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# The Invisible Hand of Evolutionary Psychology: The Importance of Kinship in First-Generation Family Firms

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## Abstract

While previous studies focus on differences between family and nonfamily firms regarding CEO selection and executive compensation, this study investigates differences among family firms with different types of kinship ties. We find that, compared with family firms with close kinship ties, those with distant kinship ties are more likely to appoint a nonfamily CEO and to pay nonfamily executives lower salaries. This relationship is moderated by firm performance and family ownership. Based on evolutionary psychology, we propose that family firms with close versus distant kinships have different motivation levels to preserve socioemotional wealth.

## Keywords

kinship, family firm, executive salaries, socioemotional wealth (SEW), evolutionary psychology

Family business research has long recognized the various ways a family can be involved and influence a family firm, such as through ownership, governance, leadership, management, and employment (e.g., Alessandri, Cerrato, & Eddleston, 2018a; Boellis, Mariotti, Minichilli, & Piscitello, 2016; Daspit, Chrisman, Sharma, Pearson, & Mahto, 2018; Gedajlovic, Carney, Chrisman, & Kellermanns, 2012; Schmid, Ampenberger, Kaserer, & Achleitner, 2015). These sources of family influence are often used to explain why family and nonfamily firms display different behaviors and how family firms vary. However, while prior research has focused on different sources of family influence from the business side of the family firm, scholars have called for more research that captures the diversity of business-owning families (Daspit et al., 2018; James, Jennings, & Breitkreuz, 2012; Jaskiewicz, Block, Miller, & Combs, 2017; Powell & Eddleston, 2017). Indeed, various types of kinship ties can exist within a family business,

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including relationships between spouses, parents, children, aunts/uncles, grandparents, in-laws, and cousins (Tapis, 2011). In turn, research suggests that different types of family relationships may explain why some studies portray family firms as prioritizing socioemotional wealth (SEW) over financial wealth, and other research shows the opposite (e.g., Alessandri et al., 2018a; Berrone, Cruz, & Gómez-Mejía, 2012). Therefore, scholars need to go beyond the assumption of a family as a "nuclear" family (Distelberg & Blow, 2011) and consider how different kinship ties shape a family firm's behavior and prioritization of SEW.

Recent studies suggest that family firms vary in their prioritization of SEW and financial goals (Alessandri et al., 2018a; Boellis et al., 2016; Schmid et al., 2015); although they have yet to consider differences in business-owning families' kinship ties. Such an omission is surprising given that theoretical advancements drawing from evolutionary psychology theory emphasize the importance of genetic ties shared in a family business to understanding nepotism, diverse interests between family branches and more distant relatives, and how a family's "genetic identity" transfers to their firm (Björnberg & Nicholson, 2012; Collin & Ahlberg, 2012; Nicholson, 2008a; 2008b; 2013; 2015). Evolutionary psychology theory draws from Darwin's theory of natural selection to explain how individuals' behaviors and motives are shaped by their desire to pass on their genes to the next generation (Axelrod & Hamilton, 1981; Davis & Daly, 1997; Hamilton, 1964).

A key finding from evolutionary psychology research is that altruism and displays of support are linearly related to genetic closeness (Axelrod & Hamilton, 1981; Davis & Daly, 1997; Hamilton, 1964). We therefore integrate insight from evolutionary psychology theory with research on SEW to investigate family firms' preference for a family CEO and compensation of nonfamily executives based on whether family members holding key leadership positions share close or distant kinship ties with the chairman. Close kin are parents, siblings, and one's children. Distant kin are other family relations including grandparents, aunts/uncles, nephews/nieces, cousins, and in-laws (Burnstein, Crandall, & Kitayama, 1994; Madsen et al., 2007; Smith, Kish, & Crawford, 1987). We focus on explaining the choice of a CEO and nonfamily executive compensation because both have been tied to a family firm's prioritization of SEW (i.e., Berrone et al., 2012; Chrisman, Memili, & Misra, 2014; Gómez-Mejía, Haynes, Núñez-Nickel, Jacobson, & Moyano-Fuentes, 2007). Further, because evolutionary psychology suggests that a family's economic resources and status (Charlton, 1997; Davis & Daly, 1997; Mulder, 2007; White & Riedmann, 1992) influence their altruism and sense of stability, we investigate the role of firm financial performance and family ownership control in our framework.

Our study makes several contributions to the family firm literature. First, we extend research on the heterogeneity of family firms (Chua, Chrisman, Steier, & Rau, 2012; Chrisman, Sharma, Steier, & Chua, 2013; Stanley, Kellermanns, & Zellweger, 2017; Westhead & Howorth, 2007) by developing a framework based on evolutionary psychology theory that proposes that business-owning families vary in their prioritization of SEW and put the "family" at the front and center of family business research (James et al., 2012; Jennings, Breitkreuz, & James, 2014; Powell & Eddleston, 2017). Second, in line with evolutionary psychology research that proposes that resources matter in predicting nepotism and feelings of stability (Charlton, 1997; Davis & Daly, 1997; White & Riedmann, 1992; Mulder, 2007), we consider how the firm's financial performance and the family's ownership control alter the preference for a family CEO and nonfamily executive compensation. Third, we highlight the applicability of evolutionary psychology theory to family firm research by demonstrating how kin selection, and specifically the strong support and loyalty shared among close kin, applies to family firm behavior.

## Literature Review and Hypotheses

### *Evolutionary Psychology Theory*

Evolutionary theory in psychology combines the science of psychology with the study of biology to explain individuals' behaviors and motivations based on Darwin's theory of evolution through natural selection (Axelrod & Hamilton, 1981; Buss, 2015; Davis & Daly, 1997; Hamilton, 1964; Lewis, Al-Shawaf, Conroy-Beam, Asao, & Buss, 2017). Although the theory acknowledges that human behavior is flexible and shaped by the environment, it proposes that humans possess biologically-based predispositions that were formed over a long evolutionary history of living in extended family groups. Evolutionary psychology theory proposes that individuals' behaviors and motivations continue to reflect the physical and psychological predispositions that helped their human ancestors to reproduce and survive (Axelrod & Hamilton, 1981; Buss & Schmitt, 2011; Cosmides & Tooby, 2013; Hamilton, 1964). It thus portrays the family as the building block of society and a fundamental biological entity (Nicholson, 2015, p. 237).

In the ancestral environment, humans developed a set of behaviors and motivations that supported their inclusive fitness; that is, their ability to pass on their genes to the next generation (Burnstein et al., 1994; Bernard, Mills, Swenson, & Walsh, 2005). Through evolution, humans learned that their reproductive success and that of their offspring increased with the support of kin, thus creating humans' instinctual need to give preference to family (Axelrod & Hamilton, 1981; Hamilton, 1964). Referred to as kin selection theory or "Hamilton's rule," it is proposed that individuals have an innate desire to help and support those who share their genes and that help and support is offered in proportion to one's degree of genetic relatedness (Axelrod & Hamilton, 1981; Daly, Salmon, & Wilson, 2013; Emlen, 1995; Lewis et al., 2017).

Kin selection theory from evolutionary psychology is often discussed in relation to inclusive fitness of evolutionary biology. Inclusive fitness reflects an organism's ability to pass on its genes to the next generation, taking into account the shared genes passed on by the organism's close relatives (Axelrod & Hamilton, 1981; Caporael, 2001; Hamilton, 1964). Human beings' genetic success is believed to be fostered by cooperation and altruistic behaviors, which helps explain why humans' social dynamics are governed by complex systems of nepotism and reciprocal exchange (Davis & Daly, 1997; West, Griffin, & Gardner, 2007). Thus, in integrating kin selection theory with inclusive fitness, acts of altruism and self-sacrifice reflect genetic relatedness (Burnstein et al., 1994; Korchmaros & Kenny, 2001). "Kinship represents a baseline against which humans make judgments that may subsequently be colored by issues of reciprocity, obligation, prosociality and other ethical considerations" (Madsen et al., 2007, p. 355). The goal of evolutionary psychology theory is therefore to identify elements of our evolved human nature, understand how they are reflected in everyday life, and consider the implication for human well-being and effectiveness (Confer et al., 2010; Nicholson, 2008b).

Given evolutionary psychology theory's emphasis on kinship, biological reproduction, and family as a primal entity, it is surprising that family business research has not more fully embraced it (Nicholson, 2013; 2015; Yang, Colarelli, Han, & Page, 2011). From an evolutionary perspective, family firms seem to be the form of business organization that is closest to our nature, satisfying our nepotistic tendencies and desire for high trust exchanges within a communal structure with permeable and flexible boundaries between economic and social interests (Stewart, 2003). Nepotism in family firms is a sign of commitment and continuity toward the next generation and thus, it is the glue that holds families and their businesses together (Neyer & Lang, 2003; Nicholson, 2015). As such, Nicholson (2008a; 2008b; 2013; 2015) has called for family business researchers to embrace evolutionary psychology theory in hopes that it can elucidate how family firms are distinct, especially in regard to nepotism and kin selection, sources of cooperation and conflict among different types of family relationships, and how the "genetic identity" of the

family transfers to the firm. We therefore extend the limited amount of research applying evolutionary psychology theory to family firms by incorporating additional insight on kin selection to develop a framework that explains why close versus distant kin have different preferences regarding family and nonfamily CEOs and nonfamily executive compensation that differ depending on the firm's financial performance and the family's ownership control.

### *The Effect of Kinship Status on Socioemotional Wealth Preservation*

Recently, more emphasis has been placed on investigating differences among family firms (e.g., Alessandri et al., 2018; Boellis et al., 2016; Schmid et al., 2015). However, what is missing is a deeper look at differences in the family's kinship structure, that is, the genetic bonds of family members holding leadership positions in the firm (i.e., the genetic closeness to the firm's chairman of family members serving as directors, supervisors, executives, and key technical staff). Our theorizing goes further than current research (e.g., Gersick, Davis, Hampton, & Lansberg, 1997) by explicitly capturing the degree of closeness of kinship ties among family executives and developing arguments drawn from evolutionary psychology theory to explain why the behaviors and motives of families with close versus distant kinship ties vary in their prioritization of the pursuit of SEW.

SEW reflects the stock of affect-related endowments that an owning family derives from its business (Berrone et al., 2012). SEW captures the nonfinancial aspects of a firm that help meet a family's affective needs such as the ability to exercise influence and control, identity, and the perpetuation of the family dynasty (Gómez-Mejía et al., 2007). Research demonstrates that different forms of family involvement in a firm, such as through ownership of shares, presence on the board of directors, and occupying leadership positions, has implications for the family's influence on operational and strategic decisions, and also the emphasis a family places on protecting SEW (Boellis et al., 2016; Schmid et al., 2015). Below, we will advance hypotheses on how kinship affects the appointment of family CEOs and nonfamily executive salaries as well as how the relationships is moderated by firm performance and family ownership. Our conceptual model is portrayed in Figure 1.

### *The Effect of Kinship Structure on Socioemotional Wealth Preservation*

Family firms often consider SEW preservation as the primary reference point when making decisions and, when family control is at risk, many are willing to sacrifice economic benefits in exchange for the protection of their SEW (Gómez-Mejía et al., 2007). However, as more research

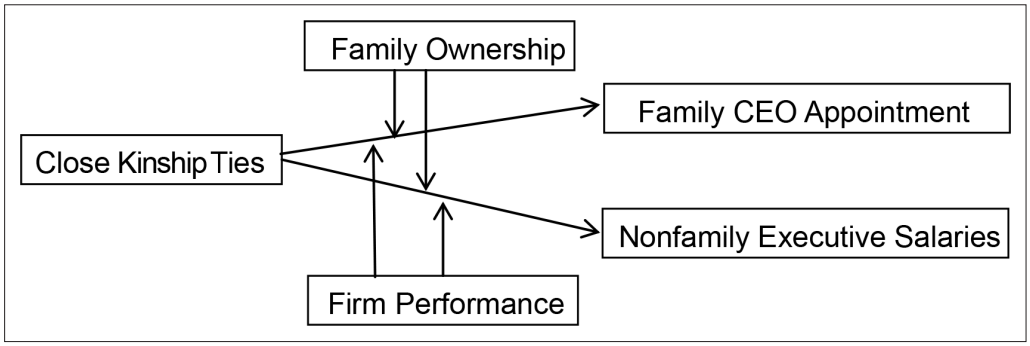


**Figure 1.** Overview of the conceptual model.

explores the heterogeneity among family firms, it appears that not all family firms prioritize SEW over financial wealth or view sources of SEW in the same way (Alessandri et al., 2018; Alessandri, Mammen, & Eddleston, 2018; Gómez-Mejía, Cruz, Berrone, & De Castro, 2011; Gómez-Mejía, Patel, & Zellweger, 2018; Kellermanns, Eddleston, & Zellweger, 2012). In developing our framework based on evolutionary psychology theory, we therefore propose that family firms with closer kinship ties place greater emphasis on preserving SEW than those with more distant kinship ties. For simplicity, we focus our arguments on close versus distant kinship ties although we recognize, and include in our analysis, firms with a combination of close and distant kinship ties.

Kin selection theory explains how individuals are more likely to help relatives than nonrelatives, and close relatives than distant relatives (Foster, Wenseleers, & Ratnieks, 2006; Hamilton, 1964). Close kin are typically defined as parents and siblings, and distant kin are defined as other genetic relations including aunt/uncles, grandparents, and cousins (Burnstein et al., 1994; Madsen et al., 2007; Smith et al., 1987). For close kin, lifelong nepotistic interactions (Chapais, 2001; Davis & Daly, 1997) and displays of altruism are common (Hamilton, 1964; West & Gardner, 2010). For example, a cross-cultural experimental study on altruism among kin showed that participants are more willing to suffer physically for the economic good of relatives in proportion to the relative's degree of genetic relatedness (Madsen et al., 2007). Additionally, evolutionary psychology theory recognizes the importance of love and emotion in developing and maintaining kinship bonds (Davis & Daly, 1997). Strong kinship bonds based on shared love and emotion underpin the persistence of loyal familial affiliations, which tend to be strongest among close kin (Davis & Daly, 1997). Close kinship bonds are a source of security and belonging that produce expectations for loyalty. They are also associated with greater trust and trustworthiness than distant kinship bonds (Vollan, 2011). Family members are also inclined to give kin the benefit of the doubt (Nicholson, 2015), which kin selection theory would propose varies for close versus distant kin. As such, the intense support and loyalty that close kin tend to share is expected to transfer to the family firm as an emphasis on preserving SEW.

Applying this logic to a family firm's choice of a CEO suggests that family firms comprised of close kin will give strong preference to a family CEO over a nonfamily CEO. Given kinship selection theory's premise that acts of altruism and support are in proportion to genetic relatedness, family firms with close kinship ties should perceive the choice of a family CEO as a reflection of their loyalty and support. In contrast, because distant kin share less loyalty and trust than close kin (Vollan, 2011), they should be less likely to appoint a family CEO. Individuals are more like to discriminate between close and distant kin (Burnstein et al., 1994), suggesting that distant kin do not possess the same level of nepotism as close kin. Indeed, Nicholson (2015) acknowledged that as family firms come to include multiple family branches and family members with weaker genetic ties, it is more likely that inter-branch feuds will erupt and interests will diverge. Due to the divergent interests in family firms with more distant kin, a nonfamily CEO may be preferred since she or he can serve as a neutral mediator. Further, family firms with distant kinship ties will likely not emphasize the pursuit of SEW to the same degree or will have the same preferences as those with close kinship ties, thus making the appointment of a family CEO less important to them. Therefore, we expect close kinship firms to be more likely to appoint a family CEO than distant kinship firms.

> ***Hypothesis 1:*** *Family firms with close kinship ties are more likely to appoint a family member as CEO than family firms with distant kinship ties.*

According to the SEW perspective, family firms often place family members in key executive positions in order to preserve SEW (Berrone et al., 2012; Gómez-Mejía et al., 2007). This,

however, negatively influences nonfamily executives' promotion opportunities within the family firm (e.g., Chrisman et al., 2014; Hauswald, Hack, Kellermanns, & Patzelt, 2016; Tabor, Chrisman, Madison, & Vardaman, 2018). For the purpose of this study, we define a nonfamily executive as a top management team (TMT) member who is not a family member. The literature maintains that in order to compensate for the lack of upward mobility, family firms often need to pay their nonfamily executives higher salaries (Chrisman et al., 2014). In other words, to preserve SEW, family firms are willing to sacrifice some economic benefits (Gómez-Mejía et al., 2007). It is surprising, however, that very little is known about the actual compensation practices of family firms, especially that of the TMT. While research has demonstrated that nonfamily CEOs earn more than family CEOs (e.g., Gómez-Mejía, Larraza-Kintana, & Makri, 2003; Schulze, Lubatkin, Dino, & Buchholtz, 2001), especially when there is greater family representation (Combs, Penney, Crook, & Short, 2010), research has yet to explore variance in nonfamily TMT compensation among family firms.

Compensation is a key way that firms motivate their executives and ensure that they make decisions that reflect the shareholders' interests (Jensen & Murphy, 1990). Because family firms often limit the career prospects of nonfamily executives, higher compensation can be used to decrease their turnover (Combs et al., 2010; Chrisman et al., 2014). This may be particularly necessary in family firms with close kinship ties since, according to kin selection theory, they should prefer family members over nonfamily members for executive positions. Additionally, in close kinship firms, nonfamily executives may have higher salary expectations in order to compensate for any limited career prospects. Further, since the preservation of SEW is expected to be greater in close than distant kinship firms, firms comprised of close kin may offer nonfamily executives higher salaries in order to align their interests with that of the family. In contrast, because research suggests that family firms with less nepotism and particularism do not need to overpay their nonfamily executives to gain their commitment (Verbeke & Kano, 2012), we argue that distant kinship firms are able to pay their nonfamily executives less than close kinship firms. Accordingly, we hypothesize:

***Hypothesis 2:*** *Family firms with close kinship ties pay higher salaries to nonfamily executives than family firms with distant kinship ties.*

### *Contingencies on Family CEO Appointments and Nonfamily Executive Salaries*

In applying evolutionary psychology theory to explore heterogeneity in the emphasis that family firms with close versus distant kinship ties place on SEW, it is important to consider the effect of resources, given that research shows that nepotism and family loyalty are influenced by economic considerations (Charlton, 1997; Davis & Daly, 1997; Mulder, 2007; White & Riedmann, 1992) and a family's lack of dominance encourages the formation of alliances to provide reciprocal support (Charlton, 1997; Nicholson, 1997). Accordingly, we consider how firm financial performance and family ownership affect the preference for a family CEO and nonfamily executive compensation for family firms with close and distant kinship ties. As such, we also extend research that has found that strong versus weak financial performance alters family firms' prioritization of SEW and economic goals (Alessandri et al., 2018; Chrisman & Patel, 2012; Gómez-Mejía et al., 2018) and that greater family ownership increases the pursuit of SEW (Alessandri et al., 2018a; 2018b), by demonstrating how these relationships vary for family firms with close versus distant kinship ties.

### *The Moderating Effect of Firm Performance*

Evolutionary psychology theory often considers how the availability and need for resources influence nepotism and altruism (Burnstein et al., 1994; Davis & Daly, 1997; Mulder, 2007).

Specifically, while kin selection theory proposes that altruism and kinship are linearly related (Burnstein et al., 1994; Hamilton, 1964), research also recognizes that nepotism critically depends on resource availability (Mulder, 2007; Nicholson, 2008b) and that economic prosperity fosters family stability and loyalty (Davis & Daly, 1997). Although kin maintain ties no matter their socioeconomic status, the ties appear stronger the wealthier the family (Davis & Daly, 1997; Eggebeen & Hogan, 1990; White & Riedmann, 1992). Families with economic prosperity offer their members more standing in the community and serve as an important resource in times of need (Davis & Daly, 1997). However, as resources become scarce, competition among family members can easily spark, especially among more distant kin (Burnstein et al., 1994; Mulder, 2007). Indeed, in times of crisis and limited resources, individuals become particularly discerning between close and distant kin (Davis & Daly, 1997). Therefore, evolutionary psychology theory suggests that while economic prosperity encourages both close and distant kin to form stronger bonds and feelings of loyalty, an economic decline can promote competition for resources, particularly among distant kin.

Similar to this research, family business studies have investigated how financial vulnerability versus financial slack affects a family firm's prioritization of SEW (e.g., Alessandri et al., 2018a; 2018b; Gómez-Mejía et al., 2018). Family firms weigh anticipated losses and gains in both financial wealth and SEW when making strategic decisions, which scholars refer to as a "mixed gamble" (Alessandri et al., 2018a; Gómez-Mejía et al., 2018). This research proposes that, when faced with poor financial performance, the source of the family's financial and SEW is threatened, which thereby pushes the family firm to seek financial improvements. Additionally, this research suggests that for family firms that strongly prioritize the maintenance of SEW, losses to some financial wealth will likely be tolerated as long as their SEW is maintained.

Applying this logic to our framework therefore suggests that because close kinship firms prioritize SEW more than distant kinship firms, they will continue to prefer a family CEO over a nonfamily CEO even when financial performance is low. In contrast, low firm performance will increase the likelihood that a distant kinship firm will have a nonfamily CEO. Further, because poor financial performance heightens family firms' fear of losing SEW (Alessandri et al., 2018b; Berrone et al., 2012), firms with close kinship ties should pay their nonfamily executives higher salaries than those with distant kinship ties in hopes of aligning their nonfamily executives' interests with those of the family. Additionally, while poor financial performance is likely to depress all nonfamily executives' compensation, we expect the compensation in distant kinship firms to be significantly lower because of their greater emphasis on financial wealth relative to SEW, in comparison to close kinship firms.

Turning to strong financial performance, however, we expect very different results. Because financial wealth is associated with stronger bonds and loyalty among distant kin (Davis & Daly, 1997; Eggebeen & Hogan, 1990; White & Riedmann, 1992), and thus, should encourage feelings of nepotism and support somewhat similar to close kin, strong financial performance should increase distant kinship firms' tendency to appoint a family CEO and the compensation of their nonfamily executives. This is in line with research that suggests that financial slack increases a family's discretion and allows it to feel confident emphasizing SEW concerns (Alessandri et al., 2018a). However, we extend this research on financial slack by arguing that it is particularly important to distant kinship firms since the financial wealth fosters family bonds and loyalty that thereby leads these firms to become more interested in protecting the family's SEW through the appointment of a family CEO and higher compensation to nonfamily executives. Therefore, we hypothesize:

***Hypothesis 3:*** *Firm performance will moderate the relationship between kinship ties and the presence of a family CEO. Specifically, the positive relationship between status as a family firm with close kinship ties and the presence of a family CEO will be stronger when firm performance is low.*

***Hypothesis 4:*** *Firm performance will moderate the relationship between kinship ties and nonfamily executive salaries. Specifically, the positive relationship between status as a family firm with close kinship ties and nonfamily executive salaries will be stronger when firm performance is low.*

## *The Moderating Effect of Family Ownership*

Evolutionary psychology theory recognizes how status and dominance are key values in human groups that allow for nepotism in material favor as well as the advancement of offspring within society and its institutions (Davis & Daly, 1997; Henrich & Gil-White, 2001; Nicholson, 2013). Research from evolutionary psychology shows how families that lack dominance in their clan, and thus, do not control important resources, often form alliances with nonkin to increase their inclusive fitness. Extending this research to our framework therefore suggests that a family's level of firm ownership likely matters in predicting close versus distant kinship firms' choice of a CEO and nonfamily executive compensation.

Although research discerns between family control through leadership and ownership (Alessandri et al., 2018a; Boellis et al., 2016; Schmid et al., 2015), it has yet to consider differences between business-owning families based on their close or more distant kinships. Family leadership (i.e., family CEO) allows a family firm to have an active hand in daily operations and decision making, including the allocation of resources (Schmid et al., 2015). A family CEO therefore allows a family to take actions to protect the family's interests, including its SEW. On the other hand, family ownership exerts influence in a more distant manner through monitoring and voting rights (Boellis et al., 2016; Schmid et al., 2015). Family ownership allows the family to influence broader strategic decisions, as opposed to the operational issues that are easily influenced by a family CEO (Alessandri et al., 2018a). In turn, family firms with strong family ownership are more likely to actively monitor and engage management given that their large ownership stake strengthens the family's identification with the firm (Arregle, Naldi, Nordqvist, & Hitt, 2012). As a result, families with strong ownership are better able to pursue their goals, while those with weak ownership perceive a greater threat to their influence because of their limited ability to guide strategic decisions (Alessandri et al., 2018a).

Integrating evolutionary psychology theory with research on family ownership therefore suggests that when ownership is high, because close kinship firms will feel more secure in their ability to preserve SEW, their need to appoint a family CEO and pay nonfamily executives higher salaries should dampen. Further, since high ownership allows a family to pursue its idiosyncratic goals, those firms with distant kinship ties should be more likely to appoint a nonfamily CEO and limit nonfamily executive compensation given their greater emphasis on financial wealth over SEW, relative to close kinship firms. Additionally, given distant kinship firms' prioritization of financial wealth, their preference for a nonfamily CEO and lower nonexecutive compensation is unlikely to significantly change when their ownership is low.

However, when close kinship firms lack ownership control, we expect the family to seek to improve their influence and demonstrate self-preservation behaviors, as predicted by evolutionary psychology theory. This suggests that their preference for a family CEO will heighten since a family member leading the firm could help to protect the family's SEW—something that family owners will have difficulty doing with low control. Further, the compensation of nonfamily executives should increase as the family feels greater pressure to form alliances with executives that can support their interests. Therefore, we hypothesize:

***Hypothesis 5:*** *Family ownership moderates the relationship between kinship ties and the presence of a family CEO. Specifically, the positive relationship between status as a family firm with close kinship ties and the presence of a family CEO will be stronger when family ownership is low.*

***Hypothesis 6:*** *Family ownership moderates the relationship between kinship ties and nonfamily executive salaries. Specifically, the positive relationship between status as a family firm with close kinship ties and nonfamily executive salaries will be stronger when family ownership is low.*

## Research Method

*Sample.* Our sample consists of publicly-listed family firms. We examined firms listed on the Small & Medium Enterprise Board and Growth Enterprise Board (also ChiNext Board) of the Shenzhen Stock Exchange. The Chinese Stock Exchange is comprised of three parts: the Main Board, Small & Medium Enterprise Board, and Growth Enterprise Board. We use data from Small & Medium Enterprise Board and Growth Enterprise Board because most firms listed on the Main Board either are state-owned or have a profound government background,[1] which makes them unsuitable for this study.

Because the definition and operationalization of family firms is often debated (Chua, Chrisman, & Chang, 2004; Gómez-Mejía et al., 2014), we used a multifaceted approach based on family ownership and involvement (i.e., at least one additional family member works in the firm beyond the chairman, and the family owns at least 20% of firm shares; e.g., Gómez-Mejía et al., 2018; Kotlar et al., 2018; La Porta, Lopez-De-Silanes, & Shleifer, 1999). In order to ensure the accuracy of kinship and eliminate confounds, we omitted firms where the chairman is not a controlling member of the firm. The China Securities Regulatory Commission defines a family member as having a "controlling position" if she or he holds at least one of the four following positions in firm: (a) director, (b) supervisor, (c) executive, and/or (d) key technical staff in the business.

Based on the rules above, we collected an initial sample of 435 family firms. To eliminate outliers that may influence results (Hair, Black, Babin, & Anderson, 2010), we dropped nine firms from the sample because they had a significantly higher number of top management team members (i.e., 20 or more). As most Chinese family firms are young due to pro-market reforms over the last decades that allowed for private firm ownership (Zhao, Carney, Zhang, & Zhu, 2018), there were five firms in our sample that had already experienced an intergenerational transition where the founding chairman left and the second generation take the position of the chairman. We deleted these firms in order to avoid potential confounds due to a succession event. This resulted in a final sample of 421 founding family firms.

The Small & Medium Enterprise Board was established in 2004, so we collected data beginning in 2004. In 2014, the Chinese government started the "Salary limit order" in state-owned enterprises to advocate lower executive salaries. Though this government decree focuses mainly on state-owned enterprises, it would likely influence the balance between demand and supply in the human resource market, changing salary expectations of executives in family firms; thus we use data up until year 2013. Therefore, our study utilizes a panel dataset including 421 family firms and 1,464 observations.

Among the total 421 sample firms, 64.61% of our sample (272 firms) are listed on the Small & Medium Enterprise Board and 35.39% (149 firms) are listed on the Growth Enterprise Board. Family firms from these two boards have similar family ownership level, age, performance, kinship structure, governance structures, and so forth. However, family firms listed on the Small & Medium Enterprise Board have an average of 2,146 employees and are usually larger than those listed on the Growth Enterprise Board, which have an average of 846 employees.

## Variable Definition and Measurement

### Dependent variable

*Nonfamily executive salary.* We measure nonfamily executive salaries by calculating the average of nonfamily executive salaries within each firm. Note that salary includes base salary, bonus, and allowance. We also took the natural logarithm of the average of nonfamily executive salaries in order to normalize the distribution. The mean value of the natural log of average nonfamily executive salary is 12.046, and the standard deviation is 0.554 (untransformed value of 199296.9 RMB, equaling approximately US$ 29,018 according to the exchange rate in 2018).

*Presence of a family CEO.* We coded whether a family member serves as the firm's CEO. We determined family/nonfamily CEO status at the end of the fiscal year. Specifically, if a family member serves as CEO of the firm at the beginning of the year but leaves the position during the year, and the successor at the end of the year is not a family member, then the CEO of the firm that year is considered nonfamily. Similarly, if a nonfamily member serves as CEO at the beginning of the year, but is replaced by a family member, we coded it as family. This variable was coded as a dummy variable where "1" indicates family and "0" indicates nonfamily. The mean value is 0.637, and the standard deviation is 0.481.

### Independent variables

*Status as a family firm with close versus distant kinship ties.* We use family members' relationship with the chairman to measure this variable. All of our sample firms are first-generation founding family firms, in which the chairman is the founder of the firm and usually serves as the patriarch of the family. In other words, chairman is not only the core of the firm but also the center of the family. The China Securities Regulatory Commission requires that during an IPO, public firms must disclose detailed personal information of the chairman as well as his or her relatives who engage in family firm management in the prospectus. Therefore, we manually collected kinship data from the prospectuses of all firms in our sample when they first went public. Using this information, we updated the kinship data every year using information from annual reports, and the resolutions of the board of directors and the board of supervisors. In annual reports, public firms are required to disclose changes of directors, supervisors, executives, and key technical staff. In the resolutions of the board of directors and the board of supervisors, firms explain in detail whether incumbents or successors in these positions have relationships (i.e., kinship) with the chairman, and if so, what type. In several cases where the firms disclosed the existence of kinship without specifying the type (i.e., close vs. distant), we verified the relationship through search engines including Baidu and Google. Excluding the kinship data that was collected by hand, we obtained other data such as governance and financial data from CSMAR and RESSET database.

Close kinship was then determined by the existence of close relatives (i.e., parents, children, spouses, siblings) holding positions as directors, supervisors, executives, and/or key technical staff in the family firm. In contrast, distant kinship was identified by relatives who are an uncle/aunt, nephew/niece, cousin, sibling-in-law, parent-in-law, or child-in-law, as well as other family relationships. This classification of kinship is in line with Criminal Procedure Law of the People's Republic of China which defines husband, wife, mother, father, son, daughter, brother, and sister as "close relatives."

According to this definition of close and distant relatives, we divide family firms into three categories: family firms with only close relatives working in the firm ("pure close relative"), family firms with only distant relatives working in the firm ("pure distant relative") and family

firms with both close and distant relatives working in the firm ("close/distant combination"). We dummy coded the three categories of kinship ties and used the pure distant relative family firm as our reference group. In the robustness test section, we also discuss different coding approaches to kinship and the associated results.

### Moderating variable

*Firm performance.* Consistent with previous research, we use ROA to measure firm performance (e.g., Miller, Minichilli, & Corbetta, 2013). ROA is calculated as the ratio of net profit to total assets and is presented in percentage terms. Hence the mean value of ROA is 8.001, indicating that the average level of firm performance is 8.001%. The standard deviation of firm performance is 6.444.

*Family ownership.* Consistent with existing research, we measure family ownership as the natural logarithm of the percentage of shares held by family members (e.g., Ahn, Cai, Hamao, & Ho, 2005). When calculating total shares held by family members and total shares of the firm, we use year-end data reported in the annual reports. The mean value of family ownership is 3.901, and the standard deviation is 0.297, which means the average family ownership is 51.50% with a standard deviation of 13.905.

### Control variables

We control for firm age and firm size (logarithmized; e.g., Miller, Breton-Miller, & Scholnick, 2008). To avoid a confound of managerial interest, we also control for executive ownership of the firm (Wright, Kroll, & Elenkov, 2002). In addition, we control for financial leverage of the firm (Mitchell, Pulvino, & Stafford, 2002). On the governance side, we control for CEO duality and ownership concentration within the family. Here, we use shares held by the largest family shareholder divided by shares held by all family members to measure ownership concentration within the family. To control for family firms' potential proximity to a succession event and intergenerational transition, we control for chairman age, which was dummy coded as "1" if the chairman of the firm is older than 60 years old and "0" otherwise.

On the family side, we included several controls. As longer job tenure denotes more stable relationship of family members, we control for average tenure of the family members holding a leadership position in the firm. To address the issue of the family's average human capital, we control for the average education level of these family members. Education level of each family member was measured as follows: "1" if the member graduated from a secondary school, "2" if graduated from college, "3" if held a bachelor's degree, "4" if held a master's degree, and "5" if held a doctor degree.

For the sake of parsimony, omitted from the Tables, we also control for year (panel data from 2004 to 2013), industry (De Massis, Kotlar, Wright, & Kellermanns, 2018), and province as the institutional environment can strongly impact the firm (Ge, Stanley, Eddleston, & Kellermanns, 2017).

## Results

The descriptive statistics and correlations of the dependent, independent and control variables are shown in Table 1.

**Table 1.** Descriptive Statistic and Correlations.

| Variable | Mean | *SD* | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Family CEO | 0.657 | 0.475 | | | | | | | | | | | | | | |
| 2 Average nonfamily executive salary | 12.046 | 0.554 | 0.019 | | | | | | | | | | | | | |
| 3 Pure close | 0.501 | 0.500 | 0.015 | **0.067** | | | | | | | | | | | | |
| 4 Close/Distant combination | 0.290 | 0.454 | **0.078** | −0.033 | **−0.641** | | | | | | | | | | | |
| 5 ROA | 8.001 | 6.444 | **−0.055** | 0.034 | 0.007 | **0.053** | | | | | | | | | | |
| 6 Family ownership | 3.901 | 0.297 | **0.057** | 0.043 | 0.037 | **0.109** | **0.171** | | | | | | | | | |
| 7 Firm size | 1.773 | 2.377 | 0.020 | **0.190** | −0.013 | 0.003 | **−0.095** | 0.045 | | | | | | | | |
| 8 Firm age | 10.617 | 4.398 | **0.114** | **0.178** | 0.018 | −0.029 | **−0.165** | **−0.080** | −0.045 | | | | | | | |
| 9 Education level of family members | 2.874 | 0.789 | **0.066** | 0.041 | **0.108** | **−0.155** | 0.004 | −0.019 | −0.016 | −0.017 | | | | | | |
| 10 Tenure of family members | 2.402 | 1.626 | 0.012 | **0.235** | 0.015 | **−0.073** | **−0.335** | **−0.250** | **0.236** | **0.191** | 0.006 | | | | | |
| 11 Ownership concentration within family | 47.967 | 14.764 | **0.089** | **0.113** | **0.061** | **0.131** | **0.203** | **0.623** | −0.008 | −0.009 | −0.036 | **−0.228** | | | | |
| 12 Debt/Asset rate | 32.054 | 18.330 | **−0.112** | **−0.050** | −0.035 | −0.020 | **−0.164** | 0.017 | **0.290** | −0.044 | −0.022 | **0.131** | **−0.073** | | | |
| 13 CEO duality | 0.443 | 0.497 | **0.517** | **0.054** | 0.008 | −0.026 | −0.029 | **0.115** | 0.046 | **0.122** | **0.055** | −0.009 | 0.004 | **−0.092** | | |
| 14 Share held by executives | 0.009 | 0.020 | 0.018 | −0.035 | −0.021 | 0.002 | **0.065** | **−0.248** | −0.042 | −0.015 | 0.043 | **−0.096** | **−0.115** | **−0.090** | 0.002 | |
| 15 Chairman age | 0.260 | 0.439 | **−0.078** | **−0.141** | 0.006 | **0.056** | **0.133** | −0.040 | **−0.106** | −0.032 | −0.005 | **−0.142** | 0.041 | **0.134** | **−0.169** | 0.035 |

*Note.* To facilitate the analysis, we take the natural logarithm of average nonfamily executive salary and family ownership. ROA and ownership concentration with family is presented in percentage form such that 8.619 stands for 8.619% and 47.697 stands for 47.697%. The unit of nonfamily executive salary is RMB yuan and firm age year. Correlations greater than 0.050 are significant at $p < .05$.
Values in bold are significant at $p < .05$.

The results of the probit model that tested the effects of kinship on the appointment of family CEOs are shown on the left side of Table 2. Model 1 in Table 2 shows the control model. We entered pure close kinship firms and close/distant combination firms in Model 2, which showed a significant positive effect between pure close kinship firms and family CEO ($B = 0.902$, $p < .05$), and a significant positive effect between close/distant combination firms and family CEO ($B = 2.064$, $p < .001$), providing empirical support for Hypothesis 1.[2]

The results of random effects model in testing the effects on kinship on nonfamily executive salaries are presented on the right side of Table 2, where Model 8 shows a significant positive effect between pure close kinship firms and average nonfamily executive salaries ($B = 0.142$, $p < .01$), and a significant positive effect between close/distant combination firms and average nonfamily executive salaries ($B = 0.147$, $p < .01$), indicating support for Hypothesis 2, which suggests that nonfamily executives are compensated more highly in family firms with closer kinship ties than in those with more distant kinship ties.[2]

Next, we tested the moderating effect of firm performance. Using the probit model, Model 6 in Table 2 shows that the interaction of pure close kinship firms and firm performance ($B = -0.156$, $p < .01$), and the interaction of close/distant combination firms and firm performance ($B = -0.257$, $p < .001$) have a significant and negative effect on family CEO, supporting Hypothesis 2. We plotted both the interactions of pure close kinship firms and close/distant combination firms with moderators; below we only present the results of the interactions of pure close kinship firms with moderators (Figure 2; $t_{probit\_high} = 1.623$, $p_{probit\_high} = .105$, $t_{probit\_low} = 2.044$, $p_{probit\_low} = .042$).[3]

Turning to Hypothesis 4, Model 12 of Table 2 shows that the interaction between pure close kinship firms and firm performance ($B = -0.007$, $p < .05$), and the interaction between close/distant combination firms and firm performance ($B = -0.007$, $p < .10$) have a significant and negative effect on the average nonfamily executive salaries, suggesting support for Hypothesis 4 (see also Figure 3, with the following simple slope significances: $t_{re\_high} = 0.890$, $p_{re\_high} = 0.374$, $t_{re\_low} = 2.867$ $p_{re\_low} = 0.004$).

Next, we explore the moderating effect of family ownership on family versus nonfamily CEO appointments. In the full model, Model 6 of Table 2, the interaction between pure close kinship firms and family ownership ($B = -2.637$, $p < .10$) and the interaction between close/distant combination firms and family ownership ($B = -3.632$, $p < .05$) have a significant effect on family CEO appointment. These findings provide support for Hypothesis 5 (see also Figure 4 with $t_{probit\_high}=0.894$, $p_{probit\_high}=0.372$, $t_{probit\_low}=3.289$, $p_{probit\_low}=0.001$)).

In the full model, Model 12 of Table 2, the interaction between pure close kinship firms and family ownership ($B = -0.226$, $p < .1$) and the interaction between close/distant combination firms and family ownership ($B = -0.221$, $p < .1$) have a marginally negative, significant effect on nonfamily executive salaries, providing marginal support for Hypothesis 6 (see also Figure 5 ($t_{re\_high}=0.501$, $p_{re\_high}=0.617$, $t_{re\_low}=2.829$, $p_{re\_low}=0.005$)).

## Robustness Tests

We conducted several additional robustness tests. The results were also consistent when we repeated our analysis using different levels of family ownership (e.g., 15% and 25%) and using different classifications of kinship ties (close vs. distant). We verified that multicollinearity and endogeneity or reverse causality is not a concern in our model, and that the results are robust after controlling for time-lagged effect. We also show the kinship effects hold when family members of closer kinship ties serve in other key executive positions other than CEO (e.g., vice president, CFO), and that family firms pay higher salaries to nonfamily executive than do nonfamily firm,

**Table 2.** The Effect of Close Kinship on Family CEO Appointment and Nonfamily Executive Salaries.

| | Family CEO (Probit Model) | | | | | | Nonfamily executive salary (Random Effect Model) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Model 1** | **Model 2** | **Model 3** | **Model 4** | **Model 5** | **Model 6** | **Model 7** | **Model 8** | **Model 9** | **Model 10** | **Model 11** | **Model 12** |
| Firm size | −0.080 | −0.105 | **−0.123**$^{+}$ | **−0.127**$^{+}$ | **−0.134*** | **−0.136**$^{+}$ | **0.038***** | **0.037***** | **0.035***** | **0.035***** | **0.034***** | **0.035** |
| | (0.064) | (0.066) | **(0.066)** | **(0.072)** | **(0.068)** | **(0.073)** | **(0.006)** | **(0.006)** | **(0.006)** | **(0.006)** | **(0.006)** | **(0.006)** |
| Firm age | 0.054 | 0.046 | 0.040 | 0.054 | 0.049 | 0.059 | 0.003 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 |
| | (0.044) | (0.044) | (0.044) | (0.051) | (0.048) | (0.053) | (0.005) | (0.005) | (0.005) | (0.005) | (0.005) | (0.005) |
| Education level of family member | **0.696*** | **0.902**** | **0.915***** | **1.065***** | **0.950**** | **1.058**** | 0.018 | 0.030 | 0.032 | 0.034 | 0.033 | 0.034 |
| | **(0.286)** | **(0.295)** | **(0.295)** | **(0.333)** | **(0.313)** | **(0.343)** | (0.024) | (0.024) | (0.024) | (0.024) | (0.024) | (0.024) |
| Tenure of family member | 0.085 | 0.095 | 0.059 | 0.065 | 0.115 | 0.101 | **0.038***** | **0.039***** | **0.034**** | **0.033**** | **0.034**** | **0.033** |
| | (0.104) | (0.105) | (0.105) | (0.118) | (0.116) | (0.125) | **(0.012)** | **(0.012)** | **(0.012)** | **(0.012)** | **(0.012)** | **(0.012)** |
| Ownership concentration within family | **0.029**** | **0.021*** | **0.028*** | **0.037*** | **0.038*** | **0.044*** | **0.002*** | **0.002**$^{+}$ | **0.002**$^{+}$ | **0.002**$^{+}$ | **0.002*** | **0.003** |
| | **(0.011)** | **(0.011)** | **(0.014)** | **(0.016)** | **(0.015)** | **(0.017)** | **(0.001)** | **(0.001)** | **(0.001)** | **(0.001)** | **(0.001)** | **(0.001)** |
| Debt/Asset rate | −0.010 | −0.010 | −0.004 | −0.002 | −0.003 | −0.001 | −0.001 | −0.001 | −0.000 | −0.000 | −0.000 | −0.000 |
| | (0.007) | (0.007) | (0.008) | (0.009) | (0.008) | (0.009) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| CEO duality | **3.551***** | **3.675***** | **3.732***** | **4.294***** | **4.039***** | **4.481***** | −0.019 | −0.018 | −0.023 | −0.025 | −0.020 | −0.022 |
| | **(0.331)** | **(0.346)** | **(0.349)** | **(0.431)** | **(0.396)** | **(0.461)** | (0.022) | (0.023) | (0.022) | (0.022) | (0.022) | (0.022) |
| Share held by executive | 7.461 | 7.202 | 6.418 | 5.697 | 6.241 | 5.999 | −0.293 | −0.222 | −0.252 | −0.276 | −0.213 | −0.236 |
| | (7.666) | (7.728) | (7.742) | (8.650) | (8.017) | (8.917) | (0.622) | (0.621) | (0.616) | (0.615) | (0.617) | (0.617) |
| Chairman age | **0.682**$^{+}$ | 0.567 | **0.621**$^{+}$ | **0.823*** | 0.634 | **0.859**$^{+}$ | −0.021 | −0.021 | −0.015 | −0.011 | −0.011 | −0.008 |
| | **(0.356)** | (0.368) | **(0.369)** | **(0.421)** | (0.397) | **(0.440)** | (0.029) | (0.029) | (0.029) | (0.029) | (0.029) | (0.029) |
| Pure close | | **0.902*** | **0.871*** | **1.795**** | **12.409*** | **11.803*** | | **0.142**** | **0.137**** | **0.182***** | **1.253**** | **0.099*** |
| | | **(0.448)** | **(0.445)** | **(0.589)** | **(5.316)** | **(5.775)** | | **(0.049)** | **(0.048)** | **(0.051)** | **(0.456)** | **(0.050)** |

(Continued)

**Table 2.** Continued

| | Family CEO (Probit Model) | | | | | | Nonfamily executive salary (Random Effect Model) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Model 1** | **Model 2** | **Model 3** | **Model 4** | **Model 5** | **Model 6** | **Model 7** | **Model 8** | **Model 9** | **Model 10** | **Model 11** | **Model 12** |
| Close/Distant combination | | **2.064*** ** | **2.033*** ** | **3.896*** ** | **23.577*** ** | **17.854** ** | | **0.147** ** | **0.134** ** | **0.185*** ** | **1.277** ** | **0.102*** |
| | | **(0.490)** | **(0.486)** | **(0.686)** | **(6.334)** | **(6.693)** | | **(0.047)** | **(0.046)** | **(0.052)** | **(0.467)** | **(0.047)** |
| ROA | | | **0.036*** | **0.221*** ** | **0.044*** | **0.205*** ** | | | **0.009*** ** | **0.016*** ** | **0.009*** ** | **0.009*** ** |
| | | | **(0.018)** | **(0.054)** | **(0.020)** | **(0.056)** | | | **(0.002)** | **(0.003)** | **(0.002)** | **(0.002)** |
| Family ownership | | | −0.926 | −1.132 | 1.509 | 0.796 | | | **−0.134**$^{+}$ | **−0.143*** | 0.070 | **−0.163*** |
| | | | (0.729) | (0.822) | (1.154) | (1.274) | | | **(0.070)** | **(0.070)** | (0.103) | **(0.070)** |
| Pure close × ROA | | | | **−0.176** ** | | **−0.156** ** | | | | **−0.009** ** | | **−0.007*** |
| | | | | **(0.057)** | | **(0.060)** | | | | **(0.003)** | | **(0.004)** |
| Close/Distant combination × ROA | | | | **−0.289*** ** | | **−0.257*** ** | | | | **−0.010*** | | **−0.007**$^{+}$ |
| | | | | **(0.066)** | | **(0.071)** | | | | **(0.004)** | | **(0.004)** |
| Pure close × Family ownership | | | | | **−3.016*** | **−2.637**$^{+}$ | | | | | **−0.291*** | **−0.226**$^{+}$ |
| | | | | | **(1.372)** | **(1.499)** | | | | | **(0.118)** | **(0.121)** |
| Close/Distant combination × Family ownership | | | | | **−5.514*** ** | **−3.632*** | | | | | **−0.297*** | **−0.221**$^{+}$ |
| | | | | | **(1.606)** | **(1.726)** | | | | | **(0.120)** | **(0.128)** |
| Number of observation | 1257 | 1257 | 1257 | 1257 | 1257 | 1257 | 1464 | 1464 | 1464 | 1464 | 1464 | 1464 |
| Number of group | 347 | 347 | 347 | 347 | 347 | 347 | 421 | 421 | 421 | 421 | 421 | 421 |
| $\chi^2$ | 140.38*** | 138.05*** | 139.81*** | 119.96** | 129.18*** | 118.35** | 989.92*** | 1007.47*** | 1063.28*** | 1075.11*** | 1075.30*** | 1080.99*** |

Values in bold are significant at $p < .05$.

*Note.* $^{+}p < .1$. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$. Year, industry, province, transition frequency, and education levels of executive coefficients are included in the analysis but omitted from the Table for parsimony. Standard errors are in parentheses.

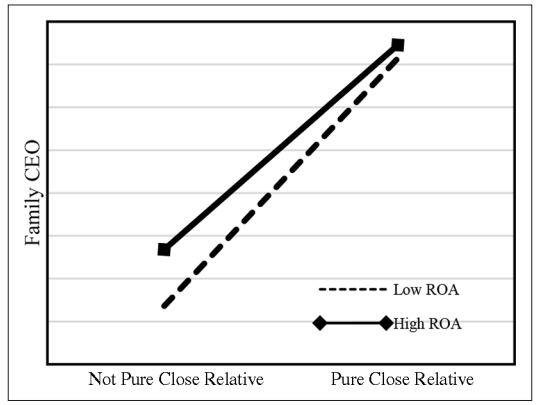


**Figure 2.** Moderating effect of ROA on family CEO (pure close).

which provides further evidence for our argument. The details of these analyses are available by contacting the authors.

## Discussion

Our findings widely support our argument that family firms with closer and more distant kinships differ in the appointment of a family CEO and the compensation of nonfamily executives. Integrating insight from research on evolutionary psychology theory with research on SEW, we argued that family members with closer kinship ties have stronger emotional attachments and higher altruistic inclinations toward each other. Furthermore, those with closer kinship ties have higher SEW gains and a stronger desire and willingness to preserve SEW. Therefore, compared with more-distant-kinship family firms, family firms with closer kinship will be more likely to appoint a family CEO and pay nonfamily executive higher salaries. These proposed hypotheses were confirmed, providing support for the importance of examining kinship ties as a source of heterogeneity among family firms. While the majority of family firms research focuses on family member roles, our research focuses on the degree of genetic closeness between family members and how genetic identity influences individuals' prioritization of financial and SEW goals. We

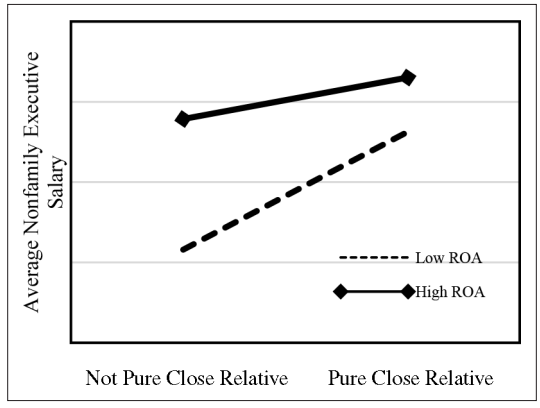


**Figure 3.** Moderating effect of ROA on nonfamily executive salary (Pure Close).

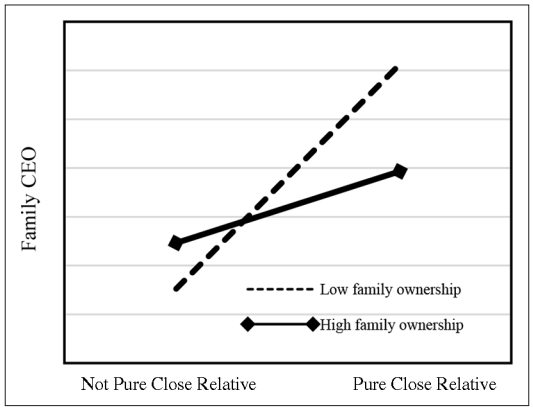


**Figure 4.** Moderating effect of family ownership on family CEO (Pure Close).

also demonstrate how kin selection influences the selection of family versus nonfamily CEOs and nonfamily executive compensation. Lastly, we show that these preferences are influenced by resources (i.e., financial performance and family ownership).

The results on our contingency effects further support the notion that family firms are not a homogeneous group and that family firm heterogeneity needs to be taken into consideration (e.g., Chua et al., 2012; Stanley et al., 2017; Westhead & Howorth, 2007). Regarding firm performance, we found that although closer-kinship family firms are more likely to appoint a family CEO than those with more distant kinships, the differences in family CEO appointment between family firms with closer kinship ties and more distant kinship ties become pronounced under poor firm performance. Furthermore, while family firms with closer kinship ties pay higher salaries to nonfamily executives under different performance conditions, poor firm performance was still shown to have a more negative effect on the salaries of nonfamily executives in more-distant-kinship family firms than in closer-kinship family firms. These findings support our contention that, in comparison to those with more distant kinship ties, closer-kinship family firms increase their nonfamily executive salaries in order to compensate nonfamily executives for limited upward mobility and to ensure that the nonfamily executives work to protect their

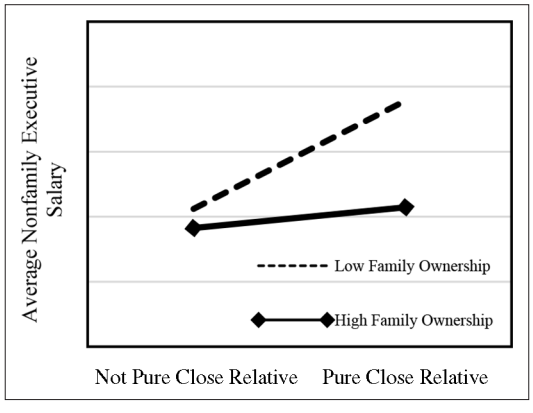


**Figure 5.** Moderating effect of family ownership on nonfamily executive salary (Pure Close).

family's interests and to motivate nonfamily executives to improve firm performance. In summary, family firms with closer kinships appear less sensitive to poor firm performance than those with more distant kinships in regard to the selection of a CEO and nonfamily executive compensation.

Our results of the contingency effect of family ownership further demonstrate differences between family firms with closer and more distant kinships. Specifically, compared with more-distant-kinship family firms, closer-kinship family firms were generally more likely to appoint a family CEO. However, the differences between family firms with closer and more distant kinships become pronounced when the family has low ownership. In situations where family ownership is low, albeit still high enough to significantly influence the first generation family firm based on the nature of the firm under study, and the family's SEW endowment is under threat, close kinship family firms are more willing to appoint a family CEO in order to maintain family control over the firm and preserve SEW compared to distant kinship family firms. Therefore, these results regarding closer-kinship family firms suggest that their strong emphasis on protecting SEW leads them to ensure that they are able to pursue SEW either through ownership or leadership.

For nonfamily executive salaries, we also found a significant difference between family firms with closer and more distant kinships. While there are no significant differences in nonfamily executive salaries between family firms with closer and more distant kinships when the family has high ownership, those with closer kinships pay their nonfamily executives significantly more when family ownership is low. Thus, for closer-kinship family firms, a low level of ownership appears to motivate them to pay nonfamily executives higher salaries in an effort to gain some influence over the firm's operations, encourage the nonfamily executives' commitment and loyalty. These findings regarding nonfamily executives' salaries contribute to research on family firm compensation by demonstrating that not only does the level of family ownership affect compensation (Combs et al., 2010; Gómez-Mejía et al., 2003), but so too does the type of family kinship. From the "willingness and ability" perspective, our results therefore suggest that closer-kinship family firms' strong desire (i.e., *willingness*) to pursue SEW, leads those with low ownership to take measures that will protect their *ability* to pursue SEW, that is, through the appointment of a family CEO and/or by paying their nonfamily executives higher salaries.

Overall, our article makes several contributions to the literature. First, we stress that relationships between family members (i.e., the closeness of kinship ties) serve as an important source of heterogeneity among family firms. Differences in kinship are not only an important building block for the theory of the family firm (Morris & Kellermanns, 2013), but can also help inform the ongoing debate on family firm heterogeneity (e.g., Chua et al., 2012; Stanley et al., 2017; Westhead & Howorth, 2007). Our study highlights the importance of family relationships to family firm heterogeneity and therefore, encourages future research to go beyond the consideration of family members' formal organizational positions (i.e., owner, board member, CEO) to also consider how the family members are related. Thus, our study builds on and extends research that puts the "family" at the front and center (James et al., 2012; Jennings et al., 2014; Powell & Eddleston, 2017).

Second, by integrating insight on genetic distance (i.e., closer versus more distant kinships) from evolutionary psychology with SEW theory, we are better able to explain family firm behavior. While the literature assumes that SEW drives family firm behavior, our findings suggests that due to kinship ties, that either family firms with more distant ties are more interested in economic benefits, or at the very least that they are less able to pursue SEW due to the underlying diversity among the family members and economic preferences are pursued in lieu of the inability to develop coherent noneconomic goals across family members.

## Limitations and Future Research

Inevitably, this study has some limitations. First, this study is conducted in a Chinese context, which may limit its generalizability cross-culturally. Our focus on first-generation family firms in Asia, an under-researched area in the family firm realm (Eddleston, Jaskiewicz, & Wright, 2019), is important. Yet, future research should replicate our study in other cultures and build on our framework by investigating kinship ties on additional outcome variables. For example, gender, which we did not address in our study, may have important implications for family relationships within family firms (e.g., Amore, Garofalo, & Minichilli, 2014). Further, the definition of "family" and who is considered a close relative is likely to vary across cultures (e.g., Verbeke, Yuan, & Kano, forthcoming). We encourage future studies to investigate cross-cultural comparisons to address these potential implications.

Second, while we capture family heterogeneity with our kinship measure and ran multiple robustness tests, we did not explore the impact of how kinship ties are distributed. For example, while some studies focus on father–daughter relationships (e.g., Haberman & Danes, 2007), and have discerned between owner-managed firms, sibling partnerships, and cousin consortiums (Gersick et al., 1997), we do not know how common these or other configurations are (e.g., husband–wife teams; for a dissertation on common family firm configurations, see Tapis, 2011) nor do we know if the different configurations alter the relationships found in our study. Future research should therefore explore how close versus distant kin serving as owners, leaders, and board members affect family firm behavior and, specifically, their prioritization of financial and SEW goals. Furthermore, our article focuses on first-generation family firms (due to the Chinese context). While family firms evolve through different stages (Gersick et al., 1997) and even firms at later stages can show the kinship ties discussed here, kinship relationship at firms at different stages deserve further attention.

Third, we chose to focus on public firms, but future studies should choose unlisted firms to further test our theory and make comparisons. Compared with public firms, unlisted firms receive less monitoring from the government and outside stakeholders. Therefore, the observed effects of kinships on firm management are likely to be even more substantial as the family can choose to be more particularistic (Carney, 2005).

Lastly, while our study builds on research that has studied the compensation of nonfamily members (e.g., Chrisman et al., 2014; Neckebrouck, Schulze, & Zellweger, 2018), we know surprisingly little about what drives the compensation of family members. While some suggest that employing family members is a noneconomic goal consistent with SEW, their pay may also be driven by SEW considerations. Accordingly, future research should investigate the tension between retaining funds in the company and paying family members higher salaries under an SEW lens.

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## Notes

1. In 1990s, some state-owned enterprises are transformed into private firms under the permission of the Chinese government. Hence, though currently private owned, the culture and regulations of those transformed firms are inevitably influenced by their history as a state-owned enterprise.
2. In robust test, we use the logit model to test the kinship effects on family CEO appointment and the population average model to test the kinship effects on nonfamily executive salaries, the results are consistent in both analyses. The results of robust tests are available by contacting the authors.
3. The results of the interactions of close/distant combination firms are available online as supplemental materials, and are also available by contacting the authors.

## References

Ahn, H. -J., Cai, J., Hamao, Y., & Ho, R. Y. K. (2005). Adverse selection, brokerage coverage, and trading activity on the Tokyo stock exchange. *Journal of Banking & Finance*, *29*(6), 1483–1508.

Alessandri, T. M., Cerrato, D., & Eddleston, K. A. (2018a). The mixed gamble of internationalization in family and nonfamily firms: The moderating role of organizational Slack. *Global Strategy Journal*, *8*(1), 46–72.

Alessandri, T. M., Mammen, J., & Eddleston, K. (2018b). Managerial incentives, myopic loss aversion, and firm risk: A comparison of family and non-family firms. *Journal of Business Research*, *91*, 19–27.

Amore, M. D., Garofalo, O., & Minichilli, A. (2014). Gender interactions within the family firm. *Management Science*, *60*(5), 1083–1097.

Arregle, J. -L., Naldi, L., Nordqvist, M., & Hitt, M. A. (2012). Internationalization of Family-Controlled firms: A study of the effects of external involvement in governance. *Entrepreneurship Theory and Practice*, *36*(6), 1115–1143.

Axelrod, R., & Hamilton, W. D. (1981). The evolution of cooperation. *Science*, *211*(4489), 1390–1396.

Bernard, L. C., Mills, M., Swenson, L., & Walsh, R. P. (2005). An evolutionary theory of human motivation. *Genetic, Social, and General Psychology Monographs*, *131*(2), 129–184.

Berrone, P., Cruz, C., & Gómez-Mejía, L. R. (2012). Socioemotional wealth in family firms: Theoretical dimensions, assessment approaches, and agenda for future research. *Family Business Review*, *25*(3), 258–279.

Björnberg, A., & Nicholson, N. (2012). Emotional ownership: The next generation's relationship with the family firm. *Family Business Review*, *25*(4), 374–390.

Boellis, A., Mariotti, S., Minichilli, A., & Piscitello, L. (2016). Family involvement and firms' establishment mode choice in foreign markets. *Journal of International Business Studies*, *47*(8), 929–950.

Burnstein, E., Crandall, C., & Kitayama, S. (1994). Some neo-Darwinian decision rules for altruism: Weighing cues for inclusive fitness as a function of the biological importance of the decision. *Journal of Personality and Social Psychology*, *67*(5), 773–789.

Buss, D. (2015). *Evolutionary psychology: The new science of the mind*. New York: Routledge.

Buss, D. M., & Schmitt, D. P. (2011). Evolutionary psychology and feminism. *Sex Roles*, *64*(9-10), 768–787.

Caporael, L. R. (2001). Evolutionary psychology: Toward a unifying theory and a hybrid science. *Annual Review of Psychology*, *52*(1), 607–628.

Carney, M. (2005). Corporate governance and competitive advantage in family-controlled firms. *Entrepreneurship Theory and Practice*, *29*(3), 249–265.

Chapais, B. (2001). Primate nepotism: What is the explanatory value of kin selection? *International Journal of Primatology*, *22*(2), 203–229.

Charlton, B. G. (1997). The inequity of inequality: Egalitarian instincts and evolutionary psychology. *Journal of health psychology*, *2*(3), 413–425.

Chrisman, J. J., & Patel, P. J. (2012). Variations in R&D investments of family and non-family firms: Behavioral agency and myopic loss aversion perspectives. *Academy of Management journal*, *55*(4), 976–997.

Chrisman, J. J., Memili, E., & Misra, K. (2014). Non-family managers, family firms, and the winner's curse: The influence of non-economic goals and bounded rationality. *Entrepreneurship Theory and Practice*, *38*(5), 1103–1127.

Chrisman, J. J., Sharma, P., Steier, L. P., & Chua, J. H. (2013). The influence of family goals, governance, and resources on firm outcomes. *Entrepreneurship Theory and Practice*, *37*(6), 1249–1261.

Chua, J. H., Chrisman, J. J., & Chang, E. P. C. (2004). Are family firms born or made? An exploratory investigation. *Family Business Review*, *17*(1), 37–54.

Chua, J. H., Chrisman, J. J., Steier, L. P., & Rau, S. B. (2012). Sources of heterogeneity in family firms: An introduction. *Entrepreneurship Theory and Practice*, *36*(6), 1103–1113.

Collin, S. -O. Y., & Ahlberg, J. (2012). Blood in the boardroom: Family relationships influencing the functions of the Board. *Journal of Family Business Strategy*, *3*(4), 207–219.

Combs, J. G., Penney, C. R., Crook, T. R., & Short, J. C. (2010). The impact of family representation on CEO compensation. *Entrepreneurship Theory and Practice*, *34*(6), 1125–1144.

Confer, J. C., Easton, J. A., Fleischman, D. S., Goetz, C. D., Lewis, D. M. G., Perilloux, C., & Buss, D. M. (2010). Evolutionary psychology. controversies, questions, prospects, and limitations. *American Psychologist*, *65*(2), 110–126.

Cosmides, L., & Tooby, J. (2013). Evolutionary psychology: New perspectives on cognition and motivation. *Annual Review of Psychology*, *64*, 201–229.

Daly, M., Salmon, C., & Wilson, M. (2013). Kinship: The conceptual hole in psychological studies of social cognition and close relationships. In C. Salmon & M. Wilson (Eds.), *Evolutionary social psychology* (pp. 265–296). Mahwah, NJ: Lawrence Erlbaum Associates.

Daspit, J. J., Chrisman, J. J., Sharma, P., Pearson, A. W., & Mahto, R. V. (2018). Governance as a source of family firm heterogeneity. *Journal of Business Research*, *84*, 293–300.

Davis, J. N., & Daly, M. (1997). Evolutionary theory and the human family. *The Quarterly Review of Biology*, *72*(4), 407–435.

De Massis, A., Kotlar, J., Wright, M., & Kellermanns, F. W. (2018). Sector-based entrepreneurial capabilities and the promise of sector studies in entrepreneurship. *Entrepreneurship Theory and Practice*, *42*(1), 3–23.

Distelberg, B. J., & Blow, A. (2012). Variations in family system boundaries. *Family Business Review*, *24*(1), 28–46.

Eddleston, K. A., Jaskiewicz, P., & Wright, M. (2019). Family firms and internationalization in the Asia-Pacific: The need for multi-level perspectives. *Asia Pacific Journal of Management*, *18*(5), 1–17.

Eggebeen, D. J., & Hogan, D. P. (1990). Giving between generations in American families. *Human Nature*, *1*(3), 211–232.

Emlen, S. T. (1995). An evolutionary theory of the family. *Proceedings of the National Academy of Sciences*, *92*(18), 8092–8099.

Foster, K. R., Wenseleers, T., & Ratnieks, F. L. W. (2006). Kin selection is the key to altruism. *Trends in Ecology & Evolution*, *21*(2), 57–60.

Ge, J., Stanley, L. J., Eddleston, K., & Kellermanns, F. W. (2017). Institutional deterioration and entrepreneurial investment: The role of political connections. *Journal of Business Venturing*, *32*(4), 405–419.

Gedajlovic, E., Carney, M., Chrisman, J. J., & Kellermanns, F. W. (2012). The adolescence of family firm research: Taking stock and planning for the future. *Journal of Management*, *38*(4), 1010–1037.

Gómez-Mejía, L. R., Cruz, C., Berrone, P., & De Castro, J. (2011). The bind that ties: Socioemotional wealth preservation in family firms. *Academy of Management Annals*, *5*(1), 653–707.

Gómez-Mejía, L. R., Haynes, K. T., Núñez-Nickel, M., Jacobson, K. J. L., & Moyano-Fuentes, H. (2007). Socioemotional wealth and business risk in family-controlled firms: Evidence from Spanish olive oil Mills. *Administrative science quarterly*, *52*(1), 106–137.

Gómez-Mejía, L. R., Tochman Campbell, J., Martin, G., Hoskisson, R. E., Makri, M., & Sirmon, D. G. (2014). Socioemotional wealth as a mixed gamble: Revisiting family firm R&D investments with the behavioral agency theory. *Entrepreneurship and Theory and Practice*, *38*(6), 1351–1374.

Gersick, K. E., Davis, J. A., Hampton, M. M., & Lansberg, I. (1997). *Generation to generation: life cycles of the family business*. Boston, MA: Harvard Business School Press.

Gómez-Mejía, L. R., Larraza-Kintana, M., & Makri, M. (2003). The determinants of executive compensation in family-controlled public corporations. *Academy of Management Journal*, *46*(2), 226–237.

Gómez-Mejía, L. R., Patel, P. C., & Zellweger, T. M. (2018). In the horns of the dilemma: Socioemotional wealth, financial wealth, and acquisitions in family firms. *Journal of Management*, *44*(4), 1369–1397.

Haberman, H., & Danes, S. M. (2007). Father-daughter and father-son family business management transfer comparison: Family FIRO model application. *Family Business Review*, *20*(2), 163–184.

Hair, J. F., Black, B., Babin, B., & Anderson, R. E. (2010). *Multivariate Data Analysis* (6th ed). Upper Saddle River, NJ: Prentice Hall.

Hamilton, W. D. (1964). The genetical evolution of social behaviour. II. *Journal of Theoretical Biology*, *7*(1), 17–52.

Hauswald, H., Hack, A., Kellermanns, F. W., & Patzelt, H. (2016). Attracting new talent to family firms: Who is attracted and under what conditions? *Entrepreneurship Theory and Practice*, *40*(5), 963–989.

Henrich, J., & Gil-White, F. J. (2001). The evolution of prestige: Freely conferred deference as a mechanism for enhancing the benefits of cultural transmission. *Evolution and Human Behavior*, *22*(3), 165–196.

James, A. E., Jennings, J. E., & Breitkreuz, R. S. (2012). Worlds apart?: Rebridging the distance between family science and family business research. *Family Business Review*, *25*(1), 87–108.

Jaskiewicz, P., Block, J. H., Miller, D., & Combs, J. G. (2017). Founder versus family owners' impact on pay dispersion among non-CEO top managers: Implications for firm performance. *Journal of Management*, *43*(5), 1524–1552.

Jennings, J. E., Breitkreuz, R. S., & James, A. E. (2014). Theories from family science: A review and roadmap for family business research. In L. Melin, M. Nordqvist, & P. Sharma (Eds.), *The SAGE Handbook of Family Business* (pp. 25–46). Los Angeles: Sage.

Jensen, M. C., & Murphy, K. J. (1990). Performance pay and top-management incentives. *Journal of Political Economy*, *98*(2), 225–264.

Kellermanns, F. W., Eddleston, K., & Zellweger, T. (2012). Extending the socioemotional wealth perspective: A look at the dark side. *Entrepreneurship: Theory & Practice*, *36*(6), 1175–1182.

Korchmaros, J. D., & Kenny, D. A. (2001). Emotional closeness as a mediator of the effect of genetic relatedness on altruism. *Psychological Science*, *12*(3), 262–265.

Kotlar, J., Signori, A., De Massis, A., & Vismara, S. (2018). Financial wealth, socioemotional wealth, and IPO underpricing in family firms: A two-stage gamble model. *Academy of Management journal*, *61*(3), 1073–1099.

La Porta, R., Lopez-De-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *The Journal of Finance*, *54*(2), 471–517.

Lewis, D. M. G., Al-Shawaf, L., Conroy-Beam, D., Asao, K., & Buss, D. M. (2017). Evolutionary psychology: A how-to guide. *American Psychologist*, *72*(4), 353–373.

Madsen, E. A., Tunney, R. J., Fieldman, G., Plotkin, H. C., Dunbar, R. I. M., Richardson, J. -M., & McFarland, D. (2007). Kinship and altruism: A cross-cultural experimental study. *British Journal of Psychology*, *98*(Pt 2), 339–359.

Miller, D., Breton-Miller, L, I., & Scholnick, B. (2008). Stewardship vs. stagnation: An empirical comparison of small family and non-family businesses. *Journal of Management Studies*, *45*(1), 51–78.

Miller, D., Minichilli, A., & Corbetta, G. (2013). Is family leadership always beneficial? *Strategic Management Journal*, *34*(5), 553–571.

Mitchell, M., Pulvino, T., & Stafford, E. (2002). Limited arbitrage in equity markets. *The Journal of Finance*, *57*(2), 551–584.

Morris, M. L., & Kellermanns, F. W. (2013). Family relations and family businesses: A note from the Guest editors. *Family Relations*, *62*(3), 379–383.

Mulder, M. B. (2007). Hamilton's rule and kin competition: The Kipsigis case. *Evolution and Human Behavior*, *25*(5), 299–312.

Neckebrouck, J., Schulze, W., & Zellweger, T. (2018). Are family firms good employers? *Academy of Management Journal*, *61*(2), 553–585.

Neyer, F. J., & Lang, F. R. (2003). Blood is thicker than water: Kinship orientation across adulthood. *Journal of Personality and Social Psychology*, *84*(2), 310–321.

Nicholson, N. (1997). Evolutionary psychology: Toward a new view of human nature and organizational society. *Human Relations*, *50*(9), 1053–1078.

Nicholson, N. (2008a). Evolutionary psychology and family business: A new synthesis for theory, research, and practice. *Family Business Review*, *21*(1), 103–118.

Nicholson, N. (2013). Evolutionary theory: A new synthesis for family business thought and research. In L. Melin, M. Nordqvist, & P. Sharma (Eds.), *The SAGE Handbook of family business*. New York: Sage.

Nicholson, N. (2008b). Evolutionary psychology, organizational culture, and the family firm. *Academy of Management Perspectives*, *22*(2), 73–84.

Nicholson, N. (2015). Primal business: Evolution, kinship, and the family firm. In S. M. Colarelli & R. D. Arvey (Eds.), *The biological foundations of organizational behavior* (pp. 237–267). Chicago: University of Chicago Press.

Powell, G. N., & Eddleston, K. A. (2017). Family involvement in the firm, family-to-business support, and entrepreneurial outcomes: An exploration. *Journal of Small Business Management*, *55*(4), 614–631.

Schmid, T., Ampenberger, M., Kaserer, C., & Achleitner, A. -K. (2015). Family firm heterogeneity and corporate policy: Evidence from diversification decisions. *Corporate Governance: An International Review*, *23*(3), 285–302.

Schulze, W. S., Lubatkin, M. H., Dino, R. N., & Buchholtz, A. K. (2001). Agency relationships in family firms: Theory and evidence. *Organization Science*, *12*(2), 99–116.

Smith, M. S., Kish, B. J., & Crawford, C. B. (1987). Inheritance of wealth as human kin investment. *Ethology and Sociobiology*, *8*(3), 171–182.

Stanley, L. J., Kellermanns, F. W., & Zellweger, T. (2017). Latent profile analysis: Understanding family firm profiles. *Family Business Review*, *30*(1), 84–102.

Stewart, A. (2003). Help one another, use one another: Toward an anthropology of family business. *Entrepreneurship: Theory & Practice*, *27*(4), 383–396.

Tabor, W., Chrisman, J. J., Madison, K., & Vardaman, J. M. (2018). Nonfamily members in family firms: A review and future research agenda. *Family Business Review*, *31*(1), 54–79.

Tapis, G. (2011). The influence of the physical environment and culture on family member involvement and succession intentions in the family business: An application of historical, cultural and political ecology. *Mississippi State University*.

Verbeke, A., & Kano, L. (2012). The transaction cost economics theory of the family firm: Family based human asset specificity and the bifurcation bias. *Entrepreneurship Theory & Practice*, *36*(6), 1183–1205.

Verbeke, A., Yuan, W., & Kano, L. (forthcoming). A values-based analysis of bifurcation bias in family firms. *Asia-Pacific Journal of Management*.

Vollan, B. (2011). The difference between kinship and friendship: (field-) experimental evidence on trust and punishment. *The Journal of Socio-Economics*, *40*(1), 14–25.

West, S. A., & Gardner, A. (2010). Altruism, spite, and greenbeards. *Science*, *327*(5971), 1341–1344.

West, S. A., Griffin, A. S., & Gardner, A. (2007). Social semantics: Altruism, cooperation, mutualism, strong reciprocity and group selection. *Journal of Evolutionary Biology*, *20*(2), 415–432.

Westhead, P., & Howorth, C. (2007). 'Types' of private family firm: An exploratory conceptual and empirical analysis. *Entrepreneurship and Regional Development*, *19*(5), 405–431.

White, L. K., & Riedmann, A. (1992). When the Brady bunch grows up: Step/Half- and Fullsibling relationships in adulthood. *Journal of Marriage and the Family*, *54*(1), 197–208.

Wright, P., Kroll, M., & Elenkov, D. (2002). Acquisition returns, increase in firm size, and chief executive officer compensation: The moderating role of monitoring. *Academy of Management journal*, *45*(3), 599–608.

Yang, C., Colarelli, S. M., Han, K., & Page, R. (2011). Start-up and hiring practices of immigrant entrepreneurs: An empirical study from an evolutionary psychological perspective. *International Business Review*, *20*(6), 636–645.

Zhao, J., Carney, M., Zhang, S., & Zhu, L. (2018). How does an intra-family succession effect strategic change and performance in China's family firms? *Asia Pacific Journal of Management*, 1–27.

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