

University of Mississippi

eGrove

---

Electronic Theses and Dissertations

Graduate School

---

1-1-2022

## Motivation of Individual Directors: A Consolidated Perspective

Yankun Jia

Follow this and additional works at: <https://egrove.olemiss.edu/etd>

---

### Recommended Citation

Jia, Yankun, "Motivation of Individual Directors: A Consolidated Perspective" (2022). *Electronic Theses and Dissertations*. 2234.

<https://egrove.olemiss.edu/etd/2234>

This Dissertation is brought to you for free and open access by the Graduate School at eGrove. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of eGrove. For more information, please contact [egrove@olemiss.edu](mailto:egrove@olemiss.edu).

MOTIVATION OF INDIVIDUAL DIRECTORS: A CONSOLIDATED PERSPECTIVE

A Dissertation  
Presented for the  
Doctor of Philosophy  
Degree  
Department of Management  
The University of Mississippi

Yankun Jia

May 2022



## **Abstract**

This dissertation studies the motivation of individual directors on the corporate board and the impact of the motivation of individual directors. Building on previous work, I synthesize self-determination theory, identity theory, and social identity theory to build a comprehensive framework to understand the motivation of individual directors. By analyzing the satisfaction or frustration of basic psychological needs, the engagement of social roles, and the self-categorization and social identification process, this dissertation delivers a preliminary probe into the micro-foundations of the motivation of individual directors in the corporate governance literature.

## DEDICATION

This work is dedicated to my parents, without whose selfless support and tireless encouragement

I would not have come this far.

## ACKNOWLEDGMENTS

I would like to thank Dr. Richard Gentry, and Dr. John Berns, Dr. Walter Davis and Dr. Victoria Dickinson for their help in my research.

## Table of Contents

Title.....	i
Abstract.....	ii
DEDICATION.....	iii
ACKNOWLEDGMENTS.....	iv
1. THEORY DEVELOPMENT.....	4
2. HYPOTHESIS DEVELOPMENT.....	29
3. METHODS.....	35
4. RESULTS.....	40
5. DISCUSSION.....	44
List of References.....	50
VITA.....	68

## **Introduction**

Elite members exiting a corporate board following an adverse event receive many reports in business news, and these phenomena have intrigued more and more management researchers' interests (Boivie et al., 2012; Boivie et al., 2016; Harrison et al., 2018). After the fatal crisis of Boeing 737MAX, Boeing went through major leadership reforms, including its CEO and nearly half board directors leaving the company and electing a new CEO and new Chairman of the board (Johnsson, 2021). As seen in the news, not all directors made the same decisions, and some chose to stay on the board. Industrial and organizational psychology research has informed us those individual behaviors in organizational settings are influenced by their motivations (Kanfer, 1990). Thus, to understand those different behaviors of the directors, directors' motivation needs to be understood first.

In fact, for a long time, the research on the motivation of individual directors has been neglected. The tradition in management research was to treat directors as a collective unit, which does not help understand the motivation of individual directors (Tihanyi et al., 2014). Ever since upper echelons theory (Finkelstein, 1992; Hambrick & Mason, 1984) successfully drew attention to CEO and the top management team, researchers started to pay more attention to individual directors and their influence on the top management team and the company (Hambrick et al., 2008).

Consequently, director research has been gradually progressing. On the one hand, the research of the relationship between the CEO and the board became one-sided (Hambrick et al., 2008). The research on the CEO's motivations has advanced significantly (Tihanyi et al., 2014),



whereas the research on the motivation of individual directors has remained largely untouched. On the other hand, management scholars have mainly focused their research on the motivation of non-director employees. Work motivation of employees has been one of the central topics in organizational behavior research. It answers what energizes and controls the direction, form, intensity, and duration of an individual's behaviors (Murnieks et al., 2020). *“Work motivation affects the skills that individuals develop, the jobs and careers that individuals pursue, and the manner in which individuals allocate their resources to affect the direction, intensity, and the persistence of activities during work (Kanfer et al., 2017, p. 338).”*

To further develop the research on the motivation of individual directors, many management scholars have devoted themselves to the topic in the past decade. Two research streams have emerged to explain the motivation of individual directors. In one research stream, based on Hillman and her colleagues' (Hillman et al., 2008) theory paper, Cannella and his colleagues (A. A. Cannella et al., 2015) examined how different organizational identities impact the selection and the tenure of directors in two different types of companies, long-founder ownership, and family ownership. They explained the difference by elucidating the varied social identities acquired through the organizational identification process in those two different types of companies, such as in both companies, directors receive additional influence from the family or lone-founder, and both types of founders would seek to maintain control of the company. In this first research stream, the researchers refrained from discussing the motivation of individual directors but rather focused on the identities of the individual directors. I argue that the director's behaviors are directly influenced by their motivations, and their identities serve as sources of motivation. The identification process of the directors serves as a process of acquiring

internalized extrinsic and intrinsic motivation, which increases the total motivation of the individual directors (Gagné & Deci, 2005).

Another research stream, represented by Boivie and his colleagues (Boivie et al., 2012; Boivie, Graffin, Oliver, et al., 2016; Harrison et al., 2018), focuses on reputation maintenance and how it influenced the intrinsic motivation of the directors. They predicted that when star analysts give firm downgrade ratings, the directors may exit the board to avoid reputation damage. In this second research stream, researchers refrained from discussing various types of motivations but rather focused on the motivation to reputation maintenance. I argue that multiple motivations together impact the behavior of directors. For instance, in the empirical setting of star analysts downgrade ratings, the directors' reputations are at risk. The directors' feelings of capability might be reduced, decreasing their intrinsic motivation (Landry et al., 2017).

This dissertation aimed to study individual directors' motivation and adopted a unique empirical setting when companies receive downgrade ratings from star analysts (Harrison et al., 2018). This dissertation aims to develop a comprehensive framework that synthesizes self-determination theory, identity theory, and social identity theory to explain the motivation of individual directors and examine how individual directors' motivation would influence their decisions in the unique empirical setting. I consolidated and collected more than 9000 director-firm-year data points to test the hypotheses. The results suggest that a smaller board size will reduce the likelihood of directors' exit. The results also support that company with high CEO power has a higher likelihood of director exit; meanwhile, a company with high board power has a lower likelihood of director exit. Finally, the results show that directors that joined the company in the same year as the CEO have a lower likelihood of resignation.

## **1. THEORY DEVELOPMENT**

Research on the motivation of individual directors stems from the relics of conflicting results. Previously, extant corporate governance literature mainly focused on the legitimacy and function of the corporate board, and up to date, management scholars have summarized two main functions of the board - monitoring and resource provision (Hillman & Dalziel, 2003; Fama & Jensen, 1983; Jensen & Meckling, 1976; Pfeffer & Salancik, 1978). Strategy management scholars in the past have identified some predictors leading to the improvement of the effectiveness, efficiency, and performance of boards, such as board composition and board leadership structure. The predicament in the corporate board research is that scholars only find mixed evidence on whether those measures would improve the organization's financial performance (Dalton et al., 1998, 2003).

The attempts to explain the board's efficiency by addressing the board only as a collective unit failed (Certo et al., 2006; Daily et al., 2003), but the failures enlightened management scholars to explore other explanations that would further extend the corporate board literature. Researchers suggested that a promising perspective would be to investigate the individual nature of the directors (Hambrick et al., 2008). Rather than treating the board of directors as a homogeneous unit in the early stage of research, management scholars begin to treat directors as separate individuals that have different motivations with different influences in the board (McNulty & Pettigrew, 1996). In the following section, I review the evolution of the corporate governance literature from a collective perspective to an individualistic perspective.

## **Evolution of the Corporate Governance Literature: From a Collective Perspective to an Individualistic Perspective**

I first review the development of the research regarding corporate boards, which will help better understand what achievements and mistakes were made in the past and why it is essential to research the motivation of individual directors. The idea of using elected governing boards can find its roots in the political practices in Western Europe in the late Middle Ages. The formation of the practice of the board dated back to the mid-1500s. The English trading companies (such as the East India Company) and the continental European trading companies (such as the Dutch East India Company, formed two years after the formation of the English East India Company) developed board governance as a model for a business corporation (Gevurtz, 2004). The Bank of England provided the clearest example of the influence on the American practice when its 1694 charter designated a board of twenty-four directors, which seemed to have pioneered the term “directors”.

Scholars have studied this organizational constituent from various perspectives, including law, finance, accountancy, economics, sociology, psychology, and management (Hambrick et al., 2008). Scholars from multiple disciplines theorized the necessity of the board as the need for central management, group decision-making, representation of corporate constituents, and mediating claims to distributions and monitoring of management. Management scholars have focused on developing theories that explain the functions of the corporate board. The necessity and effectiveness of the board have long since been the foci of management research.

In such a research tradition, management scholars treated the board of directors as a whole and discussed its function and effectiveness as an essential part of the organization's structure. The most popular and widely accepted theories in the management field are the agency

theory (Fama & Jensen, 1983; Jensen & Meckling, 1976) and the resource-dependence theory (Hillman & Dalziel, 2003; Pfeffer & Salancik, 1978). On the one hand, agency theorists describe the board of directors as part of the monitoring mechanisms designed to manage the top managers' behaviors. On behalf of the shareholders, the board of directors serves as a mechanism to monitor the operation of a company and assess the company performance as well as the top management team. On the other hand, resource-dependence theorists consider the board of directors as resource providers who can help the company to acquire key resources to survive and grow (Fama & Jensen, 1983; Hillman & Dalziel, 2003; Jensen & Meckling, 1976; Pfeffer & Salancik, 1978). Meanwhile, the directors also provide their companies with necessary resources and constructive advice to grow and thrive.

For decades, these studies have increased the breadth and depth of the understanding of the board. It is helpful and easy for us to treat the board of directors as a collective unit when we assess the two functions of the board, mainly because we need to evaluate the interaction among the board and other structural parts of the company and to measure the effectiveness of the board as a unit. However, only focusing on the functions of the directors has its pitfalls. Earlier studies regarding the effectiveness of the board of directors' monitoring mechanism, including the composition (the proportion of insider directors or outsider directors) and the leadership structure of the board of directors (Kochhar & Hitt, 1998; Waddock & Graves, 1997), did not lead to any conclusive findings (Daily et al., 2003; Dalton et al., 1998).

The failure in reaching conclusive results not only shook the legitimacy of the corporate board but also pointed out a new direction for management researchers: the board is composed of individual directors, and it is reasonable to assume that for all the individual directors within the board, each director has a separable impact on the effectiveness of board functions, monitoring

and resource provision (Daily et al., 2003; Golden-Biddle & Rao, 1997; Tihanyi et al., 2014).

Many management scholars felt that it is compelling to look beyond the viewing of the board of directors as a whole unit (B. Cannella et al., 2008). Individual directors' behaviors as a collective form the behaviors of the board and impact the functions and efficiency of the board.

Researchers gradually transitioned from a collective perspective to an individualistic perspective of the board of directors (Boivie et al., 2012; Boivie, Graffin, & Gentry, 2016; Hillman et al., 2008; Withers et al., 2012).

### **Extend Work Motivation Research to the Context of the Corporate Board**

The idea that the individual director makes an important impact on corporate board functions inspired many scholars. Their research extended to the directors' behaviors and the board composition/director selection process, such as the study of the degree of demographic similarity between the CEO and the board influence the CEO compensation (Westphal & Zajac, 1995); the moderating effect of CEO power on the board composition-firm performance relationship (Combs et al., 2007); the impact of board capital on strategic change (Haynes & Hillman, 2010); the board chairs' influence on firm performance (Withers & Fitza, 2017).

Thus, to fully understand the behaviors of individual directors, we need to understand the primary factors that impact all individuals – motivation, such as: Why would the directors be motivated to serve on the board or why would the directors be motivated to exit the board. Work motivation research found that motivation energizes an employee's behavior and decides the direction of the employee's behaviors (Kanfer & Ackerman, 2004; Vroom, 1964). Similarly, the directors' motivations also have an important influence on the directors' behaviors and actions and the effectiveness of the corporate board (Withers et al., 2012). All the research findings mentioned above pointed to the same fundamental questions: Why would the directors behave

the way they do? What is their motivation? Will the directors change their behaviors and motivations?

Although the common motivation factors impact the directors, we must acknowledge some significant differences between the director and non-director employees. First, on average, the directors have mostly built up their careers in a particular industry, and most of their financial situations are not determined by their directorship. The compensation from the company would have a significant impact on the financial condition of non-director employees, including the top management team (Milbourn, 2003), and are often used as a rewarding mechanism (Hom & Kinicki, 2001). The directors, however, are mostly immune to this impact. Second, most directors do not have a direct command chain to receive orders. The position as a director in the company means that they do not have a direct reporting boss, and their jobs are not under direct supervisory. This condition is also different from other employees who routinely have their job predefined and regularly experience performance appraisal. These differences determine that individual directors have distinctive differences from other employees in the company. Thus, the work motivation research of the individual directors is different from that of non-director employees. It is essential to extend work motivation research from the context of employees to that of the directors.

The research on work motivation in the past did not pay much attention to the directors' level. Some scholars proposed aligning the directors' interest with the company by increasing the stakes of the directors (Hambrick & Jackson, 2000). However, it did not investigate the motivations that inspired the directors to join and serve on the board and how the motivation varies through different contexts, including changes in the director's career stages or social groups. In the past decade, strategy management researchers shifted to focus on workplace

motivation of the directors'. The most influential theories explaining the motivation of the board of directors are self-determination theory (SDT (Boivie et al., 2012)), identity theory, and social identity theory (Hillman et al., 2008). The following sections introduce the background and development of identity theory, social identity theory, and self-determination theory.

### ***First Research Stream - Identity Theories and the Corporate Board Literature***

Both identity theory and social identity theory imply that the self is multifaceted (Stryker & Serpe, 1982; Tajfel, 1974), and the self is a broad and complex concept that can be further dissected into multiple identities. Early sociologists argued that human beings' identity was established when they acknowledged that they were a participant (role) or a member (social group) of social relation (Gross & Stone, 1964). Originating from these discussions, identity theory and social identity theory theorists proposed two different origins (basis) of identities of the self.

In the early days, sociologists primed into the research of identity (or self-conception) to help them understand questions such as how one's family identity impacts their behaviors in family-related situations (Stryker, 1968). Identities are initially introduced as the substantive dimension of the self and an indicator of role performance (Gross & Stone, 1964). *Identity theory is based on this assumption and proposed that individuals gain identities from the roles they play in society* (Stryker, 1980).

Early studies on intergroup relations proposed three underlining processes of intergroup relations: categorization, assimilation, and search for coherence (Tajfel, 1969). It is common to observe that people simplify stereotypes and break continuous dimensions into discrete characteristics to accomplish social categorization. Social identity originates from this social categorization, and the content of the categories is generated over a long period within a culture



(Tajfel, 1969). *Social identity theory argued that individuals gain identities from the membership of the social groups or categories they belong to* (Tajfel, 1974).

By combining the two theories, scholars formed a broad framework to elucidate that an individual self's multiple identities originated from the roles they played in their lives and the social groups they were members of. The process in which an individual acquires a new identity was initially defined as the identification process in identity theory (McCall et al., 1978) or the self-categorization process in social identity theory (Hogg & Turner, 1985).

The multifaceted nature of the self brings both benefits and costs (Hillman et al., 2008). Multiple identities can bring flexibility in response to a variety of situations because of their wide range of identities in the self (Hoelter, 1985). However, multiple identities can also incur conflicts among different identities and increase the potential for exhaustion (Kreiner et al., 2006). These conflicts can be reduced when identities converge or align with each other (Balmer & Greyser, 2002).

*Identification is defined as the process when an individual defines themselves as a role occupant or a social group member in terms of the perceived role or social group* (Mael & Ashforth, 1992; Stryker, 1980). Individuals acquire new identities for the self through the identification process. After acquiring identities through the identification process (Mael & Ashforth, 1992; Stryker, 1980), individuals would initiate a process that propels them to conduct in a congruent way with their role-based identities or social group-based identities (Hogg & Terry, 2000).

Scholars have established the link between individuals' identities and their behaviors. The salience of an individual's identity will increase the motivation for individuals to perform in a way that fits their role and social group (Ashforth et al., 2008). Since individuals' identities'

saliency can be influenced by various contexts (roles or social groups) and their strength of identifications with the contexts, individuals' motivations and behaviors can be different in different contexts, and even under the same contexts, individuals' motivations and behaviors differ from each other (Callero, 1985).

Thus, one key factor influencing the employees' behaviors is their organizational identification (Foreman & Whetten, 2002). Organizational identification is defined as "the degree to which a member defines himself or herself by the same attributes that he or she believes define the organization" (Dutton et al., 1994). Scholars found that the saliency of individuals' organizational identification influences their attitudes and behaviors toward their organizations, including operation, commitment, satisfaction, and turnover (Ashforth & Mael, 1989; Dutton et al., 1994; Foreman & Whetten, 2002). There is not a conclusion regarding how multiple identities of the employees of an organization may influence their performance. Scholars tend to agree that when the employee's multiple identities converge and are related to each other, multiple identities can be beneficial (Hillman et al., 2008; Riketta & Nienaber, 2007).

But to that extent, scholars were not discussing the identities of the directors even though an overwhelming majority of the corporate governance research was trying to link board to firm performance. Scholars have called for a deeper understanding of the antecedents of board functions (Hambrick et al., 2008; Pettigrew, 1992). Hillman and her colleagues' (2008) pioneering work explored individual directors' motivation as an antecedent of board effectiveness. Hillman and her colleagues followed the inspiration of Golden-Biddle and Rao (1997) to investigate the individual-level engagement of directors. Golden-Biddle and Rao (1997) argued that a director's identification with the organization would influence the board's functions. Based on that argument, Hillman and her colleagues (2008) furthered their research by

using identity theory and social identity theory and answering how directors' multiple identities (including the corporate identity) and the strength of their identification influence the board function.

Hillman and her colleagues (2008) extended identity theory and social identity theory in the context of individual directors. Following Hillman and Dalziel's (2003) model of board functions, Hillman et al. (2008) argued that individual directors might acquire multiple identities from within or outside the organization. The previous research stream of agency theorists popularized the role of the board of directors as corporate watchdogs (Jensen & Meckling, 1976), and the definition of the role of the board of directors has established its root in the academic as well as the corporate world. Pettigrew and his colleagues (1992, 1996) later found that individual directors often consider themselves advisors or counselors rather than monitors. Hillman and Dalziel (2003) argued that resource-dependence theory (Pfeffer & Salancik, 1978) supports this argument that the board of directors provides four types of benefits, including advice and counsel, channels for communication between firms and their externalities, access to external resources, and legitimacy.

Hillman et al. (2008) further explored how directors' multiple identities influence monitoring and resource provision functions. They argued that directors identify with various identities, including as a director, a CEO, a shareholder, an organizational member, and a stakeholder, and that directors' multiple identities would impact their monitoring and resource provision functions within the firm (Hillman et al., 2008). While there are many other identities that the directors identify with (gender, ethnicity, among others), those five identities can be generalizable across directors and boards (Hillman et al., 2008).

### ***Second Research Stream – SDT and The Corporate Board Literature***

The concept of self-determination dates to the late 1800s psychological concepts such as volition or will (James, 1890). However, it is underdeveloped because of the prevalent nonvolitional theories of domination. Until the middle of the 20<sup>th</sup> century, two developments set the stage for self-determination: first, the movement from heteronomy toward autonomy in the determination of behavior; second, the cognitive movement shifted from associative bonds to decisions in the directionality of behavior. Researchers (Lewin, 1951) suggested that intentionality and will are among the determinants of behavioral decision making and that one's perception of control impacts one's outcome, which led to the formulation of the expectancy theory. Researchers argued that ego development progress toward more autonomous functioning (Loevinger, 1966) and that autonomy is vital for understanding the qualities of the ego's adaptation (Shapiro & Shapiro, 1981).

Self-determination is not the same as the concept of control, as control is a necessary but not sufficient condition of self-determination. The perception that one does not have control over outcomes will lead to negative consequences (Langer & Saegert, 1977; Rodin et al., 1978), or vice versa (Glass & Singer, 1972). Self-determination involves control and the option to give up control, and it can be supported or hindered by external environmental factors (Deci & Ryan, 1985).

Self-determination theory, in the beginning, was just an experimental study of individuals trying to master their internal and external environments (human organism being passively influenced by external factors) (Deci & Ryan, 1985). It is a theory that is concerned with the basic psychological needs of human beings (Van den Broeck et al., 2016). Whereas basic needs include physical and psychological needs, psychological needs are not as clearly defined as physical needs. The most well-known prior research defined a need as "a force which organizes

perception, apperception, intellection, conation, and action in such a way as to transform in a certain direction an existing, unsatisfying, situation” (p. 124)(Murray, 1938). Researchers (Ryan & Deci, 2017) also defined needs as “nutrients that are essential for growth, integrity, and well-being”, basic needs as “observable and meaningful positive consequences for health and thriving stemming from its satisfaction and significant harms stemming from its deprivation or frustration, regardless of preferences”; basic physiological needs as “nutrients required for bodily health and safety”, and basic psychological needs as the “satisfactions for personality and cognitive growth”, which indicates that the satisfaction of the needs will improve one’s health and wellbeing of human beings, vice versa.

Scholars transiting from the study of physiological needs to the study of psychological needs promoted the study of SDT (Gagné & Deci, 2005). Self-determination theory falls into the study of psychological needs and posits that a core set of psychological needs are “universally essential for optimal human function, regardless of developmental epoch or cultural setting” (Ryan & Deci, 2017). The core set of psychological needs is those for autonomy, competence, and relatedness (Deci & Ryan, 2010; Ryan & Deci, 2017).

Autonomy, the need to self-regulate one’s experiences and actions, is a form of functioning associated with feeling voluntary, congruent, and integrated (Decharms & Carpenter, 1968; Shapiro & Shapiro, 1981), partially discussed in previous chapters. In SDT’s view, autonomy means that one’s behaviors are self-initiated and interested but not regulated by external environmental factors or reinforced. As is studied (Bandura, 1989; Deci et al., 1975; White, 1959), competence refers to the need to feel effective and mastery for human beings. Relatedness (Ryan, 1995) concerns the feeling of connection with other people or social entities and interaction with others, including caring and being cared about.

Although SDT has been around for more than 30 years, the use of SDT to study the upper echelon phenomenon has been quite recent. *Self-determination theory argues that human beings must fulfill their basic psychological needs to maintain the status of wellbeing* (Deci & Ryan, 1985). Basic psychological needs can be satisfied or frustrated. Boivie, Graffin, and Pollock (2012) argued that board member departures following negative events were mostly voluntary rather than involuntary, which was the prior common belief. They argued that directors' departures resulted in the change or loss of motivation that motivated them to serve in the first place, and both intrinsic motivation and extrinsic motivation were involved in the process. Prestige is an indicator of social capital (Sauder et al., 2012) that emerges from the social activity and group affiliation (Certo, 2003; Pollock et al., 2010), and it was proposed as an extrinsic motivation factor (Boivie et al., 2012). Previous studies found that an individual's broader social order status tends to be a core aspect of the self (Johnson et al., 2006), and for the directors, prestige was an integrated regulation motivation process that is fully self-determined and internalized, although Boivie and his colleagues (2012) did not expand their explanation to need frustration. Need frustration is the experience of a human organism that the basic psychological needs are thwarted other than satisfied within social contexts. From the need frustration perspective, when negative events happen to a firm, the perceived prestige of the firm is damaged, and the directors associated with the firm lose their prestige as well. This social context would lead to need frustration, including low need satisfaction.

Influence and commitment were proposed as another motivation factor and intrinsic motivation. Anecdotal facts provide the support that the feeling of influence contributes to the need satisfaction of competence (Deci et al., 1999; Grant & Berry, 2011). The ability to assert influence on the company intrinsically motivates the director to join the board of the focal

company. How when a negative event occurs, the feeling competence would be significantly reduced.

An important fact proposed is the busyness level of the director (Boivie et al., 2012). Even though the need for competence might be satisfied, when the director's busyness increases and more pressures have been put on their schedule, the directors' need for autonomy would be infringed. As discussed earlier, this situation puts the need for autonomy and competence in conflict and thus is a typical need frustration condition. The directors would choose to leave the company to avoid such a situation to maintain their well-being.

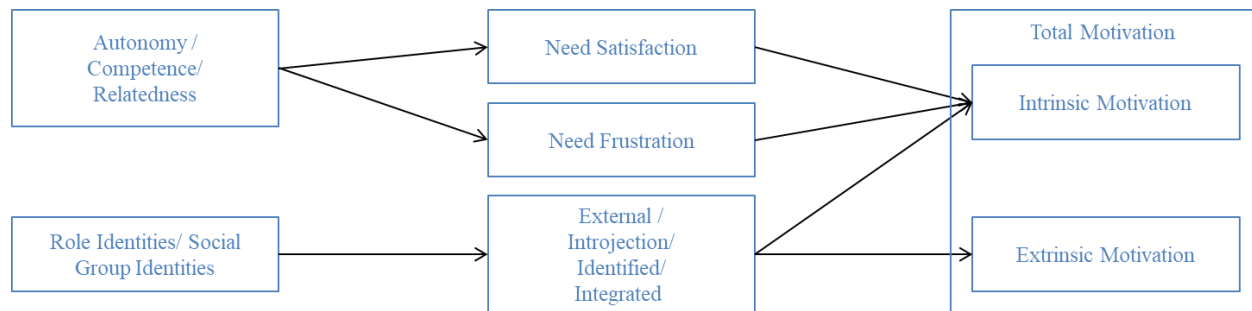
Another factor proposed in their paper is the reputational and financial risk which I argue is the opposite side of prestige. As they did not argue about need satisfaction with prestige, they did not expand to need frustration for reputational and financial risk. However, if we consider need frustration as the reputational and financial risk increases, it will naturally cause a decrease of need satisfaction or increase of need frustration. It reconciles with their argument that reputational and financial risk demotivate the directors to remain in position.

### **Reconciliation of Two Research Streams – Intrinsic and Extrinsic Motivation Theory**

Researchers argued that motivation theory is the lens to study the why of behavior (i.e., the direction and the energy of the behavior), and that motivation can come from multiple levels simultaneously (Coffman & Sunny, 2021; van den Broeck et al., 2021). I propose that intrinsic motivation is the underlying framework that provide explanation to both of the research streams regarding the motivation of individual directors, see Figure 1.

#### **Figure 1**

*Theoretical Model*



### ***Intrinsic Motivation***

Intrinsic motivation was first introduced by Woodworth (Woodworth, 1918) but was shadowed under the then influential non-motivational viewpoints of Thorndike (Thorndike, 1913) and Watson (Watson, 1913). Meanwhile, the only undergoing motivational research followed the nature of drives and reached its peak at Hull's (Hull, 1943) drive theory. Hull's (1943) drive theory claims that human beings' behaviors are based on four primary drives: hunger, thirst, sex, and the avoidance of pain, and any behavior that reduces the urge of the drive would be more firmly bonded to the drive stimulus. In Hull's (1943) drive theory, the drives are the energy, and the bonds between the behavior and the drive stimulus are the direction at the physiological level.

Numerous empirical studies had been conducted to test Hull's (1943) drive theory, and some of the researchers failed to find congruent results according to Hull's (1943) drive theory, but instead, they found behaviors that were potentially driven by another energy (Harlow, 1950). Harlow (1950) introduced the term intrinsic motivation to explain the energy that drove the behaviors other than the four primary drives according to Hull's (1943) drive theory. However, due to the then prevalent influence of drive theory, scholars continued to try to explain this phenomenon by extending the anxiety reduction and secondary reinforcement assumption and naming new drives such as exploratory drive (Montgomery, 1954), avoid boredom (Myers &



Miller, 1954), manipulation drive (Harlow, 1953), sensory drive (Isaac, 1962) and visual exploration (Butler, 1953).

The attempt to use drive theory to explain intrinsic motivation failed because intrinsic motivation does not possess the traditional properties of drives (Deci & Ryan, 1985). However, the failed attempt was meaningful as it allows researchers to clearly distinguish intrinsic motivation and drive-based motivation as two separate motivations. These researchers mostly used physiological theory to explain the new phenomenon (such as optimal arousal (Fiske & Maddi, 1961; Hebb, 1955; Leuba, 1955)), and meanwhile, other researchers explored along the cognitive tradition using the psychological construct of incongruity (i.e., psychological incongruity theories, e.g. dissonance reduction - (Festinger, 1962); uncertainty reduction - (Kegan & Rubenstein, 1972; Lanzetta, 1971); discrepancy from adaptation - (McClelland, 1965); optimal incongruity - (Dember & Earl, 1957); optimal arousal potential - (Berlyne & Crozier, 1971); (Deci & Ryan, 1985)). To summarize, the central premise of the psychological incongruity theories failed to include the needs of human beings (i.e., the energy of motivation, although Berlyne (1971) merely focused on the physiological needs instead of psychological needs) but largely explained the direction of the behavior.

While the physiological drive approach and cognitive approach failed to explain the intrinsically motivated behaviors comprehensively, other scholars attempted to explain the phenomenon using psychological needs in nature. Following Woodworth's (1918, 1958) behavior-primacy theory (proposing that behaviors are aimed to impact the environment), White (1959) proposed the need for effectance (a tendency to explore and influence one's environment) is the motivation that energizes the wide range of non-drive-based behaviors. White (1959) named the energy "effectance motivation" and the corresponding effect as the feeling of

“efficacy” and used the term “competence” to describe the capacity of the organism’s effective interactions with the environment to survive. White (1959) argued that drives do not reemerge for a certain time after being satisfied. However, effectance motivation is a persistent and ongoing process that may be interrupted by the primary drives. Deci (1975) proposed that human beings acquire competence through interaction with challenging stimuli.

Given many non-intrinsically motivated behaviors may also be competence-enhancing or driven by interest, intrinsic motivation operates autonomously rather than under pressure or controls (also see the need of self-determination (Deci & Carpenter, 1968)). To be self-determined, human beings must acquire competencies continuously to manage the external environment (Angyal, 1941; Deci & Ryan, 1985). Intrinsic motivation research’s rebirth is rooted in the criticism of Hull’s drive theory (White, 1959). Based on the criticism of the drive theory, many researchers were determined to develop an alternative approach to explain the motives of the human organism. Until the 1970s, there are various attempts toward conceptualizing intrinsic motivation.

### ***Extrinsic and Intrinsic Motivation and SDT***

Motivation theories fall along a descriptive continuum ranging from mechanistic to organismic whereas the mechanistic theories assume that the human organism is passive and driven by physiological factors such as sex and fear (Hull, 1943) and environmental stimuli. In contrast, the organismic theories assume that the human organism is active driven by physiological factors and intrinsic needs, which provide the energy and “to manage aspects of their drives and emotions, and that “stimuli not as causes of behavior, but as affordances or opportunities that the organism can utilize in satisfying its needs” (Deci & Ryan, 1985).

From the organismic perspective, assuming that the human organism is active, the energy and direction of the motivational theories are clearly defined. The energy of the human activity and the development of the internal structure is referred to as *intrinsic motivation*, and the direction (the process) is influenced by the energy acting on the internal structure and external environments (Blasi, 1976). Although the human organism is active in the organismic theories, it is also vulnerable to passive influence, subjecting to external influence. These vulnerabilities allow the organism to be conditioned under a certain context and through which its psychological process might become rigid (Deci & Ryan, 1980). According to these assumptions, the self is defined as the internal and unified structure (Ramarajan, 2014).

From the SDT perspective, intrinsic motivation is defined as “based on the innate, organismic needs for competence and self-determination” (Deci & Ryan, 1985; White, 1959). The intrinsic needs of competence and self-determination motivate an ongoing process of the human organism. Emotions are inherently integrated with intrinsic motivation in that people intrinsically motivated would experience interest and enjoyment, competence, and self-determining (Deci & Ryan, 1985).

Self-determination theory assumes that failure to satisfy any of those three needs will lead to a detrimental effect on one’s health, whereas the satisfaction of those three needs will bring people vitality and well-being (Van den Broeck et al., 2016). However, SDT does not assume that all individuals or social entities will equally recognize or be able to fulfill their needs. Since SDT views the three needs as unifying and essential needs for all human beings, the importance of the strength of the needs are not a primary concern, but instead, to which degree the needs are satisfied or frustrated or to which extent the external environmental factors support or thwart the satisfaction of the needs are most important (Sheldon & Prentice, 2019).

Unlike researchers in other motivation steams who avoid talking about basic psychological needs, the SDT theorist suggests that the three needs are universal and must be continuously satisfied across a person's life span to achieve "eudaimonia" (Ryan & Frederick, 1997). When the basic psychological need satisfaction is blocked and frustrated, the human organism cannot achieve its optimal function, resulting in passivity, fragmentation, ill-being, and pathogenic (Bartholomew et al., 2011). Need frustration is the experience of a human organism that the basic psychological needs are thwarted other than satisfied within social contexts. To illustrate need frustration, we need to consider two scenarios. First, one may feel less connected with his colleagues at work and thus has a low satisfaction level of relatedness. Second, one may be actively rejected or excluded by colleagues such that his need for relatedness is actively thwarted and blocked. These two scenarios are subtly different and need to be distinguished because low need satisfaction does not necessarily equate with need frustration but need frustration to include low need satisfaction. The reason to differentiate these two conditions is that low need satisfaction may not lead as much to malfunction or ill-being as frustrated needs (Vansteenkiste & Ryan, 2013).

To better understand the subtle differences between need satisfaction, low need satisfaction, and need frustration, SDT theorists propose that social environments leading to those conditions can be distinguished respectively as need-supportive, need-depriving, or need-thwarting (Vansteenkiste & Ryan, 2013). The need-supportive environment helps one to fulfill basic psychological needs. The need-depriving environment does not facilitate the fulfillment of the basic psychological needs and has little influence or indirect influence on the level of need satisfaction, which only allows low need satisfaction. However, the need-thwarting environment

actively blocks the path to need satisfaction and creates a hostile condition that the basic psychological needs cannot be satisfied.

The need-supportive environment helps individuals achieve need satisfaction and acts as a buffer against the emergence of malfunction by building an innate logic against need frustration long-lasting psychological protection. On the contrary to a need-supportive environment, the need-thwarting environment can distort and delay the experience of need satisfaction. It could result in fewer development resources for growth, well-being, and motivation (Vansteenkiste & Ryan, 2013).

Researchers find that need frustration generates two kinds of consequences from past studies. The first type of consequence is ill-being, which is an immediate cost after the need frustration. The second consequences need substitutes and compensatory behaviors (Ryan et al., 2006; Ryan & Deci, 2000). Early studies have shown that need satisfaction (autonomy need satisfaction) can reduce anxiety and depressive cognitions and symptoms (Dwyer et al., 2011). Studies also have shown that the need-thwarting environment could lead to ill-being as well; for example, researchers found that maternal overcontrol could lead to an aggressive trait (Joussemet et al., 2008). Need frustration was found to relate uniquely to ill-being among athletes and coaches in the sports field (Bartholomew et al., 2011; Stebbings et al., 2012). Human beings develop coping mechanisms to deal with need frustration.

### ***Maladaptive mechanisms – Need substitutes and compensatory behaviors***

When individuals experience need frustration, they also tend to engage in goals that can compensate for need frustration, i.e., need substitutes (Ryan & Deci, 2000). To illustrate what needs substitutes are, we need to distinguish extrinsic goals and intrinsic goals. Extrinsic goals are the pursuit of fame, attractiveness, and materialism, which are portrayed as signs of success

in consumer culture (Dittmar, 2004; Kasser, 2002; Kasser & Ryan, 1996). Intrinsic goals are the pursuit of personal growth, giving back to the community, and building intimacy with others (Vansteenkiste & Ryan, 2013).

The experience of need frustration makes individuals turn to the pursuit of extrinsic goals; for example, previous research has found that children who grew up in a need frustration environment are more likely to pursue extrinsic goals (Thøgersen-Ntoumani et al., 2010). Those goals tend to generate a feeling of satisfaction trying to substitute the not satisfying basic psychological needs. However, in the long run, extrinsic goals cannot satisfy basic psychological needs and hinder well-being (Kasser & Ryan, 1996). Studies have found that intrapersonal outcomes such as anxiety, physical symptoms, and drug abuse (Niemi et al., 2009; Sebire et al., 2009; Williams et al., 2000), and interpersonal outcomes such as aggressive and discriminatory attitudes toward minorities and Machiavellism (Duriez et al., 2007; McHoskey, 1999) could emerge from the long-term pursuit of extrinsic goals.

The negative effects of extrinsic goal pursuits are common among all individuals across different cultures. The achievement of extrinsic goals does not help achieve well-being but was associated with more ill-being (Niemi et al., 2009; Van Hiel & Vansteenkiste, 2009). Researchers also found that the pursuit of extrinsic goals increased in the past generations and resulted in rising cases of psychopathology indices (Twenge et al., 2010). Compensatory behaviors are also observed to need frustration conditions. Three class behaviors are observed (a) releasing self-control, (b) rigid behavioral patterns, and (c) oppositional defiant behavior (Ryan et al., 2006; Ryan & Deci, 2000).

Releasing self-control refers to the behaviors that individuals either relax self-control or actively revolt against self-control. Need frustration is associated with alcohol abuse, smoking,

eating disorders, and self-injurious behaviors (Knee & Neighbors, 2002; Schüler & Kuster, 2011; Vansteenkiste et al., 2014; Williams et al., 2009). When individuals' autonomy need is satisfied, their autonomous self-control costs less energy to perform (Deci & Ryan, 1985). However, forced self-control would consume more energy when the autonomy need is thwarted. To protect the human organism from breaking down, individuals tend to release self-control when experiencing need frustration (Ryan et al., 2006).

Rigid behavioral patterns refer to the behaviors that individuals stick to certain behavioral patterns as a "script" to acquire a sense of security and things-in-control (Vansteenkiste & Ryan, 2013). When individuals' behavior successfully follows the script, short-lived happiness and relief would emerge to compensate for the need frustration. However, when the individual's behavior falls off the script, guilt and self-criticism would emerge, making need frustration worse. Previous studies found that the use of conditional regard in controlling parenting promoted internal compulsion to follow orders which decreased the well-being of the children (Assor et al., 2004). Previous studies have also found that such rigid behavioral patterns could lead to the development of contingent self-esteem and moral malfunctioning (Deci & Ryan, 1995; Vansteenkiste et al., 2010).

Oppositional defiance refers to the behaviors that externalize problems by resisting to engage in social activities (Deci & Ryan, 1995). When individuals are placed in a need-thwarting environment, they could choose to give in under pressure or to defy the authority figures. This could help explain why some controlling parenting predicts more aggression (Joussemet et al., 2008).

### ***Need satisfaction and motivation***

Need frustration and need satisfaction are two sides of the same coin. While need frustration would lead to ill-being, need substitution and compensatory behaviors, *need satisfaction has been found to increase intrinsic motivation as well as internalized extrinsic motivation* (Deci & Ryan, 2000). Intrinsic motivation is rooted in people's needs to feel competent and self-determined (Deci et al., 1975), with the need to feel related being a dismal factor. The SDT proposes that individuals will pursue goals, domains, and relationships that facilitate or promote need satisfaction. Extrinsic motivation refers to the "performance of an activity to attain some separable outcome" whereas intrinsic motivation refers to "doing an activity for the inherent satisfaction of the activity itself" (Ryan & Deci, 2000).

How does need satisfaction to influence different degrees of intrinsic motivation? SDT argues that the human organism is a proactive organism, and humans have the tendencies to develop and grow. This growth requires physiological nutrients as well as psychological nutrients. SDT defined three basic psychological needs as the universal nutrients for human organisms to grow – the need for autonomy, competence, and relatedness. Following this logic and proposition, humans would find it interesting and innately triggered to initiate activities that satisfy the three basic psychological needs because human organisms need the psychological nutrients to grow and maintain their well-being.

Intrinsic motivation concerns activities that humans find innately interested in and energized to conduct, which means that intrinsic motivation stems from the human organism's craving for need satisfaction (Deci & Ryan, 2000). Thus, the satisfaction level of all three basic psychological needs determines intrinsic motivation. Previous scholars found that extrinsic rewards undermine intrinsic motivation (Deci et al., 1999). People feel controlled by the extrinsic reward, and the perceived locus of causality shifts from internal to external factors (Heider,



1958). The SDT perspective explains this finding that extrinsic rewards deprive the feeling of autonomy which is the nutrient of human organism growth (Deci & Ryan, 1980). Previous studies also found that the perception of autonomy mediates the relationship between autonomy need satisfaction and intrinsic motivation (Reeve & Deci, 1996).

Early studies showed positive feedback enhanced (Deci, 1971) and negative feedback decreased intrinsic motivation (Deci & Cascio, 1972). Deci and Ryan (1980) proposed that feedback serves as the measure of the individual's competence, and the need satisfaction of competence influences the level of intrinsic motivation. Researchers (Vallerand & Reid, 1984) supported the proposition that competence mediated the relationship between feedback and intrinsic motivation. Later studies found that need satisfaction of autonomy and competence combined to form an optimal function of intrinsic motivation (Deci & Ryan, 1985). They (Deci & Ryan, 1985) proposed that need satisfaction of perceived competence is the necessary condition for all motivations and that need satisfaction of perceived autonomy is the required condition for intrinsic motivation. Compared to the need for autonomy and competence, the need for relatedness plays a dismal role in promoting intrinsic motivation (Deci & Ryan, 2000). Need satisfaction of relatedness would make intrinsic motivation more robust and flourishing (Ryan et al., 1994).

### ***Identity Theories and Extrinsic and Intrinsic Motivation***

Internalization refers to “an active, natural process in which individuals attempt to transform socially sanctioned mores or requirements into personally endorsed values and self-regulation” (Deci & Ryan, 2000). Internalization of extrinsic motivation is a process that happens when individuals socialize themselves into society. Internalization includes four types: external regulation, introjected regulation, identified regulation, and integrated regulation (Deci

& Ryan, 2000). External regulation means the extrinsic motivation is not at all internalized. Individuals engage in the activities to avoid potential punishments or to achieve extrinsic rewards. The external regulation process is detrimental to intrinsic motivation and does not contribute to need satisfaction (Deci et al., 1999). Introjected regulation differs from external regulation in that the individual has internalized the potential punishment or reward to himself, such as self-worthiness or guilt/shame (Deci & Ryan, 2000). Introjected regulation is just physical assimilation but not recognized as part of the self, and thus is not a self-determined process and an unstable regulation form (Koestner et al., 1996). Identified regulation is one step further than introjected regulation as individuals recognize and assimilate with the values of the social environment (Deci & Ryan, 2000). This regulation involves a sense of self-determination, but it is still extrinsic. Low need satisfaction occurs because it is yet fully internalized and integrated.

Integrated regulation is the final type of internalization. The extrinsic motivation is fully internalized and integrated with the self. Individuals recognize the importance and meaning of extrinsic motivation and have identified with the extrinsic motivation and integrated it with other aspects of the self. At this stage, extrinsic motivation is fully internalized and self-determined and satisfies the need for autonomy, competence, and relatedness.

The four different types symbolize to the extent that those extrinsic motivations have been self-determined and facilitate the relatedness need satisfaction by socializing with others, the competence concerning the extent of internalization. The first three type of extrinsic motivation hinges on intrinsic motivation, whereas the last type - integrated regulation represents the highest level of internalization and therefore supports all three basic needs of autonomy, competence, and relatedness.

From the identity and social identity theory, we know that individuals acquire new identities for the self through the identification process. Researchers (Hogg & Terry, 2000) argued that individuals would initiate a process that propels them to conduct themselves in a way that is congruent with their role-based identities or social group-based identities, and this process is initiated after their identification with the role or the social group (Mael & Ashforth, 1992; Stryker, 1980). This is the fourth stage of the internalization process, which forms the self-concordance extrinsic motivation. Since the salience individuals' identities can be influenced by various contexts (roles or social groups) and their strength of identifications with the contexts, individuals' motivations and behaviors can be different in different contexts and under the same contexts, individuals' motivations and behaviors differ from each other (Callero, 1985).

When an individual identifies with a person (i.e., the CEO, the Chair, or other directors) or a social group (i.e., a company or a board), their identification could be either controlled (i.e., to impress other people or to gain rewards) or autonomous (i.e., based on the understanding and acceptance of the values) (Ellemers et al., 2002; Ellemers & Rijswijk, 1997; Gagné, 2009; Gagné et al., 2019). Thus, the identification process corresponds to regulation that results from either introjection or identification using SDT's definitions of the terms (Gagné & Deci, 2005). While this correlation does not distinguish internationalized extrinsic motivation and intrinsic motivation, the total motivation of the two is generated and increased in the process. Thus, it predicts that increased identities predict increased total motivation of an individual. In the context of the board, directors' motivation stems from the identities they acquired from the organization, the board, the CEO, among others.

## **2. HYPOTHESIS DEVELOPMENT**

Identity theory argues that individual directors gain identities from the roles they play in society (Stryker, 1980) whereas social identity theory argues that individual directors gain identities from the membership of the social groups they belong to or the categories they self-assigned to. Usually, social categories can be divided by criteria such as nationality, race, social class, occupation, gender, or religion. Categories exist in contrast to other categories that enable social comparison among various categories. Based on social identity theory, individuals tend to self-categorize themselves and other people into various social categories (Tajfel & Turner, 1985). Any individual can belong to multiple social categories at the same time, but they would not belong to two mutually exclusive categories (Abrams & Hogg, 1990).

Social groups are specified social categories defined as “two or more individuals who share a common social identification of themselves or which is nearly the same thing, perceive themselves to be members of the same social category” (Hogg & Terry, 2000). Thus, social identity is defined as “the individual’s knowledge that he belongs to certain social groups together with some emotional and value significance to him of the group membership”.

Social categorization serves two functions (Turner, 1985). First, it cognitively segments and orders social relationships, enabling individuals to define others based on a systematic framework. Stereotypes often come out of this first function since individuals tend to assign the prototypical characteristics of the category to the category's members. The second function of social categorization is social identification (Ashforth & Mael, 1989) which allows the individuals to allocate themselves into the categories and define themselves as a member of the categories. Thus, social identity is defined as "the perception of oneness with or belongingness to some human aggregate" (Ashforth & Mael, 1989).

Organization identification is a specific form of social identification since the individual's organization can be seen as a social category or a social group that embodies or reifies characteristics perceived to be prototypical of its members (Ashforth & Mael, 1989; Hogg & Turner, 1985). The individual's social identity may be derived from the organization they belong to and the department, team, class cohort, among others (Albert & Whetten, 1985). The directors from inside the company naturally identify with the company more than independent directors. The insider directors' identity derives not only from the board (as a social group) but also from the department, the work team, the lunch group, the class cohort that they belong to. The insider directors' social identification with the company is multifaceted and more complex than the independent directors.

### **Individual effects of director's motivations**

Thus, when the company encounters a negative event, such as the CEO's misconduct or corporate financial scandals, the insider directors' identification with the company cannot be reduced as easily as independent directors. The insider directors' multifaceted identification with the company (the board, the CEO, the department, the cohort, etc.) remains stable or less reduced

by a single negative event. While independent directors' identification with the company can be reduced to the extent that the identification is not strong enough for them to maintain their decision to serve on the board, the insider directors' identification remains strong enough for them to stay with the company and on the board.

Many factors or concerns can moderate or even override the identification process (Ashforth & Kreiner, 1999). Negative events can reframe corporate ideology and moderate the evaluations of those events. Thus, the identification process of the insider directors might be enhanced by the time period that they served with the company. Researchers also found that members of a relatively small group would generally identify more strongly with their group than members of a relatively large group (Ellemers & Rijswijk, 1997).

*Hypothesis 1: When the company encounters a negative event, the smaller the board's size, the lower the directors' likelihood of exit.*

Similarly, the board cohorts with the CEO would be a factor that impacts the director's identification with the company. When the CEO joins the board, there would be new directors that join the board at the same period, and they would be board cohorts that are all new to the board. Social identification impacts the socialization process (Turner, 2001). As the new directors join the board, they would be in contrast against existing directors on the board. The socialization process would allow the new directors to have a higher identification with the CEO that joins the board in the same period as other existing directors. When a negative event hits the company, the identification with the CEO of those cohort directors would be stronger for non-cohort directors.

From the early works of social psychologists (Tajfel, 1974; Tajfel et al., 1979) we know that individuals tend to pursue positive social identity. For an individual director, one of the

positive social identities comes from the directorship that they act as, and they tend to maintain this identity. A prestigious chair of the board or director joining the board would bring his/her own social capital to the board and increase the board's prestige and capability (Hillman et al., 2009). Hogg and Turner (1985) tested that interpersonal attraction (liking, trust) would enhance social group formation and the social identification process. Thus, when a prestigious individual sits on the board, the interpersonal attraction and the director's identification from the directorship increase.

*Hypothesis 2: When the company encounters a negative event, the directors who joined the board at the same time as the CEO will have a lower likelihood of exit.*

*Hypothesis 3: When the company encounters a negative event, directors on the board with a prestigious chair will have a lower likelihood of exit.*

Power is described as the capacity of an individual to impact other individuals to follow his/her own will (Finkelstein, 1992). Power is naturally multiple dimensioned. The power of the top managers comes from various aspects: structure power, ownership power, expert power and prestige power (Finkelstein, 1992). The CEO's influence on the board can also indicate the power of the CEO (Krause et al., 2017). The number of people that share similarities with the CEO would enhance the CEO power since they would tend to identify with the CEO and support the CEO's decision. When the director's social categorizes the CEO as an ingroup member, they will tend to trust the CEO's ability and defend the CEO's decision. This situation would contribute to the CEO's ownership power since the ownership power suggests how much the CEO can influence shareholdings.

The board acts as the proxy of the shareholders, and therefore, when the directors identify with the CEO and support the CEO's decision, the CEO has a high ownership power. Such that

when the CEO's power is high, the tendency for the directors to exit the board would be low. However, when the CEO's decision leads to the company's failure, their authority would be reduced, and the directors would reduce their identification and thus leave the company since the initial motivation has been reduced.

*Hypothesis 4: When a negative event hit the company, the company with high CEO power will have a higher likelihood of director exit.*

Self-determination theory argues that human beings must fulfill their basic psychological needs to maintain the status of wellbeing, and we argue that individual directors also must satisfy their basic psychological needs to maintain psychological health and wellbeing as human beings (Deci & Ryan, 1985, 2000). The three basic psychological needs are the need for autonomy, competence and relatedness, and the satisfaction of which increase autonomous motivation (in contrast to controlled motivation) and high-quality performance in the workplace (Deci et al., 2017).

When the individuals are motivated through the understanding of the worth and purpose of their jobs, the feeling of autonomy in carrying out the job and receiving clear feedback and support, their need for competence, autonomy, and relatedness are fulfilled, and they boost their autonomous motivation. When the individuals are motivated by contingent rewards or power dynamics, their needs for competence, autonomy, and relatedness are not satisfied, and thus, their motivation is controlled motivation, which would hinder long-term performance goals and have negative spillover on work engagement (Deci et al., 2017).

Monetary rewards are considered a type of external rewards that would not cause frustration of the need for autonomy. Researchers have found that when employees' basic psychological needs are not satisfied, they will get more frustrated and have higher turnover



intentions (Fernet et al., 2012). Thus, when the basic psychological needs of the individual directors are not satisfied, the turnover rate would be high. The empowerment of employees would increase the autonomous motivation of the employees and reduce the intention of turnover. Thus, when the individual directors have more board power, they feel empowered and motivated and reduce their intention to exit the board.

*Hypothesis 5: When the company encounters a negative event, directors with higher total compensation will have a higher likelihood of exit.*

*Hypothesis 6: When the company encounters a negative event, the company with high Board power has a lower likelihood of director exit.*

### 3. METHODS

#### Data Sources

The major database is BoardEx which provides a panel dataset for the board of directors' information. Researchers (Owen & Temesvary, 2018) have chosen BoardEx for research studying executives and directors, and the database includes more than 54,000 public traded companies. I collect directors' information such as compensation, educational background, employment, national origin, social connections from the BoardEx database.

Another major database is Compustat which provides abundant resources for the company's financial information. Compustat provides more than 35,000 public companies traded on a U.S. or Canadian exchange and with annual data from the 1950s. It provides information regarding its assets, debts, earnings, and other essential financial information. I collected financial statement data for the companies in our sample from Compustat.

The third dataset I used is the I/B/E/S (Institutional Brokers' Estimate System) database. I collected analysts' recommendations for stocks from this database and matched them with the hand-collected data from the All American Analyst Award in the Institutional Investor magazine. I eventually merged the four databases into one to test my hypothesis. The data covers the 2002-2019 period, with annual frequency. It is an unbalanced panel data consisting of just above 11,000 firm-year observations.

## Measures

**Dependent variables.** In this dissertation, I study the factors that would impact the directors' motivation. Motivation is the energization and direction of individual behaviors. The change of directors' motivation can be measured by changing their behaviors, i.e., the energization and direction of their behaviors. In the empirical setting of this dissertation, I measure directors' behaviors by measuring whether the directors stay on the board or exit the board. The change of motivation of the directors is operationalized as the likelihood of whether the directors would exit the board.

**Independent variables.** Negative events refer to events adversely impacting the company, including CEO wrongdoing (Schnatterly et al., 2018) litigation (Andrus et al., 2019). In this dissertation, I use star analysts downgrade as the negative events to create the empirical setting. Based on my hypotheses regarding the factors that may impact directors' motivation, I defined the following independent variables. *Board size* is defined as the total number of directors on the board. *CEO cohort director* is defined as directors who joined the board when the CEO was appointed. *A prestigious chair* is defined as the chair of the corporate board with a high level of prestige, which is indicated by their elite education background (Boivie, Graffin, & Gentry, 2016). *CEO power* is defined as the CEO's capabilities to influence others to pursue her or his own goals (Combs et al., 2007). It is operationalized as a composite index of whether the CEO holds the Chair position of the company, CEO tenure, and CEO ownership (Combs et al., 2007). *Monetary compensation* is defined as the salary and stock awarded to the directors. *Board power* is defined as the network size of the directors (Provan, 1980).

**Control variables.** Directors' decision to stay on or exit the board is impacted by the research interested independent variables listed above and other control variables. I included the following categories of control variables in my statistics model.

The first category is the common demographic characteristics of the board of directors. *Age* is defined as the years of age of the individual director. *Tenure* is defined as the individual director's years on the board. *Gender count* is defined as the count of female directors of the board. *Committee Membership* is defined as whether the director served in the audit or compensation committee on the board.

The second category is the firm & industry characteristics of the focal company. *Net income* is defined as the annual net income on the company's income statement. *ROA* is defined as the ratio of annual revenue from the income statement and total assets from the balance sheet. Market Value is defined as the total value of the company's outstanding shares on the financial report date. *HHI* (Herfindahl-Hirschman Index) is defined as the sum of squares of market shares of the industry, which measures market competition (Ali et al., 2009; Cantrell & Dickinson, 2019).

The third category only has one variable. *Non-star analysts downgrade* is defined as the downgrades issued by non-star analysts (Harrison et al., 2018). While the empirical setting is star analysts downgrade, I include non-star analysts downgrade to control for its potential impact to directors' decisions.

### **Statistical model**

In this dissertation, there are several reasons leading to the choice of survival analysis. First, the focal variable of interest is individual director tenure duration, the time between an individual director joining the board and the event of interest – director exit. Second, the values

of independent variables change across time, i.e., they are time-dependent predictors, e.g., age, family status. Thirdly, survival analysis has been applied to a wide range of management research regarding time-dependent events, including employee turnover research (Hom & Kinicki, 2001; Morita et al., 1993; Park et al., 2020). Survival analysis provides direct estimates of turnover effects robustly.

I choose a semi-parametric survival analysis model to analyze the data better to incorporate the covariates (Zhang, 2016). A non-parametric survival analysis decomposes the hazard or instantaneous risk into a non-parametric baseline and a relative risk, which describes how individual covariates affect risk (Cox, 1992). Thus, I chose the semi-parametric survival analysis model instead of the parametric survival analysis.

Because the dataset is comprised of Firm-Director-Year data entries, thus it is longitudinal in nature. Also, because the dataset included information on multiple data entries for the same individual as well as information on each board over time, it is not independent. I considered autocorrelation across years to be the most significant threat we faced; thus, I use Cox proportional hazard models to test the hypotheses. Hazard models are the most common method to treat turnover datasets (Harrison et al., 2018; Morita et al., 1993). This method allows the probability of turnover at one point in time to differ from the likelihood of another turnover at a different point in time. The distribution of survival times can be compared statistically across different units, and it allows me to measure the change in turnover probability among different directors.

## **Analysis**

An important assumption underlying Cox models is that the population hazard functions are proportional. The hazard of the event in any group is a constant multiple of the hazard in any

other events (Arthaud-Day et al., 2006). This assumption allows us to interpret the hazard ratios that as the value of the  $i^{th}$  covariate increases, the event hazard increases, and thus the length of survival decreases (Clark et al., 2003). To test this assumption, I use the scaled Schoenfeld residuals test to examine the association between residuals and time (in which a significant result indicates a poor fit (Grambsch & Therneau, 1994)). The global test was significant, indicating that the PH assumption was violated ( $X=92.61$ ,  $P<0.000$ ).

Following previous researchers' work, I found that the firm characteristics covariant displays nonproportionality, and thus I use a stratified model to remove the constraint of proportionality in different firms. It is allowed since the firm itself is not the primary interest of this investigation. The stratified Cox model shows a good fit ( $X=11.54$ ,  $P=0.71$ ). This allowed us to account for unobserved firm characteristics that may affect directors' decision to exit by estimating separate baseline hazard functions for each firm.

## 4. RESULTS

**Table 1**

### *Correlations*

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Director Exit	0.81	0.40															
2 Board Size	11.07	2.55	-0.01														
3 CEO Cohort	0.15	0.35	-0.02	0.00													
4 CEO Power	0.69	0.50	0.07	0.04	-0.07												
5 Board Power	8.71	1.33	-0.15	0.12	0.05	-0.03											
6 Total Compensation	4.68	1.18	-0.12	0.05	0.16	-0.02	0.06										
7 Board with Elite Chair	0.38	0.49	0.05	0.03	-0.03	-0.09	0.02	0.00									
8 Age	72.61	9.13	0.18	0.08	-0.07	0.11	-0.29	-0.23	0.01								
9 Gender Count	2.06	1.31	-0.24	0.43	0.04	0.02	0.25	0.15	0.01	-0.19							
10 Tenure	1.96	0.51	-0.18	0.13	0.01	-0.03	-0.23	0.19	0.04	0.00	0.25						
11 Committee Membership	0.51	0.50	-0.02	-0.12	-0.09	-0.02	0.03	-0.34	-0.03	0.06	-0.06	-0.01					
12 Net Income	1513.36	4064.77	-0.07	0.20	0.01	0.10	0.12	0.12	0.01	-0.02	0.21	0.17	-0.04				
13 ROA	0.04	0.10	-0.09	0.00	0.01	0.03	0.01	0.04	-0.01	-0.02	0.08	0.17	0.01	0.22			
14 Market Value	9.28	1.58	-0.22	0.37	0.06	0.07	0.21	0.22	0.03	-0.09	0.46	0.42	-0.05	0.52	0.33		
15 Non-Star Analyst Downgrade	0.52	0.28	0.05	0.00	0.04	0.07	-0.01	-0.04	-0.01	0.03	-0.02	-0.12	-0.02	-0.04	-0.06	-0.09	
16 HHI	0.15	0.16	0.00	-0.01	0.01	-0.03	-0.01	0.03	-0.02	-0.03	0.11	0.05	-0.01	-0.03	0.10	0.03	0.02

Table 1 provides summary statistics and correlations for all variables used in this study. I do not find any high correlations among the variables, so multicollinearity is unlikely to be an issue (Fox & Monette, 1992). Notably, on average, 19% of the directors did not exit the board after a downgrade was issued by the star analysts for their company. On average, 15% of the directors joined the company simultaneously as the CEO. On average, there are only two female directors in each corporate board, which is much lower than the proportion of the female population in the society.

**Table 2**

### *Model Results*

Variables	Model 1	Model 2	Model 3
Board Size		4.60*** (13.29)	1.53*** (8.24)
CEO Cohort		0.94* (-2.12)	-.04 (-0.29)
CEO Power		1.12** (3.10)	0.44** (3.04)
Board Power		0.85*** (-13.46)	-0.29*** (-4.47)
Total Compensation		0.97*** (-3.52)	-0.12*** (-3.61)
Board with Elite Chair		1.00 (1.45)	0.35* (2.28)
Age	1.01*** (8.17)	1.00** (2.82)	0.03*** (5.35)
Gender Count	0.70*** (-20.31)	0.69*** (-17.73)	-0.36*** (-5.33)
Tenure	3.99*** (18.84)	3.38*** (14.41)	-1.16*** (-5.47)
Committee Membership	0.94*** (-3.97)	0.96* (-2.60)	-0.22* (-2.49)
Net Income	1.00*** (5.29)	1.00* (-2.39)	0.00 (1.83)
ROA	1.11*** (5.29)	1.09*** (3.76)	0.02 (0.31)
Market Value	0.47*** (-25.20)	0.54*** (-18.58)	-2.29** (-2.59)
Non-Star Analyst Downgrade	0.95 (-1.04)	0.93 (-1.16)	0.16 (0.57)
HHI	0.45* (-2.38)	0.42* (-2.33)	0.41 (0.83)

t statistics in parentheses

\* p<0.05, \*\*p<0.01, \*\*\* p<0.001

Table 2 presents the models testing my hypotheses. Model 1 includes only the control variables. Model 2 adds the independent variables. Hypothesis 1 predicts that the board size is positively related to the likelihood of director exit. Generally, if the hazard ratio is larger than 1,



then the hazardous events have a bigger possibility (i.e., higher possibility of director exit), vice versa (Clark et al., 2003). The result in Model 2 supports this hypothesis, given a significant positive coefficient for *board size* (4.6,  $p < 0.001$ ). Hypothesis 2 predicts that if the director joined the company at the same term as the CEO, the likelihood of director exit decreases. The results in Model 2 supports this hypothesis, given a significant positive coefficient for the *CEO cohort* (0.94,  $p < 0.05$ ). Hypothesis 3 predicts that boards with a prestigious chair negatively correlate with the likelihood of director exit. The result in Model 2 did not support this hypothesis, given a nonsignificant positive coefficient for the *board with an elite chair* (1.08,  $p > 0.05$ ). Hypothesis 4 predicts that *CEO power* positively correlates with the likelihood of director exit. The results in Model 2 supports this hypothesis, given a significant positive coefficient for *CEO power* (1.12,  $p < 0.01$ ). Hypothesis 5 predicts that excessive monetary compensation of directors has a positive relationship with the likelihood of director exit. The result in Model 2 does not support the hypothesis but suggests the opposite direction, given a significant positive coefficient for *total compensation* (0.97,  $p < 0.001$ ). Hypothesis 6 predicts that the *Board power* has a positive relationship with the likelihood of director exit. The result in Model 2 supports the hypothesis, given a significant positive coefficient for the *Board Power* (0.85,  $p < 0.001$ ).

### **Robustness**

I adopted robust standard errors for all my models. Previous researchers have found that robust standard errors are meaningful in controlling for heteroskedasticity, mis-specified cox models, smaller sample size, or controlling for omitted covariates (Arellano & M, 1987; Hoechle, 2007; Lin & Wei, 1989; Stock & Watson, 2008).

I also tested the hypotheses in logistic regression, the results of which are shown in Model 3. Hypothesis 1 is supported, given that the positive coefficient of *Board Size* is

significant (1.53,  $p < 0.001$ ). Hypothesis 2 is not supported, given that the negative coefficient of *CEO Cohort* is not significant (-0.04,  $p = 0.768$ ). Hypothesis 3 is not supported, given that the positive coefficient of *Board with Elite Chair* is significant (0.35,  $p < 0.01$ ), which indicates the opposite prediction. Hypothesis 4 is supported, given the coefficient for *CEO Power* is positive and significant (0.4,  $p < 0.01$ ). Hypothesis 5 is not supported, given the coefficient for *Total Compensation* is negative and significant (-0.12,  $p < 0.001$ ), which indicates the opposite prediction. Hypothesis 6 is supported, given the coefficient for *Board Power* is negative and significant (-0.29,  $p < 0.001$ ). The results are largely consistent with the survival analysis results except for Hypothesis 2.

## 5. DISCUSSION

The goal of this dissertation was to offer a theoretical framework that explains the directors' motivation. By using the intrinsic motivation framework, I propose that I could integrate the identity theories and self-determination theory used by previous researchers to offer a comprehensive theoretical framework that can explain directors' motivation. I also, in this dissertation, try to identify factors that would impact the directors' motivation by examining the reactions of directors of large companies facing negative recommendations by star analysts. The results of my analyses supported most of the hypotheses.

Previous researchers' findings (Hillman & Dalziel, 2003) suggest that various directors have different functional experiences, KSAs, and social capitals. Thus, a larger board size would increase the resources and the advising capabilities that the directors provide for the firm. However, the larger size of the board, the less cohesive or related the directors are to each other. That would reduce the director's identification of the board and other directors, thus resulting in a lower overall motivation of the directors. My dissertation's finding suggests that directors in a small size board may have stronger motivation to stay on the board.

In the meantime, researchers have studied the CEO's influence on selecting directors (Krause, Filatotchev, et al., 2016) and its potential consequences for board vigilance. My dissertation's finding suggests that those directors who join the board simultaneously as the CEO, i.e., the *CEO Cohort* directors, have higher motivation to serve on the board. CEO's cohort directors are more likely to stay on board when the company goes through difficult times, providing consistency and stability to the firm. The empirical findings in this dissertation support this argument. However, for firms with a bossy CEO, the directors may choose to leave the company since they experienced less autonomy when serving on the board. The directors also identify less with the company, the board, or the CEO because of the CEO's behaviors in the past. Thus, the directors' motivation to stay on board during difficulties is reduced. In another scenario, for firms with a strong board power, the directors experienced more autonomy and capability, which led to higher intrinsic motivation. Thus, those directors will stay on the board to continue offering their support to the company during difficult times.

I predict that a board with an elite chair has a lower likelihood of exit; however, the opposite of that prediction is supported in the empirical. I further examined my data and found that 78.76% of the elite chairs exited the firm. This may explain the opposite findings. Since the directors look up to the elite chairs (Krause, Semadeni, et al., 2016; McNulty et al., 2011; Withers & Fitza, 2017), thus when the elite chairs leave the company, directors would also leave the company. These turnovers could result in a positive relationship between the board with elite chairs and director exit.

### **Contribution to Theory and Research**

This dissertation extends theory in the corporate governance literature in several ways. To start, the integration of SDT and identity theories in the context of the director labor market

extends the application of motivation theory. The dissertation offers a basic framework that includes internalized extrinsic motivation and intrinsic motivation originating from an individual's identities and from the fulfillment of basic psychological needs respectively. Current motivation theory posits that an individual's identity leads to both extrinsic and intrinsic motivation (Gagné & Deci, 2005; Landry et al., 2017). This dissertation's findings supported the theory that an individual's identity impacts one's internalized extrinsic motivation and intrinsic motivation, which determines the energy and direction of one's behaviors. This dissertation's findings suggest that a process determines and interprets the relationship between one's identity and one's behaviors.

Secondly, this dissertation extends theory in the corporate governance literature. Existing literature has mixed findings regarding the impacts of the board structure (Certo et al., 2006). The findings in this dissertation suggest that the board structure makes a difference in the directors' motivation and behaviors. Thirdly, this dissertation contributes to the corporate governance literature by offering insights regarding the selection and retention of employees on the board level. The existing literature on the selection of directors discussed the impact of social capital and CEO (A. A. Cannella et al., 2015; Krause et al., 2017; Withers et al., 2012). The findings in this dissertation provide the support that CEO's influence on director selection might generate positive organizational outcomes.

Beyond the contributions of theorizing, the findings in this dissertation make several empirical contributions to the management research. First, this dissertation provides one of the first examinations of how internal factors affect director exit and counter the influences of external factors. Building on previous findings that star analysts' downgrades and reputation maintenance lead to director exit (Harrison et al., 2018), I examined that directors' identities and

fulfillment of basic psychological needs can influence the directors to remain on board and continue offer service to the company. Second, I provide an individual-level explanation of the relationship between board size and corporate performance by explaining how board size would impact directors' motivations and behaviors. Thirdly, I offered a positive outcome of the CEO's influence in the director's selection besides the current explanation of information asymmetry (Krause, Semadeni, et al., 2016). Fourth, I provided an alternative explanation other than reputation maintenance in directors' exit behaviors (Boivie et al., 2012; Boivie, Graffin, & Gentry, 2016; Harrison et al., 2018).

### **Limitations and Directions for Future Research**

Despite the contributions of this dissertation, it also has several limitations that provide opportunities for future research. First, as with much of the prior work on boards, this dissertation is inferential (Withers, Hillman, & Cannella, 2012). To improve the director research's effectiveness, the proportions of internalized extrinsic and intrinsic motivation must be examined through experiments using primary data. In particular, primary studies would help further the understanding of the influences of identities and fulfillment of basic psychological needs, respectively.

Second, this dissertation examines the scenario of star analyst downgrades. However, most of the daily operations of the companies are without severe negative impacts. It is necessary to examine whether the stronger motivation of the directors would lead to other organizational outcomes, such as increased board effectiveness or better financial performance of the company(Boivie, Bednar, et al., 2016; Boivie, Graffin, Oliver, et al., 2016; Krause et al., 2017; Owen & Temesvary, 2018).

Third, broadly speaking, in this dissertation, how the subgroups inside the board impact the motivation of individual directors has been compressed (Kolev et al., 2019). Existing literature argued that directors with certain committee memberships are more vigilant (Kolev et al., 2019). Future research can explore how social connections and subgroups inside the board can influence the motivation of individual directors and corporate performance.

Fourth, due to the empirical setting of this dissertation, I did not discuss the conflict of different motivations (Ramarajan et al., 2017) or the salience of certain motivations. Existing motivation literature argues that the salience of motivation might impact individual behaviors in the organization (Kanfer et al., 2017). Future research can explore how directors compromise on different motivations and how certain motivations may become salient under different circumstances.

Last, future research can explore how the motivation of individual directors evolves from joining the board to exiting the board. As the career and life experience and personal development of individual directors change, the motivation of individual directors changes as well (Kanfer, 1990; Kanfer & Ackerman, 2004). Studying this phenomenon will help advance the understanding of director selection and board effectiveness.

## **Conclusion**

In conclusion, the motivation of individual directors and their impacts have been a focus of considerable scholarly attention in the management literature. While this dissertation enhances understanding this complex phenomenon, there remains a noticeable lack of synthesis across different motivation theories. I attempt to bridge the gap among motivation theories by offering a comprehensive framework synthesizing SDT and identity theories. I believe that a more integrative framework can advance the knowledge of this increasingly prevalent phenomenon. I

hope that this dissertation will motivate additional research in the motivation of individual directors.



## **List of References**

## References

- Abrams, D., & Hogg, M. A. (1990). Social Identification, Self-Categorization and Social Influence. *European Review of Social Psychology, 1*(1), 195–228. <https://doi.org/10.1080/14792779108401862>
- Albert, S., & Whetten, D. A. (1985). Organizational identity. *Research in Organizational Behavior, 7*, 263–295.
- Ali, A., Klasa, S., & Yeung, E. (2009). The Limitations of Industry Concentration Measures Constructed with Compustat Data: Implications for Finance Research. *The Review of Financial Studies, 22*(10), 3839–3871. <https://doi.org/10.1093/RFS/HHN103>
- Andrus, J. L., Withers, M. C., Courtright, S. H., & Boivie, S. (2019). Go your own way: Exploring the causes of top executive turnover. *Strategic Management Journal, 40*(7), 1151–1168. <https://doi.org/10.1002/smj.3020>
- Angyal, A. (1941). *Foundations for a science of personality*. New York: The Commonwealth Fund; London: Oxford University Press.
- Arellano, & M. (1987). Computing Robust Standard Errors for Within-Groups Estimators. *Oxford Bulletin of Economics and Statistics, 49*(4), 431–434. <https://ideas.repec.org/a/bla/obuest/v49y1987i4p431-34.html>
- Arthaud-Day, M. L., Certo, S. T., Dalton, C. M., & Dalton, D. R. (2006). A Changing of the Guard: Executive and Director Turnover Following Corporate Financial Restatements. *Academy of Management Journal, 49*(6), 1119–1136. <https://doi.org/10.5465/amj.2006.23478165>
- Ashforth, B. E., Harrison, S. H., & Corley, K. G. (2008). Identification in organizations: An examination of four fundamental questions. *Journal of Management, 34*(3), 325–374. <https://doi.org/10.1177/0149206308316059>

- Ashforth, B. E., & Kreiner, G. E. (1999). "How Can You Do It?": Dirty Work and the Challenge of Constructing a Positive Identity. *Academy of Management Review*, 24(3), 413–434.  
<https://doi.org/10.5465/amr.1999.2202129>
- Ashforth, B. E., & Mael, F. (1989). Social Identity Theory and the Organization. *The Academy of Management Review*, 14(1), 20. <https://doi.org/10.2307/258189>
- Assor, A., Roth, G., & Deci, E. L. (2004). The Emotional Costs of Parents' Conditional Regard: A Self-Determination Theory Analysis. *Journal of Personality*, 72(1), 47–88.  
<https://doi.org/10.1111/j.0022-3506.2004.00256.x>
- Balmer, J. M. T., & Greyser, S. A. (2002). Managing the multiple identities of the corporation. *California Management Review*, 44(3), 72–86.
- Berlyne, D. E., & Crozier, J. B. (1971). Effects of complexity and prechoice stimulation on exploratory choice. *Perception & Psychophysics*, 10(4), 242–246.
- Blasi, A. (1976). Vico, developmental psychology, and human nature. *Social Research*, 672–697.
- Boivie, S., Bednar, M. K., Aguilera, R. v., & Andrus, J. L. (2016). Are Boards Designed to Fail? The Implausibility of Effective Board Monitoring. *The Academy of Management Annals*, 10(1), 319–407. <https://doi.org/10.1080/19416520.2016.1120957>
- Boivie, S., Graffin, S. D., & Gentry, R. J. (2016). Understanding the Direction, Magnitude, and Joint Effects of Reputation When Multiple Actors' Reputations Collide. *Academy of Management Journal*, 59(1), 188–206. <https://doi.org/10.5465/amj.2014.0521>
- Boivie, S., Graffin, S. D., Oliver, A. G., & Withers, M. C. (2016). Come Aboard! Exploring the Effects of Directorships in the Executive Labor Market. *Academy of Management Journal*, 59(5), 1681–1706.  
<https://doi.org/10.5465/amj.2014.0840>
- Boivie, S., Graffin, S. D., & Pollock, T. G. (2012). Time for Me to Fly: Predicting Director Exit at Large Firms. *Academy of Management Journal*, 55(6), 1334–1359. <https://doi.org/10.5465/amj.2010.1083>
- Butler, R. A. (1953). Discrimination learning by rhesus monkeys to visual-exploration motivation. *Journal of Comparative and Physiological Psychology*, 46(2), 95.

- Callero, P. L. (1985). Role-identity salience. *Social Psychology Quarterly*, 203–215.
- Cannella, A. A., Jones, C. D., & Withers, M. C. (2015). Family- versus Lone-Founder-Controlled Public Corporations: Social Identity Theory and Boards of Directors. *Academy of Management Journal*, 58(2), 436–459. <https://doi.org/10.5465/amj.2012.0045>
- Cannella, B., Finkelstein, S., & Hambrick, D. C. (2008). *Strategic Leadership*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195162073.001.0001>
- Cantrell, B. W., & Dickinson, V. (2019). Conditional Life Cycle: An Examination of Operating Performance for Leaders and Laggards. *Https://Doi.Org/10.1287/Mnsc.2018.3209*, 66(1), 433–451. <https://doi.org/10.1287/MNSC.2018.3209>
- Certo, S. T. (2003). Influencing Initial Public Offering Investors with Prestige: Signaling with Board Structures. *The Academy of Management Review*, 28(3), 432. <https://doi.org/10.2307/30040731>
- Certo, S. T., Lester, R. H., Dalton, C. M., & Dalton, D. R. (2006). Top management teams, strategy and financial performance: A meta-analytic examination. *Journal of Management Studies*, 43(4), 813–839. <https://doi.org/10.1111/j.1467-6486.2006.00612.x>
- Clark, T. G., Bradburn, M. J., Love, S. B., & Altman, D. G. (2003). Survival analysis part IV: further concepts and methods in survival analysis. *British Journal of Cancer*, 89(5), 781–786. <https://doi.org/10.1038/SJ.BJC.6601117>
- Coffman, C. D., & Sunny, S. A. (2021). Reconceptualizing Necessity and Opportunity Entrepreneurship: A Needs-Based View of Entrepreneurial Motivation. *Https://Doi.Org/10.5465/Amr.2019.0361*, 46(4), 823–825. <https://doi.org/10.5465/AMR.2019.0361>
- Combs, J. G., Ketchen, D. J., Perryman, A. A., & Donahue, M. S. (2007). The Moderating Effect of CEO Power on the Board Composition-Firm Performance Relationship. *Journal of Management Studies*, 44(8), 1299–1323. <https://doi.org/10.1111/j.1467-6486.2007.00708.x>
- Cox, D. R. (1992). *Regression Models and Life-Tables*. 527–541. [https://doi.org/10.1007/978-1-4612-4380-9\\_37](https://doi.org/10.1007/978-1-4612-4380-9_37)

- Daily, C. M., Dalton, D. R., & Cannella, A. A. (2003). Corporate Governance: Decades of Dialogue and Data. *Academy of Management Review*, 28(3), 371–382. <https://doi.org/10.5465/amr.2003.10196703>
- Dalton, D. R., Daily, C. M., Certo, S. T., & Roengpitya, R. (2003). Meta-Analyses of Financial Performance and Equity: Fusion or Confusion? *Academy of Management Journal*, 46(1), 13–26. <https://doi.org/10.5465/30040673>
- Dalton, D. R., Daily, C. M., Ellstrand, A. E., & Johnson, J. L. (1998). Meta-analytic reviews of board composition, leadership structure, and financial performance. *Strategic Management Journal*, 19(3), 269–290. [https://doi.org/10.1002/\(SICI\)1097-0266\(199803\)19:3<269::AID-SMJ950>3.0.CO;2-K](https://doi.org/10.1002/(SICI)1097-0266(199803)19:3<269::AID-SMJ950>3.0.CO;2-K)
- Decharms, R., & Carpenter, V. (1968). Measuring motivation in culturally disadvantaged school children. *The Journal of Experimental Education*, 37(1), 31–41.
- Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. *Journal of Personality and Social Psychology*, 18(1), 105–115. <https://doi.org/10.1037/h0030644>
- Deci, E. L., & Cascio, W. F. (1972). Changes in intrinsic motivation as a function of negative feedback and threats. *Paper Presented at Eastern Psychological Association Meeting in Boston, Massachusetts*, 1–24. <https://files.eric.ed.gov/fulltext/ED063558.pdf>
- Deci, E. L., Cascio, W. F., & Krusell, J. (1975). Cognitive evaluation theory and some comments on the Calder and Staw critique. *Journal of Personality and Social Psychology*, 31(1), 81–85. <https://doi.org/10.1037/h0076168>
- Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin*, 125(6), 627.
- Deci, E. L., Olafsen, A. H., & Ryan, R. M. (2017). Self-Determination Theory in Work Organizations: The State of a Science. *Annual Review of Organizational Psychology and Organizational Behavior*, 4(1), 19–43. <https://doi.org/10.1146/annurev-orgpsych-032516-113108>
- Deci, E. L., & Ryan, R. M. (1980). The empirical exploration of intrinsic motivational processes. In *Advances in experimental social psychology* (Vol. 13, pp. 39–80). Elsevier.

- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, *19*(2), 109–134.
- Deci, E. L., & Ryan, R. M. (1995). Human autonomy. In *Efficacy, agency, and self-esteem* (pp. 31–49). Springer.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, *11*(4), 227–268.
- Dember, W. N., & Earl, R. W. (1957). Analysis of exploratory, manipulatory, and curiosity behaviors. *Psychological Review*, *64*(2), 91.
- Dittmar, H. (2004). Are you what you have? *The Psychologist*.
- Duriez, B., Vansteenkiste, M., Soenens, B., & De Witte, H. (2007). The social costs of extrinsic relative to intrinsic goal pursuits: Their relation with social dominance and racial and ethnic prejudice. *Journal of Personality*, *75*(4), 757–782. <https://doi.org/10.1111/j.1467-6494.2007.00456.x>
- Dutton, J. E., Dukerich, J. M., & Harquail, C. V. (1994). Organizational Images and Member Identification. *Administrative Science Quarterly*, *39*(2), 239–263.
- Ellemers, N., & Rijswijk, W. van. (1997). Identity Needs Versus Social Opportunities: The Use of Group-Level and Individual-Level Identity Management Strategies. *Social Psychology Quarterly*, *60*(1), 52. <https://doi.org/10.2307/2787011>
- Ellemers, N., Spears, R., & Doosje, B. (2002). Self and Social Identity. *Annual Review of Psychology*, *53*(1), 161–186. <https://doi.org/10.1146/annurev.psych.53.100901.135228>
- Fama, E. F., & Jensen, M. C. (1983). Separation of Ownership and Control. *Journal of Law & Economics*, *26*(2), 301–325. <https://doi.org/10.2139/ssrn.94034>
- Fernet, C., Guay, F., Senécal, C., & Austin, S. (2012). Predicting intraindividual changes in teacher burnout: The role of perceived school environment and motivational factors. *Teaching and Teacher Education*, *28*(4), 514–525. <https://doi.org/10.1016/j.tate.2011.11.013>
- Festinger, L. (1962). *A theory of cognitive dissonance* (Vol. 2). Stanford university press.

- Finkelstein, S. (1992). Power in Top Management Teams: Dimensions, Measurement, and Validation. *Academy of Management Journal*, 35(3), 505–538. <https://doi.org/10.5465/256485>
- Fiske, D. W., & Maddi, S. R. (1961). *Functions of varied experience*.
- Foreman, P., & Whetten, D. A. (2002). Members' identification with multiple-identity organizations. *Organization Science*, 13(6), 618–635. <https://doi.org/10.1287/orsc.13.6.618.493>
- Fox, J., & Monette, G. (1992). Generalized collinearity diagnostics. *Journal of the American Statistical Association*, 87(417), 178–183. <https://doi.org/10.1080/01621459.1992.10475190>
- Gagné, M. (2009). A model of knowledge-sharing motivation. *Human Resource Management*, 48(4), 571–589. <https://doi.org/10.1002/hrm.20298>
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331–362. <https://doi.org/10.1002/job.322>
- Gagné, M., Tian, A. W., Soo, C., Zhang, B., Ho, K. S. B., & Hosszu, K. (2019). Different motivations for knowledge sharing and hiding: The role of motivating work design. *Journal of Organizational Behavior*, 40(7), 783–799. <https://doi.org/10.1002/job.2364>
- Gevurtz, F. A. (2004). The Historical and Political Origins of the Corporate Board of Directors. *SSRN Electronic Journal*, 33(1). <https://doi.org/10.2139/ssrn.546296>
- Glass, D. C., & Singer, J. E. (1972). Behavioral aftereffects of unpredictable and uncontrollable aversive events: although subjects were able to adapt to loud noise and other stressors in laboratory experiments, they clearly demonstrated adverse aftereffects. *American Scientist*, 60(4), 457–465.
- Golden-Biddle, K., & Rao, H. (1997). Breaches in the Boardroom: Organizational Identity and Conflicts of Commitment in a Nonprofit Organization. *Organization Science*, 8(6), 593–611. <https://doi.org/10.1287/orsc.8.6.593>
- Grambsch, P. M., & Therneau, T. M. (1994). Proportional hazards tests and diagnostics based on weighted residuals. *Biometrika*, 81(3), 515–526. <https://doi.org/10.1093/BIOMET/81.3.515>

- Grant, A. M., & Berry, J. W. (2011). The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Academy of Management Journal*, 54(1), 73–96.
- Gross, E., & Stone, G. P. (1964). Embarrassment and the analysis of role requirements. *American Journal of Sociology*, 70(1), 1–15.
- Hambrick, D. C., & Jackson, E. M. (2000). Outside Directors with a Stake: The Linchpin in Improving Governance. *California Management Review*, 42(4), 108–127. <https://doi.org/10.2307/41166056>
- Hambrick, D. C., & Mason, P. A. (1984). Upper Echelons: The Organization as a Reflection of Its Top Managers. *The Academy of Management Review*, 9(2), 193. <https://doi.org/10.2307/258434>
- Hambrick, D. C., Werder, A. v., & Zajac, E. J. (2008). New Directions in Corporate Governance Research. *Organization Science*, 19(3), 381–385. <https://doi.org/10.1287/orsc.1080.0361>
- Harlow, H. F. (1950). Learning and satiation of response in intrinsically motivated complex puzzle performance by monkeys. *Journal of Comparative and Physiological Psychology*, 43(4), 289.
- Harlow, H. F. (1953). Mice, monkeys, men, and motives. *Psychological Review*, 60(1), 23.
- Harrison, J. S., Boivie, S., Sharp, N. Y., & Gentry, R. J. (2018). Saving face: How exit in response to negative press and star analyst downgrades reflects reputation maintenance by directors. *Academy of Management Journal*, 61(3), 1131–1157. <https://doi.org/10.5465/amj.2016.0471>
- Haynes, K. T., & Hillman, A. (2010). The effect of board capital and CEO power on strategic change. *Strategic Management Journal*, 31(11), 1145–1163. <https://doi.org/10.1002/smj.859>
- Hebb, D. O. (1955). Drives and the CNS (conceptual nervous system). *Psychological Review*, 62(4), 243.
- Heider, F. (1958). *The psychology of interpersonal relations*. John Wiley & Sons Inc.  
<https://doi.org/10.1037/10628-000>
- Hillman, A. J., & Dalziel, T. (2003). Boards of directors and firm performance: Integrating agency and resource dependence perspectives. *Academy of Management Review*, 28(3), 383–396.  
<https://doi.org/10.5465/AMR.2003.10196729>



- Hillman, A. J., Nicholson, G., & Shropshire, C. (2008). Directors' multiple identities, identification, and board monitoring and resource provision. *Organization Science*, *19*(3), 441–456.  
<https://doi.org/10.1287/orsc.1080.0355>
- Hillman, A. J., Withers, M. C., & Collins, B. J. (2009). Resource dependence theory: A review. *Journal of Management*, *35*(6), 1404–1427. <https://doi.org/10.1177/0149206309343469>
- Hoechle, D. (2007). Robust standard errors for panel regressions with cross-sectional dependence. *The Stata Journal*, *7*(3), 281–312.
- Hoelter, J. W. (1985). The structure of self-conception: Conceptualization and measurement. *Journal of Personality and Social Psychology*, *49*(5), 1392.
- Hogg, M. A., & Terry, D. I. (2000). Social Identity and Self-Categorization Processes in Organizational Contexts. *Academy of Management Review*, *25*(1), 121–140.  
<https://doi.org/10.5465/amr.2000.2791606>
- Hogg, M. A., & Turner, J. C. (1985). Interpersonal attraction, social identification and psychological group formation. *European Journal of Social Psychology*, *15*(1), 51–66.  
<https://doi.org/10.1002/ejsp.2420150105>
- Hom, P. W., & Kinicki, A. J. (2001). Toward a Greater Understanding of How Dissatisfaction Drives Employee Turnover. *Academy of Management Journal*, *44*(5), 975–987.  
<https://doi.org/10.5465/3069441>
- Hull, C. L. (1943). *Principles of behavior* (Vol. 422). Appleton-century-crofts New York.
- Isaac, W. (1962). Evidence for a sensory drive in monkeys. *Psychological Reports*, *11*(1), 175–181.
- James, W. (1890). The perception of reality. *Principles of Psychology*, *2*, 283–324.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)

- Johnson, M. D., Morgeson, F. P., Ilgen, D. R., Meyer, C. J., & Lloyd, J. W. (2006). Multiple professional identities: examining differences in identification across work-related targets. *Journal of Applied Psychology, 91*(2), 498.
- Johnsson, J. (2021, February 17). *Boeing's Board Shakeup Gains Steam as Two More Directors Retire - BNN Bloomberg*. Bloomberg News. <https://www.bnnbloomberg.ca/boeing-s-board-shakeup-gains-steam-as-two-more-directors-retire-1.1565048>
- Joussemet, M., Landry, R., & Koestner, R. (2008). A self-determination theory perspective on parenting. *Canadian Psychology/Psychologie Canadienne, 49*(3), 194.
- Kanfer, R. (1990). Motivation theory and industrial and organizational psychology. *Handbook of Industrial and Organizational Psychology, 1*(2), 75–130.
- Kanfer, R., & Ackerman, P. L. (2004). Aging, adult development, and work motivation. *Academy of Management Review, 29*(3), 440–458.
- Kanfer, R., Frese, M., & Johnson, R. E. (2017). Motivation related to work: A century of progress. *Journal of Applied Psychology, 102*(3), 338–355. <https://doi.org/10.1037/apl0000133>
- Kasser, T. (2002). Sketches for a self-determination theory of values. *Handbook of Self-Determination Research, 123*, 40.
- Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin, 22*(3), 280–287.
- Kegan, D. L., & Rubenstein, A. H. (1972). Measures of trust and openness. *Comparative Group Studies, 3*(2), 179–201.
- Knee, C. R., & Neighbors, C. (2002). Self-determination, perception of peer pressure, and drinking among college students 1. *Journal of Applied Social Psychology, 32*(3), 522–543.
- Kochhar, R., & Hitt, M. A. (1998). Linking corporate strategy to capital structure: diversification strategy, type and source of financing. *Strategic Management Journal, 19*(6), 601–610.

- Koestner, R., Vallerand, R. J., Losier, G. F., & Carducci, D. (1996). Identified and Introjected Forms of Political Internalization: Extending Self-Determination Theory. *Journal of Personality and Social Psychology, 70*(5), 1025–1036. <https://doi.org/10.1037/0022-3514.70.5.1025>
- Kolev, K. D., Wangrow, D. B., Barker, V. L., & Schepker, D. J. (2019). Board Committees in Corporate Governance: A Cross-Disciplinary Review and Agenda for the Future. *Journal of Management Studies, 56*(6), 1138–1193. <https://doi.org/10.1111/joms.12444>
- Krause, R., Filatotchev, I., & Bruton, G. D. (2016). When in Rome, look like caesar? investigating the link between demand-side cultural power distance and CEO power. *Academy of Management Journal, 59*(4), 1361–1384. <https://doi.org/10.5465/amj.2014.0532>
- Krause, R., Semadeni, M., & Withers, M. C. (2016). That special someone: When the board views its chair as a resource. *Strategic Management Journal, 37*(9), 1990–2002. <https://doi.org/10.1002/smj.2444>
- Krause, R., Withers, M. C., & Semadeni, M. (2017). Compromise on the board: Investigating the antecedents and consequences of lead independent director appointment. *Academy of Management Journal, 60*(6), 2239–2265. <https://doi.org/10.5465/amj.2015.0852>
- Kreiner, G. E., Hollensbe, E. C., & Sheep, M. L. (2006). On the edge of identity: Boundary dynamics at the interface of individual and organizational identities. *Human Relations, 59*(10), 1315–1341. <https://doi.org/10.1177/0018726706071525>
- Landry, A. T., Gagné, M., Forest, J., Guerrero, S., Séguin, M., & Papachristopoulos, K. (2017). The relation between financial incentives, motivation, and performance: An integrative SDT-based investigation. *Journal of Personnel Psychology, 16*(2), 61–76. <https://doi.org/10.1027/1866-5888/a000182>
- Langer, E. J., & Saegert, S. (1977). Crowding and cognitive control. *Journal of Personality and Social Psychology, 35*(3), 175.
- Lanzetta, J. T. (1971). The motivational properties of uncertainty. *Intrinsic Motivation: A New Direction in Education, 134*, 147.

- Leuba, C. (1955). Toward some integration of learning theories: The concept of optimal stimulation. *Psychological Reports, 1*(1), 27–33.
- Lewin, K. (1951). Intention, will and need. In *Organization and pathology of thought: Selected sources*. (pp. 95–153). Columbia University Press. <https://doi.org/10.1037/10584-005>
- Lin, D. Y., & Wei, L. J. (1989). The robust inference for the cox proportional hazards model. *Journal of the American Statistical Association, 84*(408), 1074–1078. <https://doi.org/10.1080/01621459.1989.10478874>
- Loevinger, J. (1966). The meaning and measurement of ego development. *American Psychologist, 21*(3), 195.
- Mael, F., & Ashforth, B. E. (1992). Alumni and their alma mater: A partial test of the reformulated model of organizational identification. *Journal of Organizational Behavior, 13*(2), 103–123. <https://doi.org/10.1002/job.4030130202>
- McCall George, J., & Simmons, J. L. (1978). Identities and interactions. *New York*.
- McClelland, D. C. (1965). Toward a theory of motive acquisition. *American Psychologist, 20*(5), 321.
- McHoskey, J. W. (1999). Machiavellianism, intrinsic versus extrinsic goals, and social interest: A self-determination theory analysis. *Motivation and Emotion, 23*(4), 267–283.
- McNulty, T., & Pettigrew, A. (1996). The Contribution, Power and Influence of Part-time Board Members. *Corporate Governance: An International Review, 4*(3), 160–179. <https://doi.org/10.1111/j.1467-8683.1996.tb00145.x>
- McNulty, T., Pettigrew, A., Jobome, G., & Morris, C. (2011). The role, power and influence of company chairs. *Journal of Management and Governance, 15*(1), 91–121. <https://doi.org/10.1007/s10997-009-9119-4>
- Milbourn, T. T. (2003). CEO reputation and stock-based compensation. *Journal of Financial Economics, 68*(2), 233–262. [https://doi.org/10.1016/S0304-405X\(03\)00066-7](https://doi.org/10.1016/S0304-405X(03)00066-7)
- Montgomery, K. C. (1954). The role of the exploratory drive in learning. *Journal of Comparative and Physiological Psychology, 47*(1), 60–64. <https://doi.org/10.1037/h0054833>

- Morita, J. G., Lee, T. W., & Mowday, R. T. (1993). The Regression-Analog to Survival Analysis: A Selected Application to Turnover Research. *Academy of Management Journal*, 36(6), 1430–1464.  
<https://doi.org/10.5465/256818>
- Murnieks, C. Y., Klotz, A. C., & Shepherd, D. A. (2020). Entrepreneurial motivation: A review of the literature and an agenda for future research. *Journal of Organizational Behavior*, 41(2), 115–143.  
<https://doi.org/10.1002/job.2374>
- Myers, A. K., & Miller, N. E. (1954). Failure to find a learned drive based on hunger; evidence for learning motivated by "exploration.". *Journal of Comparative and Physiological Psychology*, 47(6), 428.
- Niemiec, C. P., Ryan, R. M., & Deci, E. L. (2009). The path taken: Consequences of attaining intrinsic and extrinsic aspirations in post-college life. *Journal of Research in Personality*, 43(3), 291–306.
- Owen, A. L., & Temesvary, J. (2018). The performance effects of gender diversity on bank boards. *Journal of Banking & Finance*, 90, 50–63. <https://doi.org/10.1016/J.JBANKFIN.2018.02.015>
- Park, U. D., Boeker, W., & Gomulya, D. (2020). Political ideology of the board and CEO dismissal following financial misconduct. *Strategic Management Journal*, 41(1), 108–123.  
<https://doi.org/10.1002/smj.3088>
- Pettigrew, A. M. (1992). The character and significance of strategy process research. *Strategic Management Journal*, 13(S2), 5–16.
- Pfeffer, J., & Salancik, G. R. (1978). *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper & Row.
- Pollock, T. G., Chen, G., Jackson, E. M., & Hambrick, D. C. (2010). How much prestige is enough? Assessing the value of multiple types of high-status affiliates for young firms. *Journal of Business Venturing*, 25(1), 6–23.
- Provan, K. G. (1980). Board power and organizational effectiveness among human service agencies. *Academy of Management Journal*. *Academy of Management*, 23(2), 221–236.  
<https://doi.org/10.2307/255428>

- Ramarajan, L. (2014). Past, Present and Future Research on Multiple Identities: Toward an Intrapersonal Network Approach. *Academy of Management Annals*, 8(1), 589–659.  
<https://doi.org/10.1080/19416520.2014.912379>
- Ramarajan, L., Rothbard, N. P., & Wilk, S. L. (2017). Discordant vs. Harmonious selves: The effects of identity conflict and enhancement on sales performance in employee-customer interactions. *Academy of Management Journal*, 60(6), 2208–2238. <https://doi.org/10.5465/amj.2014.1142>
- Reeve, J., & Deci, E. L. (1996). Elements of the competitive situation that affect intrinsic motivation. *Personality and Social Psychology Bulletin*, 22(1), 24–33.  
<https://doi.org/10.1177/0146167296221003>
- Riketta, M., & Nienaber, S. (2007). Multiple identities and work motivation: The role of perceived compatibility between nested organizational units. *British Journal of Management*, 18, S61–S77.
- Rodin, J., Solomon, S. K., & Metcalf, J. (1978). Role of control in mediating perceptions of density. *Journal of Personality and Social Psychology*, 36(9). <https://doi.org/10.1037/0022-3514.36.9.988>
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78.  
<https://doi.org/10.1037/0003-066X.55.1.68>
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publications.
- Ryan, R. M., Deci, E. L., Grolnick, W. S., & La Guardia, J. G. (2006). The significance of autonomy and autonomy support in psychological development and psychopathology. In *Developmental psychopathology: Theory and method* (pp. 795–849). John Wiley & Sons, Inc.
- Ryan, R. M., Stiller, J. D., & Lynch, J. H. (1994). Representations of Relationships to Teachers, Parents, and Friends as Predictors of Academic Motivation and Self-Esteem. *The Journal of Early Adolescence*, 14(2), 226–249. <https://doi.org/10.1177/027243169401400207>
- Sauder, M., Lynn, F., & Podolny, J. M. (2012). Status: Insights from organizational sociology. *Annual Review of Sociology*, 38, 267–283.

- Schnatterly, K., Gangloff, K. A., & Tuschke, A. (2018). CEO Wrongdoing: A Review of Pressure, Opportunity, and Rationalization. *Journal of Management*, 44(6), 2405–2432.  
<https://doi.org/10.1177/0149206318771177>
- Schüler, J., & Kuster, M. (2011). Binge eating as a consequence of unfulfilled basic needs: The moderating role of implicit achievement motivation. *Motivation and Emotion*, 35(1), 89–97.  
<https://doi.org/10.1007/s11031-010-9200-y>
- Sebire, S. J., Standage, M., & Vansteenkiste, M. (2009). Examining intrinsic versus extrinsic exercise goals: Cognitive, affective, and behavioral outcomes. *Journal of Sport and Exercise Psychology*, 31(2), 189–210.
- Shapiro, D., & Shapiro, L. (1981). *Autonomy & Rigid Character*. Basic Books.
- Stock, J. H., & Watson, M. W. (2008). Heteroskedasticity-Robust Standard Errors for Fixed Effects Panel Data Regression. *Econometrica*, 76(1), 155–174. <https://doi.org/10.1111/J.0012-9682.2008.00821.X>
- Stryker, S. (1968). Identity Saliency and Role Performance: The Relevance of Symbolic Interaction Theory for Family Research. *Journal of Marriage and the Family*, 30(4), 558.  
<https://doi.org/10.2307/349494>
- Stryker, S. (1980). *Symbolic interactionism: A social structural version*. Benjamin-Cummings Publishing Company.
- Stryker, S., & Serpe, R. T. (1982). Commitment, identity saliency, and role behavior: Theory and research example. In *Personality, roles, and social behavior* (pp. 199–218). Springer.
- Tajfel, H. (1969). Cognitive Aspects of Prejudice. *Journal of Social Issues*, 25(4), 79–97.  
<https://doi.org/10.1111/j.1540-4560.1969.tb00620.x>
- Tajfel, H. (1974). Social identity and intergroup behaviour. *Social Science Information*, 13(2), 65–93.
- Tajfel, H., & Turner, J. C. (1985). The social identity theory of intergroup behavior. In W. G. Austin & S. Worchel (Eds.), *Psychology of intergroup relations* (2nd ed., pp. 7–24). Nelson-Hall.
- Tajfel, H., Turner, J. C., Austin, W. G., & Worchel, S. (1979). An integrative theory of intergroup conflict. *Organizational Identity: A Reader*, 56(65), 9780203505984–16.

- Thøgersen-Ntoumani, C., Ntoumanis, N., & Nikitaras, N. (2010). Unhealthy weight control behaviours in adolescent girls: a process model based on self-determination theory. *Psychology & Health, 25*(5), 535–550. <https://doi.org/10.1080/08870440902783628>
- Thorndike, E. L. (1913). *The psychology of learning* (Vol. 2). Teachers College, Columbia University.
- Tihanyi, L., Graffin, S., & George, G. (2014). From the Editors. *Rethinking Governance in Management Research, 57*(6), 1535–1543.
- Turner, J. C. (1985). Social categorization and the self-concept: A social cognitive theory of group behavior. *Advances in Group Processes: Theory and Research, 2*, 77–122.
- Turner, J. C. (2001). Using context to enrich and challenge our understanding of motivational theory. *Motivation in Learning Contexts: Theoretical Advances ...*, March, 85–104.
- Twenge, J. M., Campbell, S. M., Hoffman, B. J., & Lance, C. E. (2010). Generational differences in work values: Leisure and extrinsic values increasing, social and intrinsic values decreasing. *Journal of Management, 36*(5), 1117–1142. <https://doi.org/10.1177/0149206309352246>
- Vallerand, R. J., & Reid, G. (1984). On the Causal Effects of Perceived Competence on Intrinsic Motivation: A Test of Cognitive Evaluation Theory. *Journal of Sport Psychology, 6*(1), 94–102. <https://doi.org/10.1123/jsp.6.1.94>
- Van den Broeck, A., Ferris, D. L., Chang, C. H., & Rosen, C. C. (2016). A Review of Self-Determination Theory's Basic Psychological Needs at Work. *Journal of Management, 42*(5), 1195–1229. <https://doi.org/10.1177/0149206316632058>
- van den Broeck, A., Howard, J. L., van Vaerenbergh Leuven, Y. K., Hannes Leroy, B., & University, C. (2021). Beyond intrinsic and extrinsic motivation: A meta-analysis on self-determination theory's multidimensional conceptualization of work motivation. *Organizational Psychology Review, 11*(3), 240–273. <https://doi.org/10.1177/20413866211006173>



- Van Hiel, A., & Vansteenkiste, M. (2009). Ambitions fulfilled? The effects of intrinsic and extrinsic goal attainment on older adults' ego-integrity and death attitudes. *The International Journal of Aging and Human Development*, 68(1), 27–51. <https://doi.org/10.2190/AG.68.1.b>
- Vansteenkiste, M., Lens, W., Elliot, A. J., Soenens, B., & Mouratidis, A. (2014). Moving the achievement goal approach one step forward: Toward a systematic examination of the autonomous and controlled reasons underlying achievement goals. *Educational Psychologist*, 49(3), 153–174.
- Vansteenkiste, M., Mouratidis, A., & Lens, W. (2010). Detaching reasons from aims: Fair play and well-being in soccer as a function of pursuing performance-approach goals for autonomous or controlling reasons. *Journal of Sport and Exercise Psychology*, 32(2), 217–242. <https://doi.org/10.1123/jsep.32.2.217>
- Vansteenkiste, M., & Ryan, R. M. (2013). On psychological growth and vulnerability: Basic psychological need satisfaction and need frustration as a unifying principle. *Journal of Psychotherapy Integration*, 23(3), 263–280. <https://doi.org/10.1037/a0032359>
- Vroom, V. H. (1964). *Work and motivation*.
- Waddock, S. A., & Graves, S. B. (1997). The corporate social performance–financial performance link. *Strategic Management Journal*, 18(4), 303–319.
- Watson, J. B. (1913). Psychology as the behaviorist views it. *Psychological Review*, 20(2), 158.
- Westphal, J. D., & Zajac, E. J. (1995). Who Shall Govern? CEO/Board Power, Demographic Similarity, and New Director Selection. *Administrative Science Quarterly*, 40(1), 60. <https://doi.org/10.2307/2393700>
- White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review*, 66(5), 297.
- Williams, G. C., Hedberg, V. A., Cox, E. M., & Deci, E. L. (2000). Extrinsic Life Goals and Health-Risk Behaviors in Adolescents 1. *Journal of Applied Social Psychology*, 30(8), 1756–1771.

- Williams, G. C., Niemiec, C. P., Patrick, H., Ryan, R. M., & Deci, E. L. (2009). The importance of supporting autonomy and perceived competence in facilitating long-term tobacco abstinence. *Annals of Behavioral Medicine*, 37(3), 315–324.
- Withers, M. C., & Fitza, M. A. (2017). Do board chairs matter? The influence of board chairs on firm performance. *Strategic Management Journal*, 38(6), 1343–1355. <https://doi.org/10.1002/smj.2587>
- Withers, M. C., Hillman, A. J., & Cannella, A. A. (2012). A multidisciplinary review of the director selection literature. *Journal of Management*, 38(1), 243–277.  
<https://doi.org/10.1177/0149206311428671>
- Woodworth, R. S. (1918). *Dynamic psychology*. Columbia University Press.
- Zhang, Z. (2016). Semi-parametric regression model for survival data: graphical visualization with R. *Annals of Translational Medicine*, 4(23). <https://doi.org/10.21037/ATM.2016.08.61>

## **VITA**

2010 B.E. in Finance, Sichuan University, Chengdu, China  
2012 M.B.A., The University of Mississippi, University, U.S.A.