



FOCUS CONSULTING GROUP

APPLIED BEHAVIORAL FINANCE: From Theory to Practice

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Behavioral Finance has created a huge body of evidence to support the idea that so-called rational man is anything but. In truth, we are more like Homer Simpson than the logical Mr. Spock on *Star Trek*. But knowing this is a good first step: self-awareness leads the way to change. As any good 12-stepper knows, acknowledging and addressing the problem is the way through to the solution. When we fully accept that we are all-too-human and prone to decision biases, we can then set about attaining investment “sobriety.” We can honestly and courageously examine our own decision making and our team’s decision making to see where they need improving. The 12-step analogy is useful in creating a solution because a team—rather than anyone individual—is more likely to provide the necessary feedback for correcting biases. We need to trust our teammates to spot our biases and then candidly report them to us. Many investors harbor the self-deluding notion that “other people cannot see their blindspots, but I can see mine.” Overconfidence bias (in this case, the belief that I am more self-aware than others) is possibly the biggest hindrance to correcting biases.

Most readers of this paper will have a good understanding of familiar behavioral finance biases. I have listed the ones encountered most frequently below:

- Overconfidence (overestimating of skills and abilities)
- Anchoring (over-weighting certain facts or trends)
- Confirmation (selectively screening data to fit your theory)
- Framing (creating bias in the way data or stories are presented)
- Regret (rationalizing decisions to avoid negative feelings)
- Hindsight (rewriting history)
- Self-attribution (my successes are skill, failures are bad luck)
- Representativeness (distorting reality due to mind’s tendency to create patterns)
- Cognitive dissonance (distort reality based on need for internal harmony)
- Ambiguity aversion (prefer to stick with the “known” to avoid uncertainty and chaos)
- Endowment/Status Quo (poor decisions based on inertia. Recent example: half of a room full of 50 CIO’s acknowledged that someone on their senior staff was not a good fit for the team, but were unwilling to take action.)



For our purposes in working with investment teams, we tend to view these biases along two axes:

1. Information gathering (*the collection of data*) v. Decision making (*the process of reviewing information and deciding*); and,
2. Individual (*how a bias affects a person working alone*) v. Team (*how a bias affects team decision-making*).

This four-square shows where some of the biases appear regularly:

	Information Gathering	Decision Making
Individual	Recency Anchoring Confirmation Availability	Loss aversion Overconfidence Regret
Team	Confirmation Anchoring	Cognitive dissonance (leading to groupthink) Framing Illusion of Control Self-attribution

Consider each box above.

Individual/Information Gathering:

When an analyst is working on her own, she may fall into one of the traps listed in this box. For example, confirmation bias suggests that we, as humans, are all-too-eager to confirm our belief that we are right. Our tendency is to unconsciously look for information that supports our position. When we interview management, we may ask questions that tee-up the answers we want to hear. Even when management provides disconfirming answers, we may ignore or underweight them. We bring back a biased view of the investment based on selectively choosing data.

Individual/Decision Making:

This box assumes that the information in front of the analyst or PM is essentially accurate. The trouble in this box becomes the way our mind processes the information to reach a decision. For example, an analyst may present a sell recommendation on one of the PM's stocks. It may be an excellent and evenhanded account of the situation and why the stock is no longer attractive. The PM may override any inclination to sell the stock because it is a loser in his portfolio. He suffers from loss aversion or regret aversion, commonly known as "get-even-itis." That is, a view that "I'll sell it as soon as it gets back to where we bought it."



Team/Information Gathering:

When a team of analysts collects information on a company, there is often a lead analyst who knows the situation better than the others. This person can unwittingly influence the team by anchoring them to his own assumptions about the investment. For example, if he likes a company he may cite a number of success stories to his colleagues, indicating that the company's management is superior. It may be difficult then for his colleagues—especially if they are junior analysts—to listen to the information objectively.

Team Decision Making:

The final box represent the most commonly discussed bias for teams: group think. In technical terms, the group is suffering from cognitive dissonance, that is, the unwillingness to remain independent in thought and accept the necessary conflict. Many firms have recognized this trap and have purposely created combative cultures to overcome people's natural tendency to seek approval. In any event, world class decision making falls apart when teams refuse to think independently and speak candidly.

Behavioral Finance and the Investment Process

Our approach to working with clients emphasizes the model above but drops the biases directly into their investment process. A typical investment process is described below, with the most common biases encountered in each phase.

Investment Process Phase	Steps in this Phase	Common Behavioral Biases
<i>Investment Philosophy</i>	<ul style="list-style-type: none">• Clear philosophy and statement of competitive edge• Product objectives	Over-confidence
<i>Data collection & Screening</i>	<ul style="list-style-type: none">• Articulation of process• Clear screening philosophy• Appropriate resources• Consistent application	Confirmation
<i>Research & analysis</i>	<ul style="list-style-type: none">• Defined process and inputs• Good coverage ratios• Framework for evaluation• Value-added knowledge• Efficient communication	Anchoring Recency Confirmation Optimism
<i>Issue selection</i>	<ul style="list-style-type: none">• Relative evaluation framework• Risk/return objectives for each security• Clear selection rationale	Framing Overconfidence Confirmation Cognitive dissonance



<i>Portfolio construction</i>	<ul style="list-style-type: none"> • Manage to product objectives • Security, sector weighting rationale is clear • Risk parameters are monitored • Sell/rebalancing process 	Regret aversion Status quo/conservatism Self-control (following disciplines as stated)
<i>Feedback and Reflection</i>	<ul style="list-style-type: none"> • Ongoing feedback for each team member: 360's • Post-mortems on winners and losers • Journal tracking 	Hindsight Cognitive dissonance

The preceding table is helpful in applying the main tools for correcting biases: self-awareness, emotional intelligence, and team feedback. Team members can use the chart above to ask themselves where they are most likely to fall into a trap. They can also use it for the critical step of providing candid feedback to their colleagues about their possible blindspots. Again, referring back to the 12-step analogy, most of us are in vigorous denial of our biases. Like the alcoholic who must eventually fess up to his drinking problem, we must come out of denial and ask for honest feedback about our biases. Then, we can choose to “work the program” described below.

The Program for Correcting Behavioral Biases

These are the critical components of a solution:

1. Choosing curiosity over defensiveness (addresses overconfidence especially)
2. Choosing candor over concealing (addresses many blindspots around biases such as anchoring and recency)
3. Choosing accountability over concealing (addresses hindsight and self-attribution bias, Greatly improves post mortems)
4. 360 Feedback from team members on each person’s biases (critical to self-awareness)
5. Journal tracking and accurate post-mortems (key to learning and improving)
6. Understanding and managing emotions that hinder decision making
7. Strategies for teams to support each other in improved decision making

1) *Choosing curiosity over defensiveness*

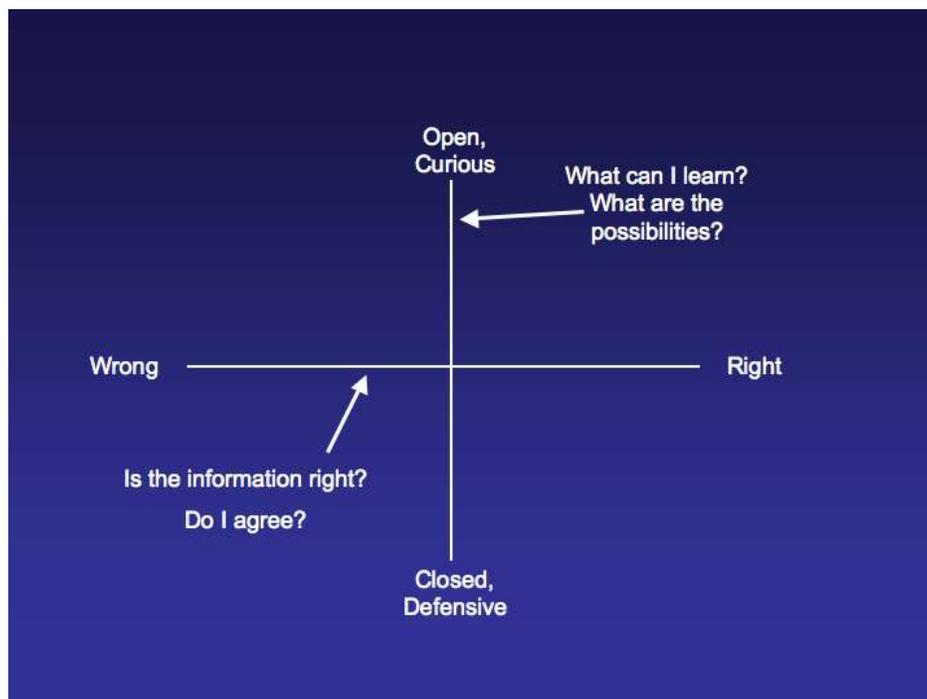
At any given moment, a person can be in one of two general states: a) open, curious, and receptive or b) closed, defensive, and resistant. The former is characterized by a desire to learn, the latter is characterized by a need to be right. The former feels light and playful; the latter heavy and serious. We consider it to be a choice to shift from one state to the other. Unlike being born with a preference for being left or right handed, each of us can choose whether to be curious or defensive. The key skill involved is recognizing when one has gotten defensive.

When a person develops this skill, then she can more readily decide to shift back to being open and curious. The benefit to being open and curious is that our thinking quality greatly improves. We can only be truly creative and at the top of our thinking game when we are playful and open.



When working with investment teams, we encourage them to watch for defensiveness in team discussions and to invite people who seem defensive to move “above the line,” that is, return to an open and curious attitude. Most investment professionals have little difficulty in getting “the hang” of this practice. The one difficulty that we encounter is described below.

All people have filters on their awareness, in other words, we all screen incoming data based on the way our minds are hard-wired and based on what we deem important. (Both nature and nurture) On the nature side, our minds are wired to place our attention on different factors in our environment. For example, some people are constantly scanning for danger and see the glass “half empty” at all times. Others are scanning for imperfections and are seen as Perfectionists. Still others are highly aware of the needs and desires of other people and are seen as Caretakers. And so on. On the nurture side, as investment professionals, we are rewarded for making timely and accurate decisions. So, we develop the ability to judge information as being “accurate and right” or “inaccurate and wrong.” This ability becomes a filter to our thinking because it occurs unconsciously and instantaneously. When someone proposes an idea that we judge as “inaccurate and wrong” we eliminate further thinking. We dismiss the idea because it fails to pass our first filter. The graph below shows the two relevant modes of thinking on two different axes: a) curious v. defensive (above and below the line) and b) right/accurate v. wrong/inaccurate.



Many of the common behavioral finance biases, like overconfidence or hindsight, can be overcome if professionals become expert at moving between these two axes. I find it useful to remind myself often of the Buffett quote: “I get great enjoyment out of disproving my best loved



theories.” Or as Will Rogers put it, “It ain’t what we don’t know that gets us in trouble, it’s what we know that ain’t so!”

Anyone who has read Taleb (“Fooled by Randomness” or “The Black Swan”) knows that his central point is that humans live in a world of false certainty. We make up stories to explain reality—thereby comforting ourselves—but the stories are not true. The Efficient Market Hypothesis was a beautiful story about how markets perfectly capture all the data and price assets correctly at all times. Only in recent years have the proponents come forth to say, “Well, it seems that there are some inefficiencies...”

Investment teams that practice and perfect the skill of choosing curiosity over defensiveness will be far less likely to be overconfident. Curiosity is a healthy antidote to being cocksure about things. The simple practice of saying, “I wonder if...” is very powerful.

Curiosity also helps reduce the drama that heats up when two team members launch into “story” wars, that is, they argue from the point of view of “I’m right, you’re wrong” rather than simply “here’s how I see it.” Remaining curious helps preserve the constructive attitude of “I have an opinion on this topic, but I am open to other views.” Often we get the question: “but doesn’t it take forever to reach a conclusion if we suspend judgment on every issue!?” Yes, it probably would bring on a Hamlet-like paralysis (“to be or not to be”) but the remedy is found in a prudent use of decision rights.” Decision rights allow teams to move quickly past blockages by having a process in place for deciding when to linger on an issue—discuss it more fully and apply curiosity—and when to move on. The key point here is that individual and team effectiveness will increase dramatically if members learn to take a few seconds to shift out of “defensiveness and certainty” into “curiosity and wonder.”

An important factor in dealing with overconfidence is the investment industry’s passion for passion. The value “passion” is chosen as a core value by nearly half of the investment teams we work with. They link passion to conviction, and the battle cry is: We want analysts with conviction! In fact, one British firm hired us to instill more conviction into their analysts. (We brought with us a huge hypodermic with the word PASSION written on the side of it ...) Based on all the solid research about overconfidence, we would argue just the opposite: good analysts need to develop an ability to shift into curiosity. A good analyst can still display lots of passion for their work, (Buffett: “I tap-dance to work each day”) and specifically their latest idea, but their ability to have meaningful and useful dialog will increase if they are curious rather than convicted.

To summarize then, overconfidence indicates that people tend to overrate their knowledge. Learning to develop a curious attitude is the antidote for overconfidence. It allows feedback from others to penetrate the filters that otherwise would defend and dismiss new—possibly relevant—information.

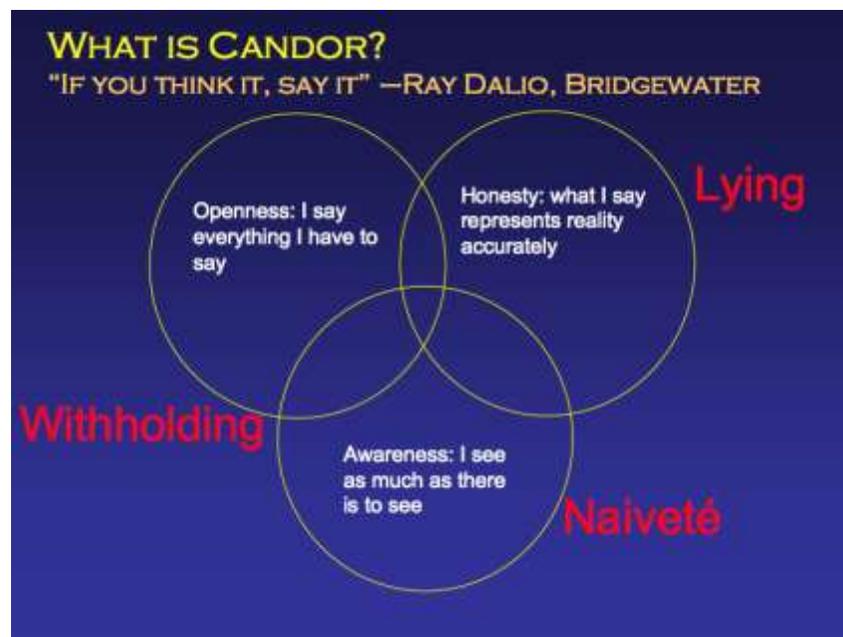


2) Choosing candor over concealing

A second important tool in the battle against biases is candor. Notice the order in which these concepts are presented: first, curiosity; second, candor. If a person has no curiosity, that is, he is certain that he is right—and we’ve met a number of them!—then there is little use for candor. Despite how direct you are with such a person, they will either not hear the feedback or dismiss it entirely. For many of the biases, this attitude is fatal. I once witnessed a PM turn down an idea to buy one of the auto companies because of his wife’s experience in one of their showrooms. Clearly, the PM had anchored on this one data point to the exclusion of every other relevant piece of information. So curiosity precedes candor because it opens the door for a more rigorous discussion. In today’s parlance, curiosity and candor allow ideas to be fully vetted.

Candor is hugely important in neutralizing biases because it allows for a much fuller picture of reality. If we accept the premise that all of us suffer from biases, then our only real hope of seeing reality more clearly¹ is to have a team of people all practice candor. That is, each member of the team fully reveals his view of the situation. While doing so, he is careful to separate fact (i.e., something that is unarguably true: “the company is headquartered in Boston”) from story (i.e., something inference or opinion that is arguable: “this company has the best management in the business”). When a team becomes knowledgeable about the common behavioral biases, they can use this knowledge to add in candid comments like: “My story is that Joe is biased towards recency: he’s overweighting the most recent two quarters and not looking at the longer term results.” If team members learn how to share these views in a non-threatening way, they learn to hold them lightly, not needing to be right—then other team members tend to be better at maintaining curiosity as they listen.

Our view of candor is captured in the following graphic:



¹ Jack Welch: “The team that sees reality most clearly wins”



The first two circles, “Honesty” and “Openness,” are straightforward. Team members tell the truth as they see it, and they do not withhold opinions or information from each other. The third circle “Awareness” means that team members make it their business to continuously learn and expand their knowledge base. In this case, they would learn the biases and watch for them during discussions. When they see one, they would be willing to provide the feedback.

When a team practices both curiosity and candor, they create a feedback rich environment. And in our view, feedback is the key factor in overcoming behavioral biases. By their very nature, the biases are unconscious. We don’t wake up in the morning thinking, “I’m going to bias my viewpoint with self-attribution and loss aversion today!” Rather, these biases run on their own in the backgrounds of our psyches. Our major defense is help from colleagues.

3) *Choosing Accountability over Blaming*

A third behavior, accountability, is also useful in combating biases. We define accountability as follows:

$$\text{Accountability} = \text{Taking 100\% responsibility} + \text{Making and keeping clear agreements}$$

The first part of this equation-taking 100% responsibility--is especially useful in correcting biases. Many professional investors fall into the trap of self-attribution. That is, they take credit for their successes (attributing them to skill) and they dismiss their failures (attributing them to bad luck or OTHER people’s mistakes). This trap has two negative consequences:

1. It contributes to the bias overconfidence because it fuels a person’s ego to think that they are making wonderful decisions
2. It contributes to creating a “blame” culture in which people point fingers and work to avoid being blamed.

To elaborate on the second point, blame cultures kill the chance for accurate post-mortems. I’ve attended stock reviews in which there is a heavy emphasis on “finding who screwed up and hanging them.” The level of silence in these rooms is deafening. No one speaks. The body postures reveal fear (hunched over, head and eyes down). Absolutely nothing is learned in these reviews. For those readers who have a hard time imagining such fear driven cultures, consider this quote from an email we received:

“One defining characteristic that the leader shared with the other senior managers was that any action that would suggest that an underling in the command-control hierarchy generated an idea was to be viewed as a threat and quelled immediately. Staff is dumb and is to be directed. Thinking is dangerous! A fear driven environment is a great way to maintain control. Don’t trust anyone.”



Blame is rampant in cultures like this. Post-mortems are few and far between and useless when conducted. Smart CIA's create a culture in which each person takes responsibility for the results. In other words, they ask themselves, "How did I contribute to the team getting this result?" Blaming is not welcomed or allowed in any way. The emphasis is on learning and improving the process. Post Mortems conducted in these cultures are tremendously useful for learning.

4) 360 Feedback from teammates

If a team has developed a high level of trust in one another by practicing the three behaviors described above, then they can conduct productive feedback sessions, helping one another to identify and correct biases. The recommended way to do these sessions is to list all the members of the team on a grid, with names across one axis and behavioral biases across the other. Have team members score each of their team mates from 1 - 10 (10 = excellent). Provide these scores to each team member and then allow each one to take a turn asking the team about their scores. Often the first time this exercise is performed the findings are meager because team mates have not been watching for the biases. This exercise helps sensitize people to behavioral biases, so that team members improve their skill at spotting and reporting biases.

5) Journal tracking and accurate post-mortems (key to learning and improving)

Peter Lynch was famous for keeping investment journals which chronicled his decisions. We highly recommend this technique for tracking decisions. Given the tendency of all of us to rewrite history (hindsight bias), we need a reliable way to monitor investment decisions, so we can later perform accurate post-mortems.

A fixed income team conducted a post-mortem in October of 2007 for a key decision made in May of 2007. The original decision in May was to change the duration bet, based on a forecast for interest rates. The team leader, who usually operates in a collaborative way, made this call unilaterally and simply told the traders to make the necessary trades.

In retrospect, the decision was a bad call and cost the firm considerable performance. In the post-mortem each team member owned up to their unwillingness to challenge the boss's call. The discussion took place after a thorough review of the principles of "curiosity" and "candor" and was viewed as "very helpful" by all team members. The boss acknowledged his bias of falling into overconfidence, believing that his experience and expertise allowed him to see things that his younger team missed. The team members acknowledged their bias of cognitive dissonance: disagreeing with the boss's decision but not wanting to confront him.

At year-end all team members and the boss will feel this mistake in their wallets, given that the loss of performance will significantly impact their bonuses. One of the key insights from this post-mortem is that journals would have greatly helped the discussion. Several team members could not remember exactly what their thoughts/reactions were at the time of the decision. In this sense, the team suffered from hindsight bias.



Journals provide a remedy. It's incredibly useful to be able to read a journal entry that exactly describes your thinking about a particular decision. Most of us would be surprised at how faulty our memories are. Accurate journals and regularly scheduled sessions to review investment decisions and results is a core component of a world-class research effort.

6) Understanding and managing emotions that hinder decision making

Seated at a table with an investment team consisting of 3 PM's and 6 analysts, I was discussing the benefits of emotional intelligence to top investment decision making. Emotional intelligence (made famous by Dan Goleman) consists of four skills:

1. Identifying one's own thoughts and feelings (*self-awareness*)
2. Managing one's thoughts and feelings (*self-control*)
3. Identifying other people's thoughts and feelings (*social awareness*)
4. Managing interactions with others (*relationship skills*)

At one point during the discussion, I asked the group if anyone had a strong emotion that they were aware of. The lead PM responded,

"Yes, I participated in an IPO offering this morning, which the broker told me was oversubscribed 10 times. Once we had locked in our position, I watched the stock fall 15% in value. The broker completely sandbagged me."

"What is the feeling associated with this experience?" I asked

"I'm pissed off." The others in the room laughed and exchanged a few jokes.

"Can you locate the anger in your body?" I continued.

"What do you mean?" He said with a puzzled look.

"All feelings exist somewhere in our body. So, I'm asking where do you feel the anger in your body? Tight shoulders, stiff neck, racing heartbeat?"

"Neck and shoulders," he said.

"And what do you plan to do with the anger?" I said.

Without hesitating, the PM said, "I'm gonna call this guy and give him a piece of my mind."

"Will that make you feel better?"

"You bet!" Again, the room erupted in laughter.



“When will you call him?”

The PM thought about it and responded, “At 4 pm this afternoon, that’s when he is available.”

“And how effective will you be at your work between now and then?” I asked.

“What do you mean?”

“I mean, will you be able to do your best thinking between now and then? Will you be able to put full attention on your work?”

“No,” he conceded. “I’ll thinking about my call to this guy at 4 pm.”

“What if you had a reliable way to release the anger so that you could fully concentrate on your work? Would that be helpful?”

“Yeah, absolutely,” he said.

Well, there are such techniques. Our firm has been researching and developing them for years. We call them “shift moves.” They range in complexity from simple actions like taking a walk or deep breathing to elaborate procedures like the one that Hale Dwoskin has developed in *The Sedona Method*. They all aim at achieving the same end result: returning a person to a calm, optimal state of mind.

All too often the recommendation for investment professionals is “leave your feelings at the door.” Because this is impossible (our feelings come right along with us), what this advice really translates to is “stuff your feelings.” More sophisticated research in this area suggests a different strategy: “most effective decision makers were those who had strong feelings while making decisions but were able to prevent their emotions from impeding their ability to reason.” (study by Myeong-Gu Seo of the University of Maryland business school and Lisa Feldman Barrett of Boston College Psychology department). The study goes on to say,

“Managers and employees should try to increase their emotional self-awareness and learn to describe and differentiate their feelings-especially negative ones-during decision making. Participants with a more refined ability to perceive and describe their feelings, the study also found, were better at preventing their emotions from biasing their decisions.”

To overcome behavioral finance biases, investors must close the gap between their IQ’s (typically very high) and their EQ’s (emotional intelligence quota, typically low).

A simple way to start increasing EQ is to learn to identify feelings by classifying them in one of four main buckets:



1. Happy (*which ranges on a continuum from mildly content to ecstatic*)
2. Sad (*which ranges from blue to grief stricken*)
3. Angry (*which ranges from frustrated to rageful*)
4. Fear (*which ranges from anxious to terrified*)

When professionals become skillful at identifying and naming their emotions, they can begin to control their emotions rather than having their emotions control them.

7) Strategies for teams to support each other in improved decision-making

As I've suggested in my references to the 12-step program, group support is perhaps the most powerful ally in overcoming behavioral biases. Teams that experience high levels of trust and respect for one another can form conscious agreements around providing useful feedback. Because biases happen at an unconscious level, feedback from colleagues is the most reliable way to detect them. (The fellow with the "kick me" sign on his back can learn of it in one of two ways: 1) someone can tell him, or 2) after enough kicks in the pants, he may figure it out on his own!)

Trust is the key to candid and useful feedback. Without it, team mates will be unwilling to give or receive the necessary feedback. Trust is built upon two important pillars. They are character and competence, defined below.

1. Character
 - *Integrity*: lining up words and actions
 - *Intention*: showing concern for others, win/win
2. Competence:
 - *Capabilities*: talents and skills
 - *Results*: delivering on promised results

When working with an investment team, we explain these two factors and then ask the team to rate themselves and their team mates on both factors. Each team member receives his average score and range for both character and competence. They also see the results for the entire team, so they can place themselves in each continuum.

The follow up assignment to this feedback exercise is to have the team members meet privately in the weeks to come to discuss their scores and develop a plan for improvement. Teams that commit to high levels of respect and trust are in a position to greatly reduce behavioral biases and decision traps.



Summary

Excellent theory has resulted from years of research into behavioral biases. The gap exists between this theory and real world applications. Using practices of self-awareness and emotional intelligence, investors and their teams can greatly improve their effectiveness in avoiding common traps.

Please consider this paper an invitation to dialogue with us about Behavioral Finance. We welcome your thoughts and insights. 

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