far fetched at best. In a short phrase- if you do not understand diversification, you cannot understand risk. If you cannot understand risk, you cannot understand suitability.

As such, you cannot imply a sophistication to a non sophisticated person. It is “nice and convenient” to demand expertise of the consumer in this area- but they not only do not have the knowledge, it is not being provided to them. (In fact, the material on risk presented to consumers is universally fraudulent.) Many consumers may like to think they have the requisite investing skills (egoism) but they are not even close (the reason the purchase of individual securities). Why this disconnect, in part? Well, it is very easy for them to recognize and for everyone else to see that they do not have the physical skills of a Michael Jordan or Tiger Woods. Anyone else visually can see the deception, ineptness, fallacy of those who say they are as good. Not so with investments or certain

other ‘cerebral’ activities. Whose to say that they did not “make a killing in the market”. Whose to say that the stock they bought wasn’t meteoric? Unless the investor actually admits to a failure, one may never know how bad the situation was. Denial, embarrassment and an unwillingness to confront those who were trusted permits the status quo to continue.

I admit to all that I lacked this insight to human emotionalism years ago when I had to review various incomprehensible (to me) decisionmaking on the part of many investors. Investing, properly performed, has no emotionalism at all. Yet such inconsistency/incompetency with emotionalism soon became very clear with experience and reading. It is simply how people think and react. One client kept a bad hodgepodge of stocks because they had been given to her by her grandmother. A relative refused to sell Digital stock (D rated) after her husband died. It had gone from \$200 to \$54 at the date of death (both she and her husband had been giddy about his company’s stock as it soared and in denial as it fell). It subsequently dropped to \$16. One could say that the effect of his dying was such an emotional tragedy that she could not think logically. But the statement itself is the problem- emotional activities can preclude logical thought processes. People buy stocks of their companies because they believe- or want to believe- that the company is one of the best managed; they make an exceptional product; they are part of a family and so on. But then there is Enron, Worldcom, Adelphia and many more that show the disconnect from objective analysis.

Risk

This leads to an exceptional Time magazine article in December 4, 2006, Why We Worry About the Things We Shouldn’t and Ignore the Things We Should, by Jeff Kluger. It specifically reinforces the illogic thought process of people no matter the education or social status. I have taken the liberty of using this material extensively and then likening it to the real world of investments.

“Shadowed by peril as we are, you would think we’d get pretty good at distinguishing the risks likeliest to do us in from the ones that are statistical long shots. But you would be wrong. We agonize over avian flu, which to date has killed precisely no one in the U.S., but have to be cajoled into getting vaccinated for the common flu, which contributes to the deaths of 36,000 Americans each year. We wring our hands over the mad cow pathogen that might be (but almost certainly isn’t) in our hamburger and worry far less about the cholesterol that contributes to the heart disease that kills 700,000 of us annually.

We pride ourselves on being the only species that understands the concept of risk, yet we have a confounding habit of worrying about mere possibilities while ignoring probabilities, building barricades against perceived dangers while leaving ourselves exposed to real ones.”

My comment- the entire industry is bereft of the fundamentals of investing. Yet the industry markets a (perceived) capability that is relied upon by the unsuspecting. That’s not the real point here (though it is a major factor addressed separately.) It is that few of the risks of investing have truthfully been submitted to the consumer (mandatory under suitability rules). The ‘Mad Cow’ *does* exist in the hierarchy of investing (risk of loss goes up) and is like a cholesterol health risk to financial security. But no one has told them- or simply told them various sophomoric homilies of buy and hold, risk goes down over time, etc. All by an investment cadre (NASD, SEC, NASAA) that have no training in the field. I repeat- the risk of loss goes up over time- exactly the opposite of the statements made to investors daily in almost all investment plans. Further, the odds of the Mad Cow in investing is not a statistical anomaly. The situation does happen several times within one’s lifetime. Is it the consumers fault that they do not understand the problem and act irrationally? In part, yes. It is rare that a sole focus lies on one side only. By the same token, the odds have been hidden by the misinformation and fraud of

an industry that has known of the problem for decades yet refused to divulge said odds and the resulting financial devastation.

Consumers have an additional huge and exposed risk that has been purposely deleted by the industry. They are led to the purchase of single issue securities without a clue to the inherent risk, both unsystematic and systematic. They have little clue to the exposure to large sections of Enron, Worldcom (Digital) or the like till most recently. Even that is emotionally negated by a good 2006 and current 2007 market and the likes of Jim Cramer telling people the hottest stock to buy while swinging a chair around. They have no clue to the underlying huge exposure to loss of their funds due to a changeable economy (note the term economy, not market). Even when confronted with some bad news, they watch TV (and the daily volatility of the market) expecting to reach some empathic conclusion about what to do. Even less, it can be the suggestion of a TV personality. Even a ranting one (Jim Cramer again). Does this make sense? No. Or how about Morningstar "stars?" Are they reflective of what is happening? Or what will happen? No- only what did happen. The morass of varying "information" or noise causes an additional level of emotionally charged panic selling or, in my experience, simple procrastination to do nothing at all. Even a denial that anything is wrong. Logical, rational, objective? No. Human? Yes.

But it is what the majority do? Obviously, it is a lot of homework and reading. That said, it is a monumental effort to find the information. And, for the most part, they won't know it if they did find it (unsystematic risk will not bring one iota of attention. Nor will the name Zvi Bodie, co author of Investments used by CFAs. Further, the Money mags, WSJ et al have not addressed risks for the consumer in almost all cases. Neither have the professional magazines like Financial Planner, Investment Advisor, Worth, and more.) Is that the consumer's fault? No. Is it their fault that they therefore act irresponsibly? Perhaps- but that is open to the analysis of the situation and the degree of harm (murder versus manslaughter versus self defense).

Article, "..... 20% of all adults still smoke; nearly 20% of drivers and more than 30% of backseat passengers don't use seat belts; two-thirds of us are overweight or obese. We dash across the street against the light and build our homes in hurricane-prone areas--and when they're demolished by a storm, we rebuild in the same spot. Sensible calculation of real-world risks is a multidimensional math problem that sometimes seems entirely beyond us.

Part of the problem we have with evaluating risk is that we're moving through the modern world with what is, in many respects, a prehistoric brain. We may think we've grown accustomed to living in a predator-free environment in which most of the dangers of the wild have been driven away or fenced off, but our central nervous system--evolving at a glacial pace--hasn't got the message."

"There are two systems for analyzing risk: an automatic, intuitive system and a more thoughtful analysis," says Paul Slovic, professor of psychology at the University of Oregon. "Our perception of risk lives largely in our feelings, so most of the time we're operating on system No. 1."

My comment- it truly is "feelings" that permeate our thought process. Twenty five years ago when I was new to the business of securities and sales, I was told, "you sell the sizzle, not the steak." It was true then and more so now. It is a perception of reward- with nil insight to risk (same as eating junk food. Great taste- no thought to future implications) Even the mention of risk. Or when done, they are generally confronted with only a partial measure of the element or that which is categorically wrong (see separate commentary on standard deviation). Thoughtful analysis of investing and risk takes an inordinate amount of time and energy. So, few engage in the effort. It is frustrating that not many make such an effort. It is fair in some measure to deride investors for the

lack of effort no matter that the material is hard to find. They have to do something. But it is not fair to blame them for being human- and that is many times the overt problem. You cannot blame them if the truth is hidden.

Article, “.....There's clearly an evolutionary advantage to this natural timorousness. If we're mindful of real dangers and flee when they arise, we're more likely to live long enough to pass on our genes. But evolutionary rewards also come to those who stand and fight, those willing to take risks--and even suffer injury--in pursuit of prey or a mate.

These two impulses--to engage danger or run from it--are constantly at war and have left us with a well-tuned ability to evaluate the costs and payoffs of short-term risk. That, however, is not the kind we tend to face in contemporary society, where threats don't necessarily spring from behind a bush. They're much more likely to come to us in the form of rumors or news broadcasts or an escalation of the federal terrorism-threat level from orange to red. It's when the risk and the consequences of our response unfold more slowly, experts say, that our analytic system kicks in. This gives us plenty of opportunity to overthink--or underthink--the problem, and this is where we start to bollix things up.”

My comment- the problem within the investment arena is a reference to my previous comments- rumors, broadcasts, cocktail parties, and an “analysis” of short term rewards tend to provide the personal need to do “something”- generally to buy a product/stock- and to do it now otherwise the “timing “ is lost. But I do disagree with the statement of ‘the consequences of response unfold more slowly’ in that there has been little attempt by investors to do the hard analytical work to gauge the risk of investing no matter the timing. They tend to use superficial methods- if at all- or trend to someone they “trust” to guide them. That is banal- but human. And the short term impact can be 2000- 2002, Enron, Worldcom.....

On the other side is the inability/unwillingness/anguish/fear/denial/embarrassment to sell an investment when it goes down precipitously- even tanks.

Though I demand more, the offset is, where can they go? Where is the true information? The investment industry (mostly securities) has specifically failed to instruct its agents and supervisors nor to provide any valid education to the investor. There is nothing on diversification to brokers. If you do not know that, you cannot define risk. If you cannot define risk, you cannot define suitability. What is out there is generally sophomoric and wrong. Money magazine, Smart Money, Consumer Reports, Kiplinger's, New York Times, WSJ et al do provide certain valid commentary. But they are only about 75% to 90% correct with most articles- the problem being that the missing pieces are the critical areas to understanding risk. (Suggesting a stock for purchase without identifying the unsystematic risk is a breach of journalistic integrity. That said, the writers are generally unknowledgeable about investing- certainly far less understanding than those they interview. They simply paraphrase the simplistic and useless idioms of the unknowledgeable. The public remains unawares of the truth and what they correctly should think and do. That they therefore go further astray in their investing analysis is not their fault.)

Article- “Which risks get excessive attention and which get overlooked depends on a hierarchy of factors. Perhaps the most important is dread. For most creatures, all death is created pretty much equal. Whether you're eaten by a lion or drowned in a river, your time on the savanna is over. That's not the way humans see things. The more pain or suffering something causes, the more we tend to fear it; the cleaner or at least quicker the death, the less it troubles us.

We dread anything that poses a greater risk for cancer more than the things that injure us in a traditional way, like an auto crash. That's the dread factor." In other words, the more we dread, the more anxious we get, and the more anxious we get, the less precisely we calculate the odds of the thing actually happening. "It's called probability neglect," per a University of Chicago professor of law specializing in risk regulation." (People are much more worried about things which are very unlikely to happen, but which would be dreadful if they did, than things which are relatively common but less serious.)

My Comments- A confirmation/elucidation of that is the prospect theory developed by Kahneman and Tversky as a way to incorporate some of the emotional and psychological quirks of human behavior into economic theory. One of the quirks Kahneman and Tversky observed is loss aversion, our tendency to strongly prefer to avoid a loss rather than to acquire a gain. (Some studies suggest that the fear of a loss has twice the psychological impact as the lure of a gain.) So humans tend to forego the statistical activity of computing the loss (which they are unable to do anyway without competency with a financial calculator) and/or simply avoid the issue altogether in the pretence that it will not happen.

The problem is that the reasons for some of the 'dread' absolutely exists in investing. This comment does not relate to day to day movements/losses- though that can be an issue for those who are simply far too emotional for equities. That issue is generally dispelled (and generally correctly) by the industry in not viewing the market's daily gyrations. What is missing is the problem of exacerbating losses far beyond the knowledge or comprehension of the public. The depth of losses increase as an allocation lengthens in time. (Further, it is not simply the time the new investments are made but time that anyone has ever invested money.) This is anathema to the industry's continual use that risk declines over time. No matter the dread, no dread; the fear, no fear- the truth of the positions must be identified. That the investor may treat the statistical issues emotionally is not a reason to not present them. Being put into a future position of having 50% less than what was projected is an entirely different position than a market correction (appendix). It is entirely different from a infantile rule of thumb that buy and hold will correct any market losses. It is true that the repercussions may be relatively moot for those with lots of money (though still debatable). For the rest, they will be long dead before the market will 'restore' them. Their retirement will be decimated and their lives in financial and emotional turmoil. It is the duty of the agent/broker to understand such nuances and correct the invalid assumptions. That the investor "remains human" to the emotions is no reason to either avoid the fact or, certainly, to exploit the shortcoming.

Article- "Unfamiliar threats are similarly scarier than familiar ones. The next E. coli outbreak is unlikely to shake you up as much as the previous one, and any that follow will trouble you even less. In some respects, this is a good thing, particularly if the initial reaction was excessive. But it's also unavoidable given our tendency to habituate to any unpleasant stimulus, from pain and sorrow to a persistent car alarm.

The problem with habituation is that it can also lead us to go to the other extreme, worrying not too much but too little. Sept. 11 and Hurricane Katrina brought calls to build impregnable walls against such tragedies ever occurring again. But despite the vows, both New Orleans and the nation's security apparatus remain dangerously leaky. "People call these crises wake-up calls," says the director of the National Center for Disaster Preparedness. "But they're more like snooze alarms. We get agitated for a while, and then we don't follow through. (Think about the recent reaction to gas prices. Last year it was a major calamity- now they are more resigned to the fact that they are simply going to have to pay the costs rather than raise a big stink about the issue.

We similarly misjudge risk if we feel we have some control over it, even if it's an illusory sense. The decision to

drive instead of fly is the most commonly cited example.”

My comment- the risk of loss in the future is something that few investors people even heard about. The constant declaration of buy and hold or basic rebalancing may work under ideal conditions- but a 1973/74 or 2000/ 2002- can completely annihilate retirements (see addendum). Such statistically anticipated descents in the market also cause pension funds to falter (as seen from 2002 forward); municipalities to underfund almost all their pensions (San Diego and a multitude of others); companies terminating defined benefit plans, et al. Consumers have misjudged risk primarily because the governmental entities that supposedly protect the novice and naive have refused to provide its licensed agents the description or understanding of the risk of the market. I repeat- the fundamentals are not taught to agents. Have never been taught. Are not taught today. The fundamentals are not offered to consumers. Not by the SEC, not by the NASD and not by independent entities. The increased risk of loss is not even considered - because the entities have breached their fiduciary duty by refusing to require only the most sophomoric of facts. The consumer will continue to misjudge risk both irrationally due to the ‘human condition’ as well as rationally since they have no idea of where to go to find out what can happen and what to do. In fact, they will undergauge risk since they are not shown the extremes of loss.

The article- “Then too there's what Ropeik and others call "optimism bias," the thing that makes us glower when we see someone driving erratically while talking on a cell phone, even if we've done the very same thing, perhaps on the very same day. We tell ourselves we're different, because our call was shorter or our business was urgent or we were able to pay attention to the road even as we talked. What optimism bias comes down to, however, is the convenient belief that risks that apply to other people don't apply to us.”

My comment- Optimism bias has always played a roll in human emotion. Regardless of past mistakes by either ourselves or others, people feel they can do better- at least ‘this time’. Even some that were devastated in 2000-2002 are now buying individual issues via Jim Cramer’s rants; some money magazine’s best mutual fund (which changes the next month); some new hedge fund technique that supposedly provides huge returns..... It is illogical- but it is what people do no matter the offsetting effort.

The article- “Finally, and for many of us irresistibly, there's the irrational way we react to risky behavior that also confers some benefit. It would be a lot easier to acknowledge the perils of smoking cigarettes or eating too much ice cream if they weren't such pleasures. Drinking too much confers certain benefits too, as do risky sex, recreational drugs and uncounted other indulgences. This is especially true since, in most cases, the gratification is immediate and the penalty, if it comes at all, comes later. With enough time and enough temptation, we can talk ourselves into ignoring almost any long-term costs. "These things are fun or hip, even if they can be lethal," says Ropeik. "And that pleasure is a benefit we weigh.”

My comment- look at the dotcom. Risk was generally not recognize- though it did set (I believe) in some portion in the back of the consumer’s mind. However, even that should have suggested an exposure to such high risk tech stock and funds was wrong. But the ‘forgiving’- though still irrational- offset was the phenomenal (and unsubstantiated) price increases and the immediate gratification. More than that, it was immediate validation of the investor’s thought process and research (though not that much different than throwing a dart). It validated the five minutes of effort in finding and buying a stock that went up. It was hip and fun to talk about the winnings at the cocktail party, golf game, whatever. It felt good, looked good and would ‘go on forever’ -at least that is what TV personalities were saying. It never made sense but the instant and supposed continuing gratification belied common sense. Rational thought? No. Not even close. The end result was hundreds upon

hundreds of thousands of victims held out to the absurd marketing of the unknowledgeable and uncaring. Over \$1 trillion was lost in 2000- 2002 by those that never understood risk and do not so today.

Of course some were more of a 'victim' than others. The article notes that "if these reactions are true for all of us--and they are--then you might think that all of us would react to risk in the same way. But that's clearly not the case. Some people enjoy roller coasters; others won't go near them. Some skydive; others can't imagine it. Not only are thrill seekers not put off by risk, but they're drawn to it, seduced by the mortal frisson that would leave many of us cold. "There's an internal thermostat that seems to control this," says John Adams of University College London. "That set point varies from person to person and circumstance to circumstance."

My comment- I certainly agree that some fall more for risk, marketing, TV endorsements and more. But it is still inconceivable that so many were lured into doing so much so wrong so often and so long (see also herd behavior). I had people calling and Emailing on why I did not provide insight to IPOs (initial public offerings) in my newsletters- but who never even bought stock before.

The article- "Given these idiosyncratic reactions, is it possible to have a rational response to risk? If we can't agree on whether something is dangerous or not or, if it is, whether it's a risk worth taking, how can we come up with policies that keep all of us reasonably safe?"

My comment- Perhaps one can act rationally. But what if the risk is not only not identified but what risk there is is marketed as essentially inconsequential (the market always comes back). One cannot apply a rational or knowledgeable response to an unknown risk. And a neglect of the risk brought on by a fraud of the industry.

Article- "One way to start would be to look at the numbers. Anyone can agree that a 1-in-1 million risk is better than 1 in 10, and 1 in 10 is better than 50-50. But things are almost always more complicated than that, a fact that corporations, politicians and other folks with agendas to push often deftly exploit."

My comments- Unfortunately the numbers are not there to look at. Save for a few analysts, the industry does not have the requisite skills or has buried the facts. Is that the fault of the consumer in acting irrationally? Is it not the fault of the industry in exploiting the absence of the truth and acting fraudulently?

Article- "Take the lure of the comforting percentage. In one study, Slovic found that people were more likely to approve of airline safety-equipment purchases if they were told that it could "potentially save 98% of 150 people" than if they were told it could "potentially save 150 people." On its face this reaction makes no sense, since 98% of 150 people is only 147. But there was something about the specificity of the number that the respondents found appealing. "Experts tend to use very analytic, mathematical tools to calculate risk," Slovic says. "The public tends to go more on their feelings."

My comment- the last sentence says it all. "The public tends to go more with their feelings." Absolutely true.

"There's also the art of the flawed comparison. Officials are fond of reassuring the public that they run a greater risk from, for example, drowning in the bathtub, which kills 320 Americans a year, than from a new peril like mad cow disease, which has so far killed no one in the U.S. That's pretty reassuring--and very misleading. The fact is that anyone over 6 and under 80--which is to say, the overwhelming majority of the U.S. population--faces almost no risk of perishing in the tub. For most of us, the apples of drowning and the oranges of mad cow disease don't line up in any useful way."

My comment: Here is the industry- buy and hold and/or the market will come back Be it Suze Orman, even John Bogle, buy and hold was the invalid mantra of effectively all advisers. It is unquestionably reassuring to those with losses. Yet almost totally misleading since by the time the market may come back, the investor is dead. "Professional advisers" were/are either unaware of the odds or consciously omitted the statistical element of risk Regarding the first element- how is it possible that the entire industry was unaware of the statistical risk (even diversification)? Every B/D firm have staff capable of doing the research- or are at least responsible for hiring out the activity if not competent. No matter the effort, all sales must be suitable. All must understand risk. The refusal to display the odds of this risk is a breach of duty. But is that the fault of the consumer who may make emotional decisions? It is not. They cannot be held to standards that are quite obviously being consciously avoided by the industry.

Article- "It's not impossible for us to become sharper risk handicappers. For one thing, we can take the time to learn more about the real odds. A professor of social and decision sciences at Carnegie Mellon University recently asked a panel of 20 communications and finance experts what they thought the likelihood of human-to-human transmission of avian flu would be in the next three years. They put the figure at 60%. He then asked a panel of 20 medical experts the same question. Their answer: 10%. "There's reason to be critical of experts "but not to replace their judgment with laypeople's opinions."

My comment- I doubt that the consumer will become much sharper- certainly under the current SECs and NASD's lack of knowledge and interest in pursuing knowledge coupled with the private industry's breach of duty for its failure to provide risk analysis it has known for years (or should have known). Additionally, the public does not use knowledge when presented. I have had the largest independent site on planning on the Internet for 10 years. It is just information and knowledge with practical application first and foremost. But it is universally used just by professionals in the industry. Consumers- generally opting for something quick and free (emotionalism and marketing once again)- are loathe to spend the time doing research. Jim Cramer is fast, easy and "fun". Morningstar stars- though referencing a period already expired, are also quick and easy. There are experts out there- but generally few know who they are. It's easier, more fun and certainly more social to hear about how to make a fast buck in a certain stock from a 'trusted' friend

Article- "The government must also play a role in this, finding ways to frame warnings so that people understand them. John Graham, formerly the administrator of the federal Office of Information and Regulatory Affairs, says risk analysts suffer no end of headaches trying to get Americans to understand that while nuclear power plants do pose dangers, the more imminent peril to both people and the planet comes from the toxins produced by coal-fired plants. Similarly, pollutants in fish can be dangerous, but for most people--with the possible exception of small children and women of childbearing age--the cardiac benefits of fish easily outweigh the risks. "If you can get people to compare," he says, "then you're in a situation where you can get them to make reasoned choices."

My comment- for over 15 years I have tried to get the NASD, SEC, NASAA, DOL, AARP, et al to recognize that they have never taught licensees the fundamentals of investing; that advisors are effectively clueless to risk and reward because they have never been taught same. It may be 'nice' that a few entities talk about standard deviation, correlation, diversification- but from whence did it come? Not in basic licensing nor in mandatory continuing education. A few minute discussion in some sales presentation or lunch seminar is invalid. Further, attorneys have never had courses in same. Nor arbitrators. What about CFPs and other designations? Diversification is wrong. Standard deviation is wrong. Correlation is a description with no real life relevance at all. Dollar cost averaging is wrong. If this material is either missing or wrong, by what hierarchy of review do

we lay the understanding of this missing sophistication and knowledge on the consumer? The article is correct- government must play a role in education. But it won't happen without some significant changes in the industry- and it has to start with someone knowing something. For pundits who think this commentary cannot be true, see the NASD glossary. Diversification is not there. Nothing more needs to be said.

The article finishes- "We can do better, however, and leaders in government and industry can help. The residual parts of our primitive brains may not give us any choice beyond fighting or fleeing. But the higher reasoning we've developed over millions of years gives us far greater--and far more nuanced--options. Officials who provide hard, honest numbers and a citizenry that takes the time to understand them would not only mean a smarter nation, but a safer one."

My comment- after teaching licensing classes for over a decade as well as various courses for universities and private organizations, it was readily apparent that there was a significant dichotomy between what governmental and regulatory entities tested on and the real life application thereof. They might dovetail, but one had no idea when, for what reason, nor any idea of the final outcome. Pure happenstance? Close.

Officials have refused to provide hard honest numbers. Is that the consumers fault they won't become smarter? No. That they may misuse them even if received is not the point here. The industry has thwarted any effort for hard numbers and real life application. The NASD states that it is only a procedural entity, not a substantive one (per their own statement to me 2006) - yet is now coming under fire for its lack of insight and control over EIAs, variable annuities, high mutual fund fees and more. Consumers might like to take the time to consider the real facts- but they are not offered. They cannot be held to the level of an investment sophisticate if the officials refuse to provide realities on which to weigh risk. As such, the reality of the investment world will be left to the following:

With growing empirical evidence on persistent overconfidence, much attention has been paid to the question of why people are overconfident and experience does not lead them to become more realistic, especially in activities like investing where results can be calculated ex post. Existing studies demonstrate that self-serving attribution bias (past successes tend to exacerbate overconfidence as people take too much credit for their successes, while past failures tend to be ignored as people blame their failures on forces beyond their control), confirmatory bias and cognitive dissonance (tendency to overweigh data confirming prior beliefs while to dismiss data contradicting prior beliefs), illusion of control, and forces related to evolution and tournaments or contests, can all contribute to generating persistent overconfidence throughout the life cycle. Gervais and Odean (2001) find that, with attribution bias at work, people may even learn to become more overconfident rather than more realistic over the life cycle.

Griffin and Tversky

"A conventional valuation [of stocks] which is established [by] the mass psychology of a large number of ignorant individuals is liable to change violently as the result of a sudden fluctuation of opinion due to factors which do not really matter much to the prospective yield, since there will be no strong roots of conviction to hold it steady. . . resulting in unreasoning waves of optimistic and pessimistic sentiment."

John Maynard Keynes

If none of the fundamentals are even provided to advisers, what can one expect. And when consumers look to others, the emotionalism still prevails.

Experience

Journalists, brokers, attorneys and more literally all point to the number of years the investor has been active in the investing arena as evidence of expertise. That they purchased stocks or funds 20 years ago from two three or four B/D firms is the simple criteria. That the mere purchase of a complicated product with no or incorrect knowledge to risk is going to provide a sophistication is tantamount to a suggestion that a witch doctor with 20 + years of experience has developed all the skills of a trained physician- even one just out of medical school. No reasonable person would validate that claim. No formal training nor 'just being alive' is a prerequisite for skill- even understanding.

And what has been available for 'knowledge' during that 20 years? A few stories from a money magazine extolling the next hot "thing" to buy or a Jim Cramer ranting and raving about a singular stock- and no or wrong caution about diversification or risk? Where is the expertise? Where is the sophistication? That is not to say that such magazines or advisers do not contain something of value. But they are written by journalists and writers- generally with no background in investing nor an understanding of the fundamentals. They also tend to interview those that are unknowing of such fundamentals. I point again to the fact that there is nothing on the fundamentals of investing in the Series 7 or 24 for brokers. Those interviewing a CFP need to recognize that it is nothing more than one semester on money. Diversification is not addressed. The Brinson Beebower study is wrong.

Fro those that find such commentary hard to believe, remember that the SEC, NASD et al have been active in the investing arena for far, far longer than any one individual or company and have yet to recognize diversification, risk, et al of investing has any place regarding the sales of a product. Yes, they do require that a sale be suitable et al, but have never provided any insight to what is actually 'suitable'. But without an understanding to the fundamentals of investing, it is effectively impossible to determine the suitability. I do not believe that such organizations know diversification. The recent morass over fiduciary duty is moot. If you do not know the fundamentals of investing, you cannot be a fiduciary.

You cannot denote experience nor sophistication to the 'novice' where you do not have experience nor sophistication by the 'professionals'. It is illogical.

Trust- real or perceived

Let's assume that other individuals recognize their inability to perform certain functions- investing is the major focus- but it is also where they may not have the licenses- insurance and real estate for example and are effectively required to look for competency in others. Do they do the necessary homework? Generally, no. Referrals prevail. That's it- just a referral since they perceive that the one being referred has passed some prior scrutiny by the referee. Not even close.

Trust - Once again an overriding human emotion to trust those that we trust. That may appear redundant but the point is this: once trust is established, it is a hard connection to sever. Unfortunately, the initial trust may be undeserved since little homework may have been done to validate the honor. For many years, state regulators

have cautioned the elderly, in particular, (though the essence is for all) about affinity fraud and scams. That references groups and organizations- churches most definitely- where people of similar tastes, experiences, likes, dislikes, et al congregate. And that is many times all that is needed- a similarity that confers on the individual that others in the group are (generally) likeable and trustworthy.

Per “ Who are the Trustworthy, We Think” Olof Johansson-Stenman, Göteborg University, Sweden, “From an individual point of view, it is less clear that increased trust is beneficial, since it depends on whether others will exploit the vulnerability that is associated with trusting someone. On the other hand, it is always beneficial for an individual to be perceived trustworthy, whether he actually is trustworthy or not. Obvious real life examples include the possibility to borrowing money, selling a used car and getting a job.

But it is not just in the activity of the group (AA, square dancing, cooking). The ‘trust’ transcends further. From Johansson-Stenman, “that people belonging to the same group as oneself is evaluated and treated better than people outside the group, which is a phenomenon that psychologists such as Brewer (1979) have long observed.” This is a social identity as “the individuals’ knowledge that they belong to certain social groups together with some emotional and value significance to them of their group membership.” According to social identity theory, one important reason why people display in-group bias is that this enhances social identity, thereby elevating the self-esteem or self-image of group members.

It is a ‘great’ place to talk about all sorts of other issues- including money. And that becomes the problem with investing, insurance and more. It is a willingness of people to let down their guard by transferring the personal relationship within the group to more esoteric areas that have nothing to do with the group’s activities. Per Johansson-Stenman- “We found a significant effect of similarity on perceived trustworthiness in each of the dimensions analyzed. Thus, it seems that perceived trustworthiness decreases quite generally with the social distance. (The corollary is that perceived trust increases the closer the social contact.)” Note the specific point however- perceived trust.

It is not necessarily a total release of an investigation, but it may come close. The social graces, a few drinks, a game of golf, a dinner here and there- these all tend to reduce the rational research that should take place. The same lack of research is evident in referrals. The entire insurance business (and a multitude of others) revolves around the ability of an agent to get referrals to other new clients. The problem is that the next client assumes that a formal objective review of the agent’s qualifications has been conducted. But the referrals go on and on with nary a further insight since the new client’s trust the person giving the referral. Make sense? Perhaps with physical items- car, refrigerator, etc where one can actually touch the item and compare prices. Not so with complicated financial instruments (which includes single issues securities, bonds, and most other equities) where the physicality is absent. And the product itself is far from transparent (the ability to look inside the company et al and really see/find out what is going on). As such, referrals are one of the worst ways to conduct business in the securities, insurance and financial planning business since there is a significant lack of competency. If a securities broker had not formal training in the fundamentals of investing (ask any one about diversification), then what does the referral do? If an insurance agent has never been taught about no lapse policies, why is it valid to use one? If EIAs are still offered fraudulently, does a “trusted” referral alter the fraud and incompetency? If almost all financial plans state risk incorrectly, is it O.K. if 80% of the plan is correct? And where the 20% offsets the rest? Does a referral make it all better? For pundits of this commentary, I simply refer back to the fundamentals for investing. If you do not know diversification, you cannot get to risk. If you cannot get to risk, you cannot get to suitability. Not one person alive can go to a series 7 manual and find any statistical reference to diversification. Not one person can go to an insurance manual for no lapse. Not one

person can go to the CFP study manuals and find correct standard deviation. At least 99% of computerized plans are wrong. Those issues are distinct from human emotion. Consumers do not know that they people they trust are generally devoid of the knowledge base to provide competent- certainly sophisticated- advice. They may be chided for not doing much homework, but not for the fact that the knowledge of what to seek may be hidden from them.

Johansson-Stenman- We also see that both the young (below 30) and the old (above 45) believe that people around the age of 50 are more trustworthy than people around 25, although the latter respondents think so to a larger extent. In the light of the findings here, this may not be because people of the same generation as themselves are considered more trustworthy generally, but rather that they believe that the receivers will behave particularly trustworthy towards them. Are the respondents' judgments that older people are more trustworthy on average correct? According to the findings by List (2004) they probably are. He found in a number of field experiments that the strength of non-selfish social preferences increases with age, corrected for other variables." As an additional insight, all bodies of research I have explored also show that the elderly are more trusting of others than are younger consumers. They have lived in a different era where a "handshake was a bond". They still want to believe this trust still exists in others.

That it is emotional is true. That it is human is true. But it has little to do with competency in the securities, insurance and planning industries. But that's just how people act. It's human nature. The group hierarchy overrides logic. From the same report- "The distinction is important since I may trust another person because I believe that he or she (e.g. ones spouse or close friend) will behave particularly trustworthy towards me. A Hells Angels member Adam may trust another member Bill more than he trusts Carl who is not a member, but at the same time realize that Bill is generally less trustworthy than Carl." And, "we are interested in the broader underlying issue of whether it is true that we consider people that are more similar to ourselves to be more trustworthy, *ceteris paribus*? The answer from this study is Yes."

A continuation is this- once the trust established, it will be hard to break. Humans are loathe to admit most personal mistakes and will hold onto a belief- though undeserved, wrong, false, et al- until the hurt can no longer be tolerated. I have done it- so has literally everyone else. It is human nature. The difference is that there is a time and place to allow emotionalism and a time to break free. Investing is not an emotional arena- though generally practiced that way. I have been indignant with such emotional predispositions with investors, but I simply have to recognize the limitations of the consumer/investor in dealing with such areas logically. I don't like it. I find it difficult to defend because I do not approach this area with any emotion at all. It's just research. Any fraud or wrong must be eliminated as quickly as feasible. But it simply exists as the way people interact with others. My point being this: if a wrong has been committed, the focus for the wrong has to remain primarily with those causing the wrong. Demanding that the aggrieved immediately resolve the problem rationally by distancing himself from the cause does not have the real life application. People do strange things for strange reasons. Smoking, drinking too much, philandering- all should be stopped. But it is not human nature to necessarily do so. To sell out losses mandates that the losses will become 'real'- not simply on paper. To tell a trusted ally, friend, co worker, relative that they are no longer welcome or wanted is hard to do. It means that one faces the fact that their trust was misplaced. That they acted emotionally, irresponsibly. That they were wrong.

I am not stating that the aggrieved is relieved of all responsibility- it depends on the situation. But one cannot dictate a unilateral and immediate retreat from a person or situation where a harm has occurred- save for life threatening issues, fire, etc. Humans act emotionally with investments no matter how we wish to (mis)interpret

their thought pattern Outsiders analyzing same see the dichotomy. Hence the reason why Kahneman and Tversky research was so highly regarded in their research on the fallacy of rationality.

Consider the dotcom era again. Of course there were analysts that suggested an aberrant euphoria, but it was an emotional giddiness of the herd that allowed the devastation. The mantra of buy and hold and stay the course because the market always comes back was the industry's (wrong) answer to all investing. Consumers that followed that 'advice' were led to equity losses of 44% or more once the statistical fact of loss came to bear. Are the consumers to blame for allowing the devastation simply because they are less than rational? Obviously some(?) element can be laid at their feet. But consumers cannot learn about the real risk of investing since the industry, from top down, has refused to allow those selling/offering a product to address the risks of investing. The judgement of the consumers is flawed. But the judgement (actually knowledge) of the 'experts' was, and is, absolutely flawed. There is a breach of duty at the 'expert' and 'sophisticated' level. So which judgement is to be suspect when the experts are either inherently unknowledgeable or have definitively breached their fiduciary duty through the failure to provide correct risk statistics? I demand that consumers do homework. But how far can they go to become 'sharper risk handicappers' if the material on risk is missing? If the fundamentals of investing have never been and are still not taught to the industry's own agents? For those that find the position dubious, simply look at the following. This is the NASD web site investment glossary <http://www.nasd.com/Resources/Glossary/index.htm>. Seek diversification, Monte Carlo, standard deviation. Nothing. Nothing for the industry, nothing for the consumer. Just miscellaneous terms that will provide no insight to investing or allocations. Certainly nothing to risk. Hence, nothing towards the mandated suitability.

Summary

For the next decade or better, the consumer is not apt to become a better handicapper. They will be subject to the continued failure of adequate knowledge along with the highly successful marketing of the industry. They will remain unsophisticated and, quite obviously, emotional at the same level as currently exists. They will continue to trust those that are 'similar' in looks, religion, activities et al without the corresponding research. Education to the masses regarding money is absolutely necessary. But it can only go so far since the level of sophistication will be lost on most of them. How to handle credit cards and checking accounts may be the major extent of the effort. Consumers do not have the interest in the hard numbers nor the intellect or competency to grasp them. Agents must have such training and the understanding of how products work. Such effort will unquestionably limit the number of agents because many will not be able to grasp these prerequisites. It is mandatory that one grasp the fundamentals of investing. At a minimum, you must understand diversification. If you do not understand diversification, you cannot understand risk. If you can not understand risk, you cannot understand suitability.

Marketing to the emotional will continue in the future with little offset to the reality of the world. Agents with a fiduciary duty must recognize the error of such presentations and mandatorily present the true applications. Consumers must be held to some standard, but only with the identification that they are, in fact, human, and are easily misled by others- certainly where money is involved.

The term 'sophisticated' can be used for only a minute number of consumers. Being human can be applied to all of them. That is the dichotomy in the real world of investing. No matter- the fiduciary has a responsibility to know the implications.