

A Disposition-based Fraud Model: Theoretical Integration and Research Agenda

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Abstract: For several decades, most discussion on financial fraud has centered on the fraud triangle, which has evolved over time through various extensions and reinterpretations. While this has served the profession well, a void exists in the identification of the human side of the act. To address this void, this research develops a model to explain the role of human desires, intentions, and actions in indulgence of, or resistance to, the act of financial fraud. Evidence from religion, philosophy, sociology, neurology, behavioral economics, and social psychology is integrated to identify and support a new fraud model, called the disposition-based fraud model (DFM). To articulate the model, its two primary components, disposition and temptation, are further developed and extended. Although the DFM is generally applicable to any act of fraud, this paper focuses on executive fraud. The similarities and differences between the DFM and extant fraud models are discussed. Additionally, research evidence from the literature is examined in light of the DFM and implications of the model in corporate governance are discussed. Finally, suggestions for further research are offered and the DFM's strengths and limitations are noted.

Keywords Financial fraud; Disposition; Temptation; Self-regulation; Self-efficacy; Executive fraud.

Introduction

Much of our current understanding of why perpetrators commit fraud is grounded in the Fraud Triangle (hereafter, FT) (Dorminey et al., 2010). Undoubtedly, the FT seems to have served moderately well in a fight to tame financial fraud (Hogan et al., 2008). Several revisions to the FT have been proposed over time. For example, Albrecht et al. (1984) advocate replacing rationalizations with a more observable construct, personal integrity, measured using what they call a fraud scale. Wolfe and Hermanson (2004) proposed that the triangle might better serve financial fraud prevention and detection if it were turned into a diamond, with the actor's capability as the fourth condition. Choo and Tan (2007) appended the "Broken Trust Theory" introduced by Albrecht et al. (2004) and an "American Dream" theory to the FT to extend its explanatory power. Dorminey et al. (2012) speak of MICE (money, ideology, coercion, and ego (entitlement), that could offer a way to assess the actor's motivation to commit fraud – a question that the FT does not fully address.

While we rely on what has made reasonable sense in deciphering our past experiences, vigilance requires that we heed Kahneman (2011, 277): "once you have accepted a theory and used it as a tool in your thinking, it is extraordinarily difficult to notice its flaws. If you come upon an observation that does not seem to fit the model, you assume that there must be a perfectly good explanation that you are somehow missing." So, not unlike patch management in the software industry, several "patches" have been proposed in the spirit of creating "perfectly good explanations" of what the original FT can't

explain. Boyle et al. (2015) assert that adding more factors to the FT doesn't appear to be helpful. But the familiar is so difficult to give up, to make room for a new thought (Kuhn, 1962). In response to such concerns, this study proposes an entirely new model of financial fraud, with little reliance on the existing fraud models.

Financial Fraud Models

Cressey (1953) hypothesized that, for an act of fraud to occur, each of three criteria must be present: 1) the actor experiences a non-shareable financial problem (pressure), 2) the actor has an opportunity to violate a position of trust (opportunity), and 3) the actor is able to adjust his self-perception such that he believes such a violation does not constitute criminal behavior (rationalization). Taking roots in Cressey's work, the FT emerged: the presence of the three conditions indicates the possibility of a financial fraud. Over time, the FT has been somewhat modified and extended (see Dorminey et al., 2012) as a reaction to perceived deficiencies of the original FT. Albrecht et al. (1984) propose that the condition, *rationalization*, should be replaced by *integrity*, and Dorminey et al. (2010, 21) warn that sources of pressure may include other than the originally identified personal financial need.

A fundamental weakness of the FT is that the attributes of the actor and circumstances under which the act occurs are not separately identified. Limited attention to the character of the actor masks any reliable and stable fraud risk factors that may help prevent fraud. The three conditions of the triangle do not logically lead to the process involved, and a mere transactional view of fraud limits our holistic understanding of the act. The FT does not explain why under certain conditions a fraudulent act may *not* occur, or why a fraudster could resist the indulgence under different circumstances. Or, under identical conditions in two firms, why one executive might commit fraud while the other resists it? The whole universe of non-actors – executives who did not and may not commit fraud – is not explicitly considered in the FT. The alternative proposed here promises the explanatory power to address such unanswered questions.

A behavioral model with potential explanatory power in financial fraud cases is the Theory of Planned Behavior (hereafter, TPB) introduced by Ajzen (1991) and his colleagues (Fishbein and Ajzen, 1975). The four dimensions of the TPB are: attitude (toward fraud), subjective norms, perceived behavioral control (PBC), and moral obligation. The TPB, which emerged from a more comprehensive consideration of the Theory of Reasoned Action, is not a fraud model as such; however, its purpose is to explain any planned, or intentioned, action. Since fraudulent acts are essentially planned behaviors contingent upon the will of the actor, the TPB framework is relevant in financial fraud research.

Several studies have focused on an application of the TPB to the financial fraud puzzle. Carpenter and Reimers (2005) conducted a survey, followed by an experimental design to study the relevance of the TPB in the context of fraudulent financial reporting by managers. They examined the effects of attitude, subjective norm, and PBC on a manager's decision to improperly defer the recognition of expenses so that the company can meet an earnings target. The results suggest that attitude and subjective norm both have significant influence on prediction of behavioral intent, while the PBC did not contribute much to this influence. The authors surmise that this last result may have to do with the

nature of the sample and possible lack of relevant experience of the subjects. They assert that the results of the two studies provide strong evidence that the TPB can help explain ethical decision-making by business managers.

Recognizing the potential of the TPB in explaining financial fraud as a human act, Cohen et al. (2010) sought to implant the TPB dimensions in the FT. They amplified the rationalization condition of the FT with the four specific dimensions of the TPB: attitude (toward fraud), subjective norms, perceived behavioral control (PBC), and moral obligation. They searched for evidence from U.S. press coverage contained in the Factiva database regarding the reported 39 corporate fraud cases. Using content analysis, they identified frequencies of the two FT conditions (incentive/pressures, opportunities) and the four TPB elements (which replaced the rationalization condition) in media coverage through content analysis of the articles. Tracking the presence of each element in media coverage, they revealed that, with the exception of subjective norms, frequencies were present for each of the elements. The component, *subjective norms*, is less prevalent in the press, probably because it is more difficult to identify, even with the hindsight perspective of journalists (Cohen et al., 2010, 285).

In sum, the limitations of the FT are evident, and research to enhance our understanding of financial reporting fraud has received attention. It seems, however, that a patchwork approach to retrofit the FT is constrained by the original design of the fraud triangle. A fresh look at the nature of financial fraud with particular attention to the human side is warranted.

DFM: Disposition-based Fraud Model

Since fraud is a deliberate behavioral outcome, its explanation involves both the scenario and the actor; to quote Willem Bongers (1905): "As always it is the environment that is the cause of the crimes taking place; it is the individual differences which explain in part who is the one to commit them" (p. 137). Indeed, behavioral outcomes are inevitably a function of a complex interaction between organism and environment (Bem and Funder, 1978, 485-486). Therefore, a complete model of human behavior should include the two interacting elements: organism (agent) and environment (context).

A fraud model that focuses on the human side of the act would likely focus on the behavior of the actors (and of others surrounding the actors); it would emphasize process over transactions (such as commit, conceal, convert), and it would take into consideration an open system of interaction between nature and nurture, the human identity involved in the act, and the circumstances surrounding the act itself. The drivers of motivation for action belong primarily to the circumstances, while the drivers of motivation for the desire to act volitionally are sourced in the nature of the human being (Setiya, 2007). Thus, human choice is a result of complex interaction between the motivation for action and the motivation for desire.

This model frames financial fraud as an act of indulgence: People commit fraud by indulging in a moral temptation, leading to an intentional act. I posit that one's character is in some way involved in whether one indulges or resists moral temptations, and examine the role of human traits that make up one's constitution, which I call disposition. Disposition feeds the motivation for desire and belongs to

the organism, while temptations that lure people are constantly emerging in the environment, the locus of the motivation for action. Thus, the Disposition-based Fraud Model (DFM) is essentially an interaction between (a) circumstances represented by stimuli that make up the moral temptation on hand, and (b) the actor's character (disposition). A breakdown in one's moral resolves follows a judgment shift (discussed later) resulting in an intentional action. One's disposition mediates one's response to moral temptation. Specifically, I argue that other-regarding agents exhibit better self-control, and thus are more able to delay gratification than self-regarding agents. Figure 1 presents the basic view of DFM.

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Whereas the DFM is generally applicable, my attempt here is to focus on the chief executive for various reasons. First, the Securities and Exchange Commission (SEC) continues to name senior management in its enforcement releases for some level of involvement in fraud, with the CEO/CFO named in almost all cases¹ (Beasley et al., 2010). Second, the failure of leadership to self-regulate often translates into a devastating impact on the company's stakeholders. If an organization is vulnerable to material fraud, chances are it is the leadership of the organization that plays a role in the episode.² The COSO 1998-2007 Report (Beasley et al. 2010, 2) notes that the high level of involvement of top management has important implications for the control environment. Finally, the upper echelon perspective (Hambrick and Mason, 1984) suggests that organizational outcomes are reflections of the values and cognitive bases of powerful actors in the organization. Without limiting the DFM, we therefore focus on a particular group of actors, the executive leadership.

The rest of the paper is organized as follows. An initial discussion of temptation – both moral and non-moral – and its characteristics is followed by the articulation of character traits called human disposition and its bipolar states (other-regarding and self-regarding). Next, variables that result in either indulgence in or resistance to moral temptation are introduced. Support for the model from extant research is identified, implications for corporate governance as related to financial fraud are presented, and suggestions for further research are offered.

Motivation for Action

Temptation

Temptation has been studied over centuries in various disciplines, including religion (St. Ignatius, 1548), philosophy (Holton, 2009; Bratman, 1987; Hume, 2000), sociology and social psychology (Mischel, 2014; Bandura, 2002; Baumeister, 1996), and health care (Trope and Fishback, 2000). In the New Testament,

¹ Table 5 of the report (p. 14) shows that an overwhelming majority was composed of senior management, including vice-president, controller, CEO, CFO, and CEO/CFO.

² This notion is supported by the studies suggesting tone at the top as a key fraud risk factor (see, e.g., Apostolou et al, 2001).

the word *temptation* has been used to convey meanings such as to test, examine, or put on trial.³ The indulgence to temptation represents volitional exercise of one's intentions. Holton (2009) considers one's resolutions as a class of intentions, and suggests that yielding to temptation involves an *unreasonable* revision of a resolve in the face of pressures from contrary inclinations. Falling prey to temptation involves compromising the future for something potentially less valuable or even harmful, but can be indulged in at the very moment. It is what you crave,⁴ independent of what – and how much – you have. Kozlowski, the former Tyco CEO, had enough, yet he succumbed.

Temptation begins with the presence of relevant stimuli that a potential actor observes. An extended observation of the object of stimuli materializes in intimacy with what the stimuli seem to offer; the intimacy propagates into obsession for it. Ultimately, if one yields to temptation, the obsession converts into a transgression. Holton (2009, 57) explains how we work through tempting stimuli that invoke a volitional act:

1. Deliberating: Considering the options that are available, and their likely consequences.
2. Judging: Deciding that a certain action is best, given the considerations raised in the process of deliberation. Judging results in a belief.
3. Choosing: Deciding to do the action. Choosing results in an intention.
4. Acting: Doing that thing and coordinating other actions and intentions around it.

The second stage, judging or choosing between the alternatives on hand, is a critical processing step in which one determines whether to yield to temptation or resist it. In *The Marshmallow Test* (2014), Walter Mischel summarizes much of the research conducted on why people yield to temptation or delay gratification. Beginning in the 1960s, Mischel investigated the phenomenon of temptation and often collaborated with various colleagues in his quest. In some studies, he followed his subjects over a long period of time in a longitudinal observation and assessment; in others, he worked with subjects of different age groups, cultural or family settings, and types of stimuli and their frequencies.

In their early experiments with nursery-bound children, Mischel and his colleagues offered their subjects two alternatives, a smaller reward now, or a larger reward later, sometimes contingent upon a condition (e.g., when the teacher returns). They could any time choose to indulge (e.g., ring the bell before them and take the smaller reward now), or wait until the teacher returned and get a larger reward. In this study and later in other experiments, the same finding emerged: Preschoolers who delayed longer on the Marshmallow Test exhibited more self-control in frustrating situations; yielded less to temptation; were less distractible when trying to concentrate; were more intelligent, self-reliant, and confident; and trusted their own judgment (Mischel 2014, 23-24). In Mischel's longitudinal studies, the findings prevailed among the same subjects when they were grownups. Collectively, many of Mischel's studies echo a unified message: disposition is a stable force and it affects self-regulation.

³ According to the New Testament, temptation approaches human beings in diverse ways and tries to motivate them to follow the voice of egoism and anxiety and strive for power and profit instead of listening to conscience.

⁴ According to Kennett (2001, p. 57), the craving provides a context in which the less desirable object becomes more attractive without the benefit of any supporting change in beliefs.

Hot System and Cool System

Mischel explains the difference between those who indulge and those who delay gratification in terms of their use of “hot” and “cool” system, respectively. Referring to the work of cognitive psychologist Daniel Berlyne (1980), he argues that the effect the (tempting) stimulus has on us depends on how we represent it mentally. An arousing representation focuses on the motivating, hot qualities of the stimulus (e.g., sweet quality of the marshmallows), triggering the impulsive reaction to eat it. In contrast, a cool representation focuses on the more abstract, cognitive, informational aspects of the stimulus (e.g., the marshmallow is round and white) and tells you what it is like without making it more tempting. It allows you to “think cool” about it rather than just grab it (Mischel, 2014, 24). When the hot system takes over, it is difficult to cool the impulsive reaction to it; in contrast, when the cool system takes over, it is easier to delay gratification, thus exhibiting a high degree of self-control (Nordgren and Chou, 2011). Thus, the power is in the mental representation of the stimulus, not the stimulus as such.

Studies show that each of the hot and cool systems are associated with distinct parts of the brain regions and their neural circuits. For example, McClure et al. (2004) demonstrated that two separate systems are involved in monetary reward options that varied by delay to delivery. Parts of the limbic system associated with the midbrain dopamine system, including the paralimbic cortex, are preferentially activated by decisions involving immediately available rewards, while regions of the lateral prefrontal cortex and posterior parietal cortex are engaged uniformly by intertemporal choice, irrespective of delay. Greater relative fronto-parietal activity was observed when subjects chose longer-term options. McClure et al. (2004, 506) refer to several studies on imaging and interactions between prefrontal cortex and limbic mechanisms in a variety of behavioral contexts. They assert that human behavior is often governed by a competition between lower level, automatic processes and the uniquely human capacity for abstract, domain-general reasoning and future planning. Cohen’s experiments (2005) are also consistent with these findings. Figner et al. (2010) take this one step further; they provide causal evidence of self-control mechanisms in intertemporal choice. They find that disruption of the function of the left lateral prefrontal cortex (LPFC) – the mechanism responsible for self-control – increases the choice of immediate rewards over larger delayed rewards.

References to hot and cool systems as System 1 and System 2, respectively, are common. Stanovich and West (2008) researched how the mind engages itself in making volitional choices. They identified two separate “systems”: System 1, which works on automated tasks, and System 2, which is engaged when attention is required in processing information to arrive at the choice. System 1 is intuitive and lazy, while System 2 is effort-intensive. Most routine tasks (e.g., adding two numbers) are undertaken by System 1; System 2 does the heavy-duty work (e.g., driving on a crowded street in Mumbai)⁵ where attention is required and information processing is complex. In a review of research on System 1 and System 2, Kahneman (2011, 41) asserts that self-control and deliberate thought (cognitive effort) are the forms of mental work of System 2. As a consequence, people who are concurrently challenged by a demanding cognitive task (assigned to System 2) and by a temptation are more likely to

⁵ This analogy is made by Kahneman (2011).

yield to the temptation. Bazerman and Tenbrunsel (2011) are even more specific: System 1 responses are more likely to be immoral.

Moral Temptation

Any revision in light of contrary inclinations (tempting stimuli) simply means that the agent's resolve is gone, that he likely would yield to the temptation on hand, whether non-moral (eating candy instead of carrots) or moral (stealing instead of buying). According to Holton (2009), a series of reasonable revisions to a non-moral resolve (e.g., wavering in a decision to pick a restaurant for dinner) may only prove the actor's capriciousness. In contrast, moral temptations clearly involve agency and, therefore, the trust of the principal; for example, a CEO's breach of commitment to protect the assets of the company compromises the agency relationship, signaling a breakdown in fiduciary responsibility.⁶ Brinkmann (2005, 183) describes moral temptation as an objective action *opportunity* that turns up, which is *subjectively* perceived as attractive and presents a *test* of an individual's (or perhaps group's) *morality*, or more specifically of one's character, one's principles, or one's will. Revisions to non-moral intentions are expected, while moral intentions should remain firm. But human nature is such that acts of indiscretion occur, and when they occur, they point to the person's virtue. To quote Prescott (1847): Where there is no free agency, there can be no morality. Where there is no moral temptation, there can be little claim to virtue.

Judgment Shift and Moral Compromise

Judgment shift occurs when the agent abandons his resolve in favor of immediate rewards. As a result, the evaluation of choices on hand becomes biased in favor of breaking the resolve. In almost all cases of ordinary temptation, giving in to the urge is caused by the judgment shift (Holton, 2009). Karniol and Miller (1983) conducted an experiment on judgment shift with eight-year-old children. The children were shown marshmallows and chewing gum (and these were then left in the children's plain sight) and asked for their preference. Half the children were then told that they could have their first choice, but only after the experimenter returned from some tasks that she had to do. The other half were provided additional instruction: at any point they could ring a bell to summon the experimenter, in which case they would get their second choice. The experimenter returned after 10 minutes and declared that she was not yet in a position to give the rewards, but she forgot to ask a question earlier: On a scale of one to five, what value would you put on the two options? Interestingly, the group with a choice to ring the bell gave a significantly lower value to their preferred choice compared to the group that did not have the chance to ring the bell.⁷ According to Holton (2009, 102), this undermining of the preferred choice (judgment shift) takes place as follows: (1) the tempted children find their attention focused on the immediately available sweet; (2) consequently, to get it right away, they have a strong urge to ring the

⁶ Presumably, the sphere of immediate influence of non-moral indulgence may be limited to the person's private life, while moral compromises may have a broader influence. Corporate meltdowns, for example, cause considerable pain for their stakeholders. In the long run, society may be affected. For example, a smoker may get cancer, which could impose financial and non-financial burdens on society.

⁷ The valuations of those who had no chance to ring the bell are the same as those of the control group that did not have to wait.

bell; and (3) as they become aware that they are likely to succumb to this urge, they change the evaluation of their options to avoid cognitive dissonance.⁸

Obstacles

Literally, the term *obstacle* means “to stand against.” I define obstacles as any system or procedure that may “ruin” the experience of indulgence at any stage of the act. The most recognized obstacles within a company are the internal controls, viewed as antidotes for opportunities. Relevant obstacles confront or weaken perceived self-efficacy (discussed next) and help prevent or expose a fraudulent act. During the tenure of a compromise, the actor has to continually reassess self-efficacy in light of new roadblocks that may surface.

Temptations are not necessarily aligned to opportunities. They may (1) relate to specific existing opportunities or (2) prompt the agent to create new ones to suit the temptation on hand. In this view, opportunities are not a fixed set of fraud outlets, but rather a constantly changing set of stimuli, including those maneuvered by the actor. Only those controls that are relevant to the temptation on hand can be effective obstacles. Given the vast variety of tempting stimuli, a control framework that casts a wide net to catch almost anything imaginable is likely to be inefficient. On the flip side, because a specific temptation might not be present in the generic set of opportunities, obstacles relevant to the temptation may be absent altogether. This may be the reason why those who guard the guardians do not see stock options date manipulation as a fraud risk. The design of internal control systems based on an anticipated universe of opportunities has built-in redundancy, and yet may fail to anticipate a compromise.

Self-efficacy

In a breakdown of resolve suggesting compromise of trust, the potential indulgence is entertained in a well-calculated manner. A prospective actor would not want to yield to a temptation knowing that he could be exposed, causing negative consequences for him and possibly for the organization he leads. Therefore, the actor evaluates whether the indulgence on hand can be materialized without any hindrances, and if its anticipated after-effects can be managed.

A feasibility evaluation in light of one’s capacity involves a careful consideration of anticipated obstacles that may come in the way of indulgence. In financial fraud, the agent most likely identifies and evaluates specific obstacles that could hinder the indulgence (and post-indulgence) states, and considers possible ways – including collusion and overrides – in which to negate their effect. A series of actions to commit, conceal, and convert will require an understanding of people and procedures that potentially present roadblocks and how these might be coped with.

A self-efficacy test appears to have a much wider scope than mere consideration of internal controls relevant to the intentional action, and would include the identification and assessment of

⁸ Thus, cognitive dissonance and resulting rationalizations are primarily side effects, not a primary driver of fraud.

current and future hurdles emerging from any source. The means to exercise self-efficacy would include strategies such as the emotional manipulation⁹ or social engineering.

Finally, several constructs overlap perceived self-efficacy. Cressey's (1953) "non-shareable problem" suggests that the actor would plan on hiding the act and its aftermath. And Setiya's (2007, 99-106) concept of instrumentalism and its derivative, means-ends efficiency, and Perceived Behavioral Control in the TPB are similar in nature. The idea of embedding *capability* as an additional condition in the fraud triangle (Wolfe and Hermanson, 2004) signifies the need for inclusion of perceived self-efficacy in the DFM.

To summarize, the motivation for action in an act of financial fraud is triggered by a moral compromise in the face of tempting stimuli, causing a breach of the actor's moral resolve. A judgment shift occurs as the actor weighs immediate rewards as more attractive than long-term rewards. Concurrently, the actor engages in a self-efficacy test; if the test fails, the actor would likely consider resisting the temptation. A non-actor – one who does not compromise his moral resolve – has no need to engage in a self-efficacy exercise.

Motivation for Desire

Virtue Ethics and Disposition

"Since virtues are traits of character, [the virtue theory of practical reason] is more readily framed in terms of our *dispositions* to engage in a practical thought" (Setiya, 2007, p.8). Philosophers and theologians have studied human disposition for millennia (see, for example, Hume, 2000¹⁰).¹¹ Virtues and their relationship with the constituent elements of a person's nature – called disposition – are addressed across religions. The *Bhagvad Gita* heavily integrates the role of human disposition in the quality of one's life; it discusses in various contexts the three *gunas* (enlightened, passionate, and indolent), also called inner nature or essential character (*svabhava*), and how their presence in different degrees makes the person dispositionally different from others (see, for example, Tilak 2004). One's disposition is mirrored in *shraddha* (faith) that drives a person to pursuits of his choice. In Aurobindo's words (1996, 492): "The soul's faith, not mere intellectual belief, but its concordant will to know, to see, to believe and to do and be according to its vision and knowledge is that which determines . . . the measure of our possibilities of becoming."

Oxford Dictionaries define disposition as "a person's inherent qualities of mind and character." Internal to the agent, a disposition is independent of and little influenced by the stimuli faced by the agent. Relatively lasting, it is a stable habit of mind and in this sense one could call it "stubborn," for it accounts for the sameness of behavior across varying environmental contexts. Disposition results in (consistent and reliable) "summaries of frequencies" (Buss and Craik, 1983); it represents "habits of

⁹ See Chapter 8 in Ramamoorti et al., 2013, for a detailed discussion on emotional manipulation in fraud.

¹⁰ Hume first published *The Treatise of Human Nature* during the 1730s.

¹¹ For a discussion of disposition and its relationship with morality, see Raval (2013).

mind, not mindless habits” (Katz and Rath, 1985). Upon thorough examination of the literature on the meaning and usage of *disposition* and related terms such as habit, trait, and skill, Katz (1993, 16) defined disposition as “a pattern of behavior exhibited frequently and in the absence of coercion, and constituting a habit of mind under some conscious and voluntary control, and that is intentional and oriented to broad goals.”

The origin of motivation for desire can be found in one’s disposition. According to the metaphysical underpinnings of the *Bhagavad Gita*, a person’s disposition translates into motivation for desires of different kinds depending on the predominance of one of the three *gunas* (character traits): *sattvik*, *rajsik*, and *tamsik*. A person’s character traits would suggest that he is (1) *sattvik*, coscient, or enlightened (passionate and possesses existential knowledge of right from wrong – (hereafter, P(E)); (2) *rajsik*, subcoscient, or passionate and ignorant (active, but does not possess existential knowledge of right from wrong – (hereafter, P(I)); or (3) *tamsik*, nescient, or indolent, who possesses neither passion nor knowledge. Both coscient and subcoscient dispositions are full of energy and drive. One thing they have in common is the desire for action; however, enlightened individuals, P(E)s, express high levels of moral grounding, being aware of what is right and wrong, and therefore are likely to act according to their moral compass. In contrast, the passionate being, P(I), is ignorant of right action; thus, he is vulnerable to desires that are morally unsound. In contrast, nescient disposition indicates inertia of both knowledge and action. A person of this disposition does not know right from wrong and suffers from inaction. Although all three *gunas* are present in every being, one’s disposition is influenced by the person’s most dominant *guna*. In this paper, I focus on the first two, P(E) and P(I),¹² since both include the presence of passion, which is a required characteristic of top executives; indolent people with little or no passion are rarely found to be viable business leaders, for they lack intensity to pursue any kind of action.¹³

Instruments to measure disposition along these lines have been developed and validated. Following the early efforts of Parameswaran (1969), various researchers have attempted to design and validate the psychometric inventory to measure disposition (Das, 1987; Pathak et al., 1992; Marutham et al., 1998; Stempel et al., 2006; Matthew, 2010). Dasa (1999) refined the Vedic Personality Inventory of disposition and tested the validity of the constructs using several convergent and construct validity measures.

Moral Stage Development and Disposition

Whereas a person’s disposition colors all aspects of life – physical, mental, moral, and spiritual – the DFM has to do with the moral dimension of human disposition. Moral action is volitional and is a result of character interacting with circumstances; it is the “expression of a person’s character as it reacts upon

¹² The classification, R(s) and R(t), in Raval (2013) is simplified here as P(E) and P(I), respectively, for ease of communication and recall.

¹³ Interestingly, other religions also point to the role of disposition. For example, Rumi (Baldock 2006, 164-167) suggests this classification: Angels, Descendants of Adam, and Beasts, roughly comparable to the enlightened, passionate, and indolent disposition, respectively.

and responds to given circumstances” (Green, 1906, 120). According to Green, there are two distinct objects of moral approbation or disapprobation: intentional action and motive or character of an agent. Motive indicates a good or bad “habitual *disposition* – a bent of character from which useful or hurtful actions are likely to arise” (1906, 176).

One’s disposition (*svabhava*) and duty (*svadharma*) are interrelated, for any talk of virtue without reference to moral obligation is meaningless. What we see as our duty is in large part a matter of inner conscience, inner qualities that define our disposition, based on the degree of presence of the *gunas*. The moral fabric of a person is invariably tied to his disposition. Consequently, the view of what is expected from oneself is integrally tied to one’s disposition. Taking six stages of moral development (Kohlberg, 1984), I surmise that the lowest three (social norms, self-interest orientation, and obedience and punishment orientation) align with P(I)s and the highest three (law and order morality, social contract orientation, and universal ethical principles), with P(E)s.¹⁴ This binary classification is comparable to Green’s (1906, 377) descriptions of those with *unwholesome preoccupation with self* (self-regarding) and those with *eagerness in disinterested service* (other-regarding), respectively. Table 1 summarizes the characteristics of the three *gunas* and related expressed behaviors.

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Disposition and Moral Compromise

No one is exempt from facing temptations. The question is: who can resist moral temptations? The answer may lie in the nature of human disposition. Ryle (1949, 124) contends that our proneness, or bent, to act in certain ways (e.g., a CEO’s lifestyle) is stable and predictable such that we could regard it as an “inference ticket.” However, it is important to distinguish between proneness and the actual act of indulgence. The disposition (e.g., brittleness of glass) may materialize into an actual occurrence (shattered glass) only under certain conditions; in Green’s (1906, 174) words, “the will in possibility” may convert to “the will in actuality,” but the actualization is not automatic. This is why most passionate leaders produce remarkable results without compromising their resolve. Nevertheless, instances of moral compromise are common and the significance of disposition as a fraud-risk factor cannot be discounted. When temptations challenge the agent to give up his or her resolve, the agent’s dispositional characteristics may tip the scale in favor of or against the moral breakdown. For example, studies have shown that narcissistic leadership behavior is associated with white collar crime (Blickle et al., 2006).

Intentional Action

¹⁴ For a detailed discussion, see Raval (2013), 5-6.

A moral compromise is a volitional action that signals a breakdown in the actor's resolve. Bratman (1987) argues that when an agent forms an intention, he resolves to perform the action; intentions are not crafted with an *ex ante* motivation to give up the resolve. The resolution, if not reconsidered, leads to action that aligns with the resolution, and the stimuli tempting the agent to yield to contrary inclinations have no effect. Once formed, intentions can be expected to have a tendency to persist, providing stability to one's actions. This state of stability is relative, not absolute, for at times there may be perfectly valid grounds for the agent to revise his intentions without breaking his resolve. The state of stability and the consequent persistence of the agent's intention provides for efficiency in information processing, for well-formed intentions will not require reconsideration and, therefore, possible revisions in the future. Thus, having intentions is helpful in terms of self-regulation and stability and, therefore, predictability of outcomes.

Rationalizations

The judgment shift in a moral temptation is an agonizing experience; the agent struggles to keep his resolve, but when the judgment shift is about to take place, he becomes aware of giving into the urge. At this stage, the agent changes the evaluation of his options in support of the judgment shift to avoid cognitive dissonance. The resulting rationalizations are side effects, comforting the agent in breaking the resolve rather than influencing the judgment as such.

Self-control

A dominant reason for the judgment shift is the weakness of will, a failure to hold on to one's moral intentions and, thus, a failure of self-control.¹⁵ The weakness of will, however temporary, creates a window where the person is likely to falter. What is good for the person in the long term becomes minor in deciding whether to indulge (Mischel, 2014). In Kennett's (2001, 57) words: "The craving frames the options in such a way that in its grip the individual focuses on the loss involved in giving up the immediate state rather than the gains in the terminal state. . . . [T]here is evidence that losses – in the immediate state – are weighted more heavily than the gains in the terminal state."¹⁶ Temptation feels like a bargain (Luke 4:1-13). What happens ultimately may not occur to the actor as either significant or relevant; what matters most at the time is the experience offered by the temptation (Raval, 2013, 11). Citing a number of studies, Trope and Fishbach (2000, 504) confirm: (immediate) rewards often prevent people from sticking to their long-term preferences.

Self-control can be a strong counter force to tempting stimuli. People express self-control through various strategies, such as zero tolerance for violations. In experiments that Mischel and his colleagues conducted, the subjects adopted distraction strategies that took their mind away from the stimuli; for example, by thinking that marshmallows are actually in the picture and you can't eat a picture (2014, 32-33). Such distraction strategies tend to cool down the hot system that wants to indulge and warm up the cool system that would help resist the temptation.

¹⁵ I consider self-control and self-regulation as synonyms.

¹⁶ Kennett (2001) argues that the yielding to an urge results when "motivating reasons" outpace "normative reasons."

A failure of self-control may be attributable to a shortfall in standard setting or awareness of what the standards are, in self-monitoring of the divergence of actual states from the standard, or in taking corrective action (i.e., self-stopping from indulgence). In the absence of standards, there is no self-regulation possible. If there are multiple standards and they are conflicting (e.g., company's code of ethics does not resonate with the executive's inner beliefs), confusion takes over and the exercise in self-regulation may be futile. A discrepant, conflicting internal set of standards leads to muddled, indecisive, unsure, and rebellious responses; confusion about identity; and emotional stress (Van Hook and Higgins, 1988). In a study by Maphet and Miller (1982), children effectively obeyed instructions that prohibited a certain behavior even weeks after the instructions were given. However, if the two experimental authority figures disagreed about the rules, the children were not likely to conform to their instructions.

Where unambiguous standards exist, the agent may fail to self-regulate because he forgets about them, thus lowering the threshold of attention paid to the standards. Renegade attention poses a significant risk because managing attention is likely the most generally effective technique of self-regulation (Kirschenbaum, 1987; Mischel, 2014). Since it is more effective to avoid temptation than to resist it, attention to the standards and constant awareness of avoidance strategies (that will prompt the cool system and overpower the hot system) are important in the prevention of self-regulation failures.

Myrseth and Fishbach (2009) conducted a series of experiments on temptations and related rewards. Their studies suggest a two-stage model of how a tempted person might overcome the temptation. A first stage is that the person is aware that the dilemma exists. I surmise the awareness is rooted in one's disposition. People with high moral stage development are more likely to be aware of conflict and therefore, can potentially stand firm on their moral resolve.

To summarize, human disposition affects one's ability to maintain self-control. The failure of self-control causes the perception that the immediate reward is more attractive compared to the long-term consequences of delaying gratification. This causes the judgment shift in an intertemporal choice: favoring the immediate experience over the possible long-term consequences.

Psychological Inertia

When self-regulation occurs, the cool system prevails over the hot system; the immediate urge is stopped in favor of the resolution. Self-stopping is perhaps the easiest way to self-regulate. To a degree, successful self-regulation depends on the timing of the response. The longer someone is doing something, the more difficult it may be for that person to stop. A person already in the midst of an indulgence will have great difficulty in withdrawing from it – what is in motion cannot be easily stopped. Beaumeister et al. (1994) refer to this phenomenon as *psychological inertia*. The psychological inertia progressively sets in as the agent moves from contemplation to intimacy, to intensification, and to

obsession; it becomes harder along the way to stop running into indulgence. The sooner the control action is taken, the greater the likelihood self-regulation will be successful.¹⁷

The phenomenon of *psychological inertia* is not new; the widely known Zeigarnik effect suggests that a response sequence in progress is difficult to interrupt. And in most religious scriptures, exercise of moderation is advised to inhibit one's advance into progressively deeper stages of failure in regulation (see, for example, *The Bhagvad Gita*, 4:26).¹⁸

Ego Depletion

An effort of will, or self-control, is tiring. Baumeister et al. (1998) have proved that voluntary effort in any form – cognitive, emotional, or physical – draws on the mental energy. They describe the phenomenon, called ego depletion, as a demanding effort of self-control leaving one with less to effectively cope with the next challenge.¹⁹ To quote Kahneman (2011, 42-43), “[A]ctivities that impose high demands on System 2 require self-control, and the exertion of self-control is depleting and unpleasant. . . . After exerting self-control in one task, you do not feel like making an effort in another. . . . Intuitive errors are much more frequent among ego-depleted people.” Errors of judgment resulting in a compromise are more likely when the manager relies on System 1 (hot system) where System 2 (cool system) should be governing the decision. But if System 2 is exhausted, System 1, once delegated to do System 2's job, will lead to potentially unacceptable compromises.

A general phenomenon operating in various contexts, ego depletion also applies to temptation-related behaviors, for it affects self-control. The CEO of an automaker in the midst of a recall of a few million cars at work or cathartic divorce proceedings in private life would likely have less left to stay focused on the higher processes of System 2, and this could result in a compromise on moral grounds. Scott London, a former KPMG senior partner who passed tips to a golfing buddy about KPMG clients notes that even though he knew it was wrong, he thinks “some element of burnout” may have impaired his judgment, which in turn resulted in the compromise.²⁰ Ego depletion may contribute to, but does not justify, a breakdown in moral resolve.

The state of inadequate strength due to depletion of mental and/or physical energy is usually temporary and varies over time, depending on the challenges – or relatively quiet periods – the person faces over time. Fighting the strains of a deep recession or serious regulatory actions would suggest low strength (high depletion), while a booming economy and favorable trends of the business could result in little depletion in the executive. This could explain why in rough economic times in a company's life, executive financial fraud may be more noticeable than in times of prosperity. Ego depletion may not

¹⁷ The founder of the Jesuits, St. Ignatius of Loyola, writes in his widely known *Spiritual Exercises* (1548): I resist [an evil thought] promptly and it is overcome; the second I resist it, it recurs again and again and I keep on resisting until the thought goes away defeated.

¹⁸ Buddha described the discipline of moderation as *madhyamarg*, which translates as *the middle road*.

¹⁹ The use of the term *ego* in *ego depletion* is not clear. *Ego* in Sanskrit equates to *Aham*, or pride, which is a dispositional property of *Swabhava*, or one's character.

²⁰ Prison-Bound KPMG Ex-Partner Remorseful for Insider Tips, M. Rapoport, *The Wall Street Journal*, June 26, 2014, C3.

cause the judgment shift, but it provides a possible pre-condition for temptation to override the person's resolve. This explains why ordinary, decent, capable people sometimes fall prey to temptations.²¹

Relationship between Disposition and Self-control

If self-control is a powerful antidote for indulgence to moral temptation, why would people with high degree of self-control falter? Mischel (2014, 189) suggests that people may exercise self-control selectively; hence, mere presence of self-control ability does not guarantee proper behavior. Moreover, there are two forces at work that limit, albeit temporarily, the influence of self-control: psychological inertia and ego depletion. The former weakens the grip of self-control over the resolve of the actor and the latter temporarily reduces the reservoir of stamina during the time that the temptation is lurking, thus making the agent more vulnerable. Finally, inasmuch as self-control can be deployed for good motives, it can also be channeled to execute bad motives.

Mischel (2014, 168) notes that self-control can help prevent dispositional vulnerabilities from playing out destructively. It appears that self-regarding (P(I)) executives vulnerable to moral compromises may find that high degree of self-control saves them from indulgence. However, ultimately, it is the disposition, not self-control, that marks the breakdown of moral resolve. The reason is that disposition incorporates moral component and any moral compromise is directly associated with vulnerabilities inherent in the disposition.

There are no known studies exploring specifically the relationship between human disposition and self-regulation, or judgment shift. Disposition is "stubborn," for it accounts for the sameness of behavior across varying environmental contexts. Dispositional traits are more stable and consistent across time; they cannot be turned on or off; they are not subject to depletion, nor are they deployed or withheld at the option of the person. Therefore, disposition can be a reliable predictor of moral compromises than self-control. While a person of either disposition - (P(E) or P(I)) - may falter at any given moment, it seems more likely that other-regarding persons (P(E)s) would effectively exercise self-restraint, while self-regarding ones (P(I)s) remain vulnerable to judgment shifts. Life that revolves around the self could result in a disregard for stakeholders whose interests the business leader is serving.

In a study of adolescents by Funder and Block (1989), each subject chose between immediate monetary payments and larger, delayed payment on five occasions; the number of delayed payments chosen was strongly correlated with the subjects' personality ratings. Subjects who exhibited the most delay of gratification tended to be independently described as ethically consistent and overly controlled (that is, a high level of self-regulation). Presumably, the ability to delay gratification effectively for the

²¹ According to the 2014 ACFE Report to the Nation (p. 58), only 5% of the fraudsters in their study had been convicted of a fraud-related offense prior to committing the crimes in their study.

sake of larger goals is positively associated with personality ratings that reflect the subject's disposition. The scenarios used by Funder and Block closely parallel long-term executive rewards as a multiple of their short-term rewards, although it is difficult to fully capture the realities of today's executive compensation in a laboratory experiment.

Narcissistic Behavior

P(I) disposition is passion, breeding selfish desire and attachment, which bind the person to attachment (*The Gita*, 14:7). *The Gita* further declares that selfish desire is to be found at all levels – in the senses, mind, and intellect, misleading them and burying the understanding in delusion (4:40). In fact, Chapter 4 in *The Gita* is devoted to selfless service and its significance in defining life's mission – a path that P(E)s are better suited to take. Throughout *The Gita*, P(I)s have been described as ostentatious, outward, and self-centric. The ostentatious nature of P(I) is similar to the key characteristics of narcissistic personality. DuBrin (2012, 11-15) discusses behavioral symptoms of people with a high standing on the trait of narcissism: self-admiration, statement of superiority, incessant talking, interrupting others, temper tantrums, expectation of special attention, dependence on others for reinforcement of the self-image, perfectionism and compulsivity, and limited empathy. People with narcissistic personality are not necessarily selfish; however their focus is still on the self. In the narcissism checklist of 25 items, DuBrin (2012, 10) includes the following: believes that he or she can accomplish anything with proper effort. Thus, the sense of entitlement to outcomes – a tendency that could lead people to break their resolve – is ingrained in the narcissistic personality.

The notion of how individuals perceive, comprehend, and interpret the behavior of others toward themselves is known as self-construal. Research on self-construal suggests that the content and structure of the inner self may differ considerably between persons, depending on their view of the self and the relationship between the self and others (Markus and Kitayama, 1991). Since human disposition is in some ways a representation of the inner self, it would seem that self-construal is related to the binary classification of P(I) – focused on oneself - and P(E), focused on the collective. Extending the concept of self-construal to ethical leadership, Gils et al. (2010) suggest the following relationship: the focus on the individual (self) is consistent with the pre-conventional level in Kohlberg's moral stage development, and the focus on the collective with the post-conventional level. In the DFM, the same parallels exist: P(I)s are self-regarding while P(E)s are other-regarding. P(E)s are potentially better suited for the fiduciary responsibility of serving the stakeholders of a company.

Studies show that narcissism is related to white-collar crime (Blickle et al. 2006). Addressing narcissistic tendencies in an audit environment, Johnson et al. (2013) studied managerial narcissism as an indicator of fraud attitude. In a client-audit-manager context, they found that narcissism was significantly associated with a measure of engagement fraud risk, suggesting client narcissism as a diagnostic indicator of client integrity and ethics.

Specifically addressing the CEO behavior, Chatterjee and Hambrick (2007) conducted an insightful study of 111 CEOs. They found support for all four hypotheses: the greater the narcissistic tendencies of a CEO, (1) the greater the dynamism of the company, (2) the greater the number and size

of acquisitions made by the company, (3) the more extreme the company's performance, and (4) the greater the fluctuation in the company's performance. More recently, using survey data collected from 173 CEOs, Wales et al. (2013) investigated firm-level entrepreneurial orientation as a strategic mechanism that narcissistic CEOs may leverage to influence changes in organizational performance. They found that narcissistic CEOs have a propensity to increase entrepreneurial orientation (EO) in the organizations they lead, and EO partially mediates the relationship between CEO narcissism and firm performance variance. Both studies relate to the DFM in the following ways: the pursuit of aggressive entrepreneurship (including firm dynamism and number of acquisitions) combined with volatility in firm performance can cause frequent ego depletion in the C-suite, for the attention necessary to lead the firm will constantly present unusual challenges. The ego depletion combined with focus on outcomes – not just efforts – could lead to a breakdown in the top executive's moral resolve.

In sum, P(I) disposition seems to overlap with narcissism. Both narcissistic and P(I) executives are ostentatious, focused on self-glory and final outcomes, and vulnerable to breakdowns in their moral resolve. The DFM places the narcissistic leadership orientation in a larger context, especially in relation to vulnerability to moral temptations expressed in the leader's disposition, and how this vulnerability could actualize in the form of financial fraud.

To summarize key elements of the DFM, the agent's compromise of a moral resolve results from giving in to the immediate gains at the sacrifice of the long-term benefits. The perception of what is preferred at that moment changes in favor of here-and-now, although there is no change in either the immediate gains or the long-term rewards. This occurs with judgment shift, followed by indulgence, if the self-efficacy test is met. Rationalizations as outcomes of the breakdown in resolve surface when one yields to temptation. The inclination to entertain temptations is moderated by the agent's disposition: self-regarding agents are potentially more vulnerable to tempting stimuli. Even for agents with strong self-control, an error in judgment could occur if ego depletion has taken its toll on the agent. Finally, temptation draws the agent into its consideration and the intensity of this experience increases over time, leading to a greater chance that the agent will give in. Figure 2 presents the DFM.

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Insert Figure 2 about here.

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Corporate Governance Implications

Governance Strategies

The two primary forces involved in the DFM – the motivation for desire and the motivation for action – roughly parallel the two different approaches to governance: the integrity approach and the compliance approach, respectively. A rule-based, legalistic, and rather narrow compliance strategy used solely to

achieve effective governance may fall short in delivering the desired results (Paine, 1994). Paine notes that an integrity-based strategy strives to define companies' "patterns of thought and conduct (p. 107)." Such strategies, when integrated into the day-to-day operations of an organization "can help prevent damaging ethical lapses" (*ibid*). It appears that each strategy is uniquely contributing to effective governance, and a balanced approach that deploys both is desired (Arjoon, 2006). As an artifact of risk-management in corporate governance, the DFM attempts to incorporate the integrity approach in a holistic manner, while placing the components of compliance strategy (e.g., obstacles) in new light.

In this section, I discuss corporate governance implications emerging from the insights of the DFM. This discussion is only illustrative, suggesting the value of DFM. No attempt has been made to exhaustively identify all implications; on the flip side, this paper does not examine governance measures that potentially could be ineffective in light of the DFM.

Executive Disposition

In an empirical test, if both the actor and the circumstances are not examined together, the study would likely be biased. If the motivation for desire is an equal force, but is left out of investigation, its impact will be masked. In turn, in discussions of studies, the impact of the motivation for action may be exaggerated or even inconclusive. Both the organism and the matrix surrounding the moral compromise are critical in the examination. Several elaborate and soundly designed studies that are underweighted in their examination of the actor's attributes (such as dispositional properties) suffer from this limitation. For example, studies on related-party transactions and financial fraud suggest that instances of fraud occur when related-party transactions are present and also when they are not present (Bell and Carcello, 2000; Gordon et al., 2007). Is it likely that leaders with the P(E) disposition could navigate themselves safely even in the presence of a maze of related-party relationships? Could it be that a CEO of the P(I) disposition did not see that as relevant to temptations on hand? Similarly, studies on the separation of the chairman's role from that of the CEO report that sometimes it helps to have the two roles separated, but not always. Would the separation show improvement if the current chair exhibits narcissistic leadership traits? Is it likely that the current chair's disposition is P(E) and therefore, the separation would not yield visible improvement in fraud risk mitigation? Thus, these findings are limited in their practical significance because they cannot convincingly support policy development for effective governance. Precisely because of this, corporate boards of U.S. public companies do not necessarily prohibit related-party transactions, nor do they blindly endorse separation of the board chair from the company's CEO role.

Sensing C-suite Dispositions

Clearly, the notions of disposition, as with narcissism, are soft. However, these are the virtue traits that are stable and, once understood, can be relied upon to predict the agent's behavior. Campbell (2015), for example, shows that while a government's risk management effectiveness is driven by two latent factors, leadership virtue and governance, the former is found to be more strongly correlated with risk management. Both disposition and narcissism can be assessed through administration of appropriate

instruments. In such assessments, the difficulty is in getting genuine responses, countering impression management by the executive. For this reason, researchers often explore indirect ways to measure surrogates (e.g., see Chatterjee and Hambrick, 2007, for unobtrusive indicators to assess CEO narcissism). Overall, a great deal of progress has been made in innovative ways to validly assess virtue.

The most effective cure for financial fraud is the self-regulation of the executive. If dispositions cause proneness to indulgence, it is best to focus on understanding the nature of disposition of the leaders. It is worth noting that most successful business leaders are of P(I) disposition, which compares with narcissistic leadership traits. Not having them at the helm is not an option, for they are results-oriented, passionate leaders. Since corporate boards can't afford to not have them run their businesses, the only remaining remedy is to help executives recognize the strengths and vulnerabilities of their disposition, and improve upon their self-regulation capacity.

A deeper knowledge of executive dispositions would permit a systematic support to leadership in identifying the blind spots and addressing them before the temptation wins the race. The best preventive control over corporate meltdowns is obviously the empowerment of the leaders to do the right thing. Any implementation of this premise is fraught with its own risks; however, the long-term payoffs can be huge. Imagine stopping the meltdowns of a few future Enrons!

Collective C-suite Dispositions

Corporate fraud often requires more capacity than a top executive alone possesses. Therefore, I suggest an inclusive view of self-efficacy in which collusion at the top level might be necessary to commit the fraud and hide it from others. Specifically, the executive may enroll members of the top management team to collaborate in the act of fraud. Bernard Madoff's decade-long Ponzi scheme warranted a vast array of technical, accounting, and marketing skills; to harness these, he recruited and controlled the continued loyalty of five of his staff members, in addition to the CFO.²² In the Satyam Computers case, the CEO resorted to a comprehensive manipulation of financial accounting information. Over time, even employee count, payroll, customer accounts, and cost of sales were manipulated to lend apparent validity to the financial misrepresentation. This would require an in-depth understanding of the financial accounting system; to get these results, knowledge of and access to accounting systems was necessary and override of top-level financial accounting controls was required. For this, he induced his CFO to join him in the act.²³ At Enron, Jeffrey Skilling and Andrew Fastow united to produce an unprecedented financial fraud.

When there are more people (typically, top executives) involved in an act of fraud, on the surface it is unclear as to whose disposition may have led the drive to indulge. In a CEO-CFO pair, for

²² In a verdict issued in the Federal Court in Manhattan, the jury found five former employees guilty of collaborating with Bernard Madoff in his Ponzi scheme: two computer programmers (Jerome O'Hara and George Perez), two portfolio managers (Annette Bongiorno and JoAnn Crupi), and operations director Daniel Bonventre. (Jury Finds Staff Aided Madoff Con, *The Wall Street Journal*, Tuesday, March 25, 2014, A1-2).

²³ This trend seems pervasive in financial reporting fraud. During the period 1998-2007, the SEC named the CEO and/or CFO in 89% of fraud cases for some level of involvement in financial fraud (Beasley et al., 2010).

example, it could be either the CFO or the CEO, although there is some evidence that CFOs are normally instrumental rather than primary actors in a financial fraud (Feng et al., 2011). When two or more top executives join forces in a compromise, the crisis could only get worse if more than one leader is narcissistic.

Ramamoorti (2008) and Ramamoorti et al. (2013) suggest the bad apple, bad bushel, and bad crop (ABCs) theory of fraud. They have proposed that an individual may be responsible as the sole actor, or a group of top executives may be involved, or the entire organization could be wrapped up in a toxic act. Nevertheless, it is the leadership that should be responsible for setting the tone that induces moral compromises, while others may be predators in the process. Consequently, the DFM's focus is almost exclusively on one "apple," and certainly no more than a few in the basket that matter the most!

Since CEO-CFO collusion is the most prevalent (see Beasley et al., 2010) in financial fraud, one way to weaken this possibility is for the board, and especially the audit committee, to get to know the CFO's disposition much more personally and to work with him or her to understand the risks, if any, of top-level collusive fraud.

Succession Planning

Effective corporate boards normally invest considerable time and effort in succession planning. The process involved in this crucial agenda has matured, yielding insightful information about likely successors in the event of an opening in the executive hierarchy. For a candidate with a long enough tenure with the company, those in charge of governance would have had opportunities to observe the executive's disposition; insights from such observations could provide significant qualitative input to succession planning, especially for the C-suite openings. Thus, it is likely that if a qualified internal candidate is chosen for a top executive role, there would be some degree of comfort in the character traits of the promoted executive. Such a process facilitates a deeper understanding of fraud risks in light of C-suite disposition, individually and collectively. While this is not a panacea, the practice of identifying and evaluating dispositional traits of influential roles within a company can work as a long-term antidote for fraud risks. Given the qualitative nature of this consideration, the board has to have the courage to experiment with this messy idea, which may pose legal and personnel policy challenges. It seems, however, the long-term benefits could outweigh the challenges, with improved comprehension of the leaders' virtues.

Judgment Shift in Financial Fraud

Since judgment shift plays a key role in the temptation-induced indulgence, it would be of interest to investigate how the judgment shift occurs in an act of financial fraud and how an executive could better resist the temptation. For example, for a judgment shift to occur, the tempted person has to value the long-term gains (e.g., value of restricted stock units awarded over time) less than the immediate rewards (e.g., loss of performance bonus due to lower net income).

The judgment shift is more like a contest between hot system that pulls the person toward short term gains, drawing on the emotions, and the cool system that favors long-term rewards, advocating rational thinking. “Because the emotional parts of the brain reliably undervalue the future we all end up spending too much money today and delaying saving until tomorrow (and tomorrow and tomorrow)” (Lehrer 2009, 91). Using asymmetric paternalism (a way to induce preference for long-term payoffs), Benartzi and Thaler (2004) designed a plan, Save More Tomorrow, that sidesteps the emotional side (hot system) by simply presenting near-term sacrifices (less cash due to retirement contributions) as not in the immediate future, but rather beginning in few months. Trial studies show that after three years, the average plan contribution increased from 3.5% to 13.6%.

It is also likely that in making choices, people show cognitive bias depending on how the immediate versus long-term rewards are presented to them. This is called the framing effect (Tversky and Kahneman 1981) which prompts the subject’s tendency to be risk-averse in the Gain frame (where the gain is highlighted) and risk-seeking in the Loss frame (where the loss is highlighted). In a study of the framing effect, De Martino et al. (2006) found that the framing effect was specifically associated with the amygdala activity, suggesting a key role for an emotional system (hot system) in mediating decision biases. They concluded that activity in the prefrontal cortex area (cool system) predicted a reduced susceptibility to the framing effect. Put differently, if the cool system dominates, chances are that a moral compromise will not occur despite the presence of emotions. To quote De Martino, “people who are more rational don’t perceive emotion less, they just regulate it better (Miller 2006).” It is thus likely that executives that run into moral compromise may exhibit emotions vividly, while those who resist moral temptations may be reserved in showing their emotions.

Many questions arise in this relatively unexplored area. What kind of rewards does an executive compare? Are these rewards exclusively personal in nature? Do the rewards include qualitative rewards? How does the executive take into consideration the degree of uncertainty of non-cash compensation? What compensation structures would deter judgment shift? At what threshold of the difference between immediate and long-term rewards might the executive be able to resist the temptation?

A key governance implication of judgment shift belongs to the board’s compensation committee, where the executive’s immediate and long-term compensation are determined. There is potential here for the governance process to take the executive compensation issues one step further, and probably make the compensation structure work against the judgment shift.

Characteristics of Obstacles

Obstacles in the DFM overlap with the internal controls as antidotes for opportunities. However, effective corporate governance requires the broadening of the scope of antidotes beyond mere internal controls. Typically, an internal control system is designed using a threat matrix and related assessment of vulnerabilities, driven by risk assessment and risk management strategies. However, mitigating vulnerabilities through an elaborate design of internal controls may not neutralize all vulnerabilities to moral temptations.

Obstacles are part of the process (e.g., whistleblower systems) rather than a specific control operating on a specific risk. Using the internal control system, obstacles can be crafted by engaging higher-order or opportunity-neutral control characteristics, such as the tone-at-the-top or the segregation of duties concept. Similarly, across the organization and beyond, people can be empowered to expose an act through an effective whistleblower system.

Powerful executives exert their influence in constructing the internal environment. Because it is a reflection of their disposition, it is largely entrenched in the organization; others responsible for governance, despite all the regulatory requirements, may not be able to change essential nature of the tone from the top. Executive disposition and internal environment may be inseparable in virtue, at least to the extent that the environment is controlled by the executive. Thus, poor tone at the top forecasts P(I) disposition of the leadership. A deeper understanding of the *de facto* tone-at-the-top could work as a preventive fraud-risk factor. Although some progress has been made in this direction (see, for example, Apostolou et al., 2001), the challenge rests in incorporating the human side in the assessment of tone.

An overarching implication of the obstacles to those in charge of governance is this: it is necessary to broaden the view from internal controls, a giant fort built in anticipation of all kinds of threats, to the view of obstacles as opportunity-neutral systems and processes. Controls mostly detect or correct situations; they do not control the parade of temptations. Therefore, the talk of plugging the opportunities at large is basically ineffective; the opportunities do not always equate with temptations, and therefore antidotes for the former (controls) do not necessary become a complete set of antidotes for the latter (obstacles).

In constructing a holistic model, it seemed only proper to include all three: temptations, obstacles, and perceived self-efficacy. The inclusion of even the closest equivalent of “opportunities” alone would not help explain why humans indulge; acting only as passive origins of the act, they seem neutral to the link between the actor and the circumstances. In contrast, “temptations” offer a richer portfolio founded in Skinner’s (1938) behavioral construct of stimuli. Adding temptations while not embedding obstacles would limit the explanatory power of the model; similarly, not incorporating self-efficacy would create a void in explaining how fraudsters cope with obstacles while playing with the temptations. Respectively, temptations, obstacles, and self-efficacy are representations of the origin of the action, counter mechanisms that could effectively stop that, and the actor’s counter mechanisms that could effectively neutralize obstacles. Obstacles are built-in parts of the system, while self-efficacy is uniquely crafted by the actor for each act and thus is an isolated component of the model. All three have a role, and must therefore be present along with their contextual relationships.

Extensions of the Model’s Application

Repeated Compromises – Addiction-like Temptations

Reporting on repeated compromises over time, Beasley et al. (2010, 17) found that fraud periods extended on average for 31.4 months, and many of the frauds began with misstatements of interim financial statements that were continued in annual financial statement filings. Repeated offenses are more like the behavior of addicts. Addiction-like breakdown in moral resolve suggests yielding to the temptation repeatedly over time. In ordinary temptation, the agent may never again repeat the indulgence. And yet, it is possible that the initial indulgence converts into addiction-like behavior. Commonly, “self-regulation failure may gradually snowball; the crucial thing is for the failure to get started, and regaining and reasserting self-control will become progressively more difficult” (Baumeister et al., 1994) as *psychological inertia* sets in. Psychological inertia was vividly present in the Satyam Computers fraud. In a letter to the board, the CEO noted the following:

“The gap in the balance sheet has arisen purely on account of inflated profits over a period of last several years. . . . What started as a marginal gap between actual operating profit and the one reflected in the books of accounts continued to grow over the years. . . . Every attempt made to eliminate the gap failed. . . . It was like riding a tiger, not knowing how to get off without being eaten.”²⁴

In moral breakdowns, addiction-like cases should be differentiated from ordinary temptations. In the case of ordinary temptation, a comparison of immediate and long-term rewards may neutralize the temptation. In contrast, subsequent to the initial incursion, addicts no longer compare the immediate gains with long-term benefits (Holton, 2009). Thus, the addictive behavior can persist even when the person is convinced of the disparity in outcomes. While self-regulation could help someone resist ordinary temptation, it bears little significance in the case of a repeated offense, for the indiscretion has already actualized once, defeating self-control. Thus, a judgment shift is less likely to be present in addiction-like temptation. While ordinary temptation is marked by the collaboration of wanting and liking, addiction-like temptation persists on only the wanting, even if the agent dislikes subsequent indulgences. As a consequence, addicts may succumb to temptation by just thinking that resistance is impossible.

If ordinary temptation is difficult to avoid, addiction-like temptation is even harder to overcome. In fact, addiction-like temptation begins with an already failed state, a condition that makes the person’s rebounding to the state of transcendence (preferring rational thinking over emotional dominance) an uphill climb. Due to the lapse that has already occurred, cases of compromise that follow could snowball into larger violations over time. This drifting of the person has been explained as *abstinence violation effects* (with particular reference to impulse control); following the lapse in one’s resolve (that is, violation of abstinence), the person feels like going on a binge. Lapse-activated, or snowballing, failures occur due to various reasons, including zero-tolerance beliefs, emotional reaction to the initial lapse, and a reduction of monitoring (Baumeister et al., 1994).²⁵ Any indulgence past the first of its kind does

²⁴ See <http://timesofindia.indiatimes.com/business/india-business/Full-text-of-Rajus-resignation-letter-to-the-Board/articleshow/3946538.cms?referral=PM>, accessed May 5, 2014.

²⁵ Zero tolerance for breakdowns in resolve would lead to strong frontline safeguards, but once these are broken, there is no further diligence imposed. Breaking the barriers, however well-guarded, could lead to the feeling that the resolve is no longer relevant. It is also likely that the person would lower the threshold on seeking feedback of further divergence, if any, since the breakdown has already been accepted.

not pass through the judgment shift; the continuation of entertaining oneself with the same stimuli seems automatic, not requiring any reconsideration of the moral resolve sacrificed at the beginning of the sequence. On the other hand, the actor is likely to continue to perform self-efficacy tests even in addiction-like failures.

In sum, abstinence violation effects could potentially explain addiction-like failures. Such failures are illustrative of psychological inertia. In repeated failures of the same kind over time, it is unlikely that ego depletion would explain the act, for it may be rare to find consistently same levels of ego depletion at the time of each occurrence.

The Case of Ponzi Schemes

Whereas a Ponzi scheme begins as a legitimate business, there is one distinct difference: the founder's business goals are not sustainable across time. The goals are clearly self-regarding in nature and the founder's disposition would likely be narcissistic or P(I) in almost all cases. Promising what is not sustainable as a reward for investment in the entity is a compromise of the moral agency at the very beginning of a relationship with the investor. Consequently, there is no judgment shift required; the moral breach has occurred at the outset. However, the founder will continue to manage self-efficacy throughout the operation of the scheme. In most cases, he would need help from others in augmenting self-efficacy; consequently, the very recruitment process for bringing key personnel on board would reflect a poor tone from the top. The governance issue in the case of a Ponzi scheme rests initially with the prospective investor, who would benefit from considering the founder's disposition as a fraud-risk factor.

DFM – A Comparison with Other Models

Hunt and Vitell (1986) proposed a general framework model suggesting that environmental factors (cultural, industrial, and organizational) interact with personal experiences, thus forming one's perception of the existence of an ethical problem, alternatives, and consequences. Through deontological and teleological evaluations, these result in ethical judgments operational in the development of intentions. The intentions interact with situational variables to produce behavior, which leads to consequences and adds to one's personal experiences. Common to both the Hunt and Vitell model and the DFM are: the recognition of environmental variables, the person-environment interaction in ethical problem-solving, and the interaction between intentions and situational constraints. However, there are significant differences in perspective. For example, human disposition and temptation, two central components in the DFM, are not explicitly incorporated in the Hunt and Vitell model.

The DFM incorporates some of the characteristics of the FT; for example, it includes rationalizations, albeit only as outcomes of indulgence (rather than as a condition for fraud to occur), and preserves the role of obstacles, which are somewhat comparable to internal controls. In the FT,

controls are not explicitly incorporated, while the DFM includes obstacles. The variable *attitude* – often seen as a replacement for the rationalization condition in the FT – is absent in the DFM. Instead, the inclusion of human disposition is logically well-founded in the DFM. The DFM exhibits much greater clarity, for it posits that integrity stems from disposition, self-efficacy incorporates the consideration by the fraudster whether he will actually be able to “pull it off,” and rationalizations are outcomes of indulgence. The DFM explicitly describes the interactions between character and circumstances. Importantly, one-time occurrences and repeated offenses are explained by the model, and the drama of Ponzi schemes, which has eluded professionals and regulators, is now framed in a proper context in this model. The model intuitively shows why executives who commit fraud have no prior record of any violations or any need for more wealth. “Greed” as an explanation has unfortunately muddied the discussion in the past; the DFM does not incorporate greed as a driver of financial fraud.²⁶ And it explicitly accounts for not just the actors, but also non-actors of fraud, something that is largely missing in the FT.

The theory of planned behavior (TPB) puts forth the relationship between intention and behavior. The TPB originally incorporated three variables: the agent’s favorable or unfavorable evaluation (or appraisal) of the behavior under consideration (*attitude*), perceived influence of significant others on the agent (*subjective norms*), and the agent’s perceived ability to perform the behavior (*perceived behavioral control* (PBC)). Beck and Ajzen (1991) in their study of dishonest actions added a variable: the responsibility to perform (or resist) a certain behavior (*moral obligation*). In the DFM, *attitude* does not appear as a separate variable, nor is there any role of *subjective norms*. The PBC is comparable to self-efficacy (Ajzen 1991, 184). And *moral obligation* in the DFM is implicit in resolutions – those intentions that should remain firm and unchanging. An important distinction is that in the DFM, disposition and moral obligation are an integral part of the process of occurrences of (or resistance to) dishonest action. Any overlap or association between *attitude* in the TBP and *disposition* in the DFM is uncertain. In a study to examine whether PBC can be empirically distinguished from self-efficacy, Manstead and Van Eekelen (1998) found that behavior was better predicted by self-efficacy than by intentions, and intentions were more closely related to self-efficacy than to attitudes, subjective norms, or PBC.

Suggestions for Further Research

An important contribution of this research is in offering an alternative model of financial fraud that incorporates the human side. The model is constructed from the “ground up,” without resorting to any currently existing fraud paradigms. Model building is an effortful exercise, and its benefits hinge deeply upon its initial acceptance by the research community for testing and validation. Although consistent with and supported by published literature, the DFM as a whole remains to be validated to establish its relevance; however, this will take time; initial acceptance of the model, albeit on some faith, is a necessary first step.

²⁶ An argument can be made, however, that greed drives the perception of short-term rewards as more attractive than long-term gains.

To simply suggest that the breakdown of moral resolve in the face of contrary inclinations triggers fraud is not enough. If this research is found promising, the next step is to investigate the specific nature of disposition, and the granular aspects of the process that drives the moral meltdown. Whereas a higher level understanding of how temptation actualizes into an act is helpful, specific answers are necessary to bring forward the model to a working stage. For example, in the process of comparison of short-term and long-term rewards during the judgment shift, what rewards do executives take into consideration, how are these measured, what time frame might be involved, and what tips the scale in favor of short-term gains – these are all significant questions that should lead to further development of the model. Table 2 classifies and summarizes significant research questions stemming from the DFM.

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Insert Table 2 about here.

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The articulation of the DFM has relied on the wealth of multidisciplinary investigation by various researchers of great repute. And yet, the specific context of financial fraud warrants that we test the model thoroughly. For example, studies of temptation often involve younger people who have no business understanding. Their comparison of immediate and long-term rewards involves relatively trivial and short-lived incentives (candy vs. carrots). Consequently, importing some of the empirical support from such research requires additional testing for the model to gain practical significance. This is unlikely to be easy, for the data collected thus far in the domain of financial fraud research appear to lack inputs relevant to the DFM. But this challenge in itself, if properly addressed, could lead to significant further insights into the chronic problem of financial fraud.

While a great deal of potential explanatory power is packed into the DFM, some aspects of the human side of financial fraud remain implicit. For example, the model does not address the role of emotions (anger, frustration, shame, etc.) in a fraud; perhaps their inclusion might add to the insights stemming from the model. Moreover, the discussion of the DFM does not articulate the predator involvement in an act of fraud. Further research in such areas within the context of the DFM merits consideration.

Undoubtedly, what has been laid out here will generate more questions, questions pertaining to further articulation of specific variables, measurement issues, and of the design of studies to test various propositions. The rewards of these efforts can be significant; if the model delivers on its promise, it can improve the practice of corporate governance, the identification of impactful fraud risk factors, and efficient development of potentially effective antidotes.

The call for recognizing the human side of financial fraud in a holistic sense is not new (see, for example, Ramamoorti, 2008; Henry, 2009). However, it seems the call remains largely unheard, perhaps because of the uncertainty of exploring uncharted territories. However, we need to begin the journey at some point, even at the risk of sounding absurd. Albert Einstein once remarked, “If at first, the idea is

not absurd, there is no hope for it.” The DFM may appear far-fetched; however, it is a first comprehensive exercise in building a new vision from the ground up. There is a sign of upside potential in the model; if proven valid, it can help prevent corporate meltdowns, improve the effectiveness of regulation, enhance audit efficiency and productivity, and sharpen control frameworks.

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Table 1 Characteristics of the three *gunas*

Disposition type	Basic description		Notation used	Expressed Behavior	Kohlberg's moral stage identification (1984)
	Existential knowledge (moral stage development)	Motivation for desire (passion)			
<i>Tamsik</i> (Nescient)	NO	NO		Negligent, error-prone, slothful, inattentive, dull, inactive, lack goal or direction.	
<i>Rajsik</i> (Subcoscient)	NO	YES	P(I), self-regarding	Liking and longing, desire for unpossessed satisfaction, passion to seek whatever appeals to them, unrestful, feverish, excited	Obedience and punishment orientation to compliance; self-interest; social norms.
<i>Sattvik</i> (Coscient)	YES	YES	P(E), other-regarding	Goodness, seeking lasting happiness, contentment, harmonious	Law and order morality; social contract orientation; universal ethical principles.

Table 2 Selected research agenda emerging from the DFM.

<p>JUDGMENT SHIFT:</p> <ul style="list-style-type: none"> • Identify factors leading to judgment shift in a financial fraud. <p>EGO DEPLETION:</p> <ul style="list-style-type: none"> • Examine significance of ego depletion in the occurrence of executive financial fraud. • Examine the effect of company performance volatility on ego depletion of CEOs. <p>REWARDS:</p> <ul style="list-style-type: none"> • Does the absence of earnings guidance remove the stimuli forcing the breakdown of resolve? <p>OBSTACLES:</p> <ul style="list-style-type: none"> • Conduct an analysis of the nature, timing, and structure of obstacles potentially effective in detecting or preventing fraud. • Study the differences between obstacles relevant to (1) an initial act of fraud and (2) persistent (addiction-like) acts of fraud and their potential significance in corporate governance. • Investigate the effect of timing (i.e., when an obstacle is triggered close to the fraudulent act or far from the time the fraud occurs). Test alternative structures for incentives to informants based on the timing of the fraud alert. <p>CONTROLS:</p> <ul style="list-style-type: none"> • Identify the nature and characteristics of temptations relevant to the design of internal control frameworks. • Examine the difference between characteristics of occurrence-based and opportunity-neutral controls. <p>SELF-EFFICACY:</p> <ul style="list-style-type: none"> • Identify practices to assess the level and effectiveness of independence of the CFO from the CEO. • Investigate the “strength” of relationship between the CFO and the audit committee of the board. <p>DISPOSITION:</p> <ul style="list-style-type: none"> • Investigate relationship, if any, between the company’s tone at the top and the CEO disposition. • Empirically test ways to incorporate an assessment of disposition in the recruitment of C-level team. <ul style="list-style-type: none"> ○ Investigate whether the disposition of executives with long tenure with the company is better known, and therefore a reliable signal of fraud risk factor. • Investigate the collective disposition of the C-level suite and examine possible consequences. • CEO and CFO disposition: A. Where the CEO is of P(I) disposition and the CFO is of P(E) disposition, examine the effects of strengthening the independence of the CFO. B. Where the CEO is of P(E) disposition and the CFO of P(I) disposition, test the likelihood that the CFO’s self-efficacy of a financial fraud is enhanced. C. Where both the CEO and CFO are of P(I) disposition, test whether frequent reviews of controls that rely on their independence from each other could help prevent fraud. • Investigate whether executives with the P(E) disposition can handle pressures better than those with the P(I) disposition. • Identify the nature of the relationship, if any, between P(I) disposition and narcissism. • Are independent directors (specifically audit committee members) and chief audit executives best suited to gauge the disposition of the executive because they have adequate access to the executive in various settings? • Should the external auditors ask for an assessment of the disposition of the top management team from non-officer directors? • Investigate the role of executive disposition in assessing executive pathology. Barnard (2009) recommends the board consider adding an agenda item: a systematic senior executive “pathology audit” with a view to “tease out behavioral problems, and squarely address the issue of CEO pathology.” • Should the audit committee participate in a C-suite succession planning exercise?

Fig. 1. A basic view of the DFM.

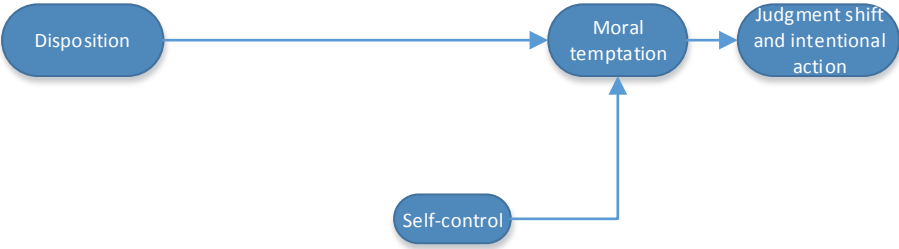


Fig. 2. The disposition-based fraud model (DFM)

