This study examines CEO influence in the board of
director selection process and the theoretical mechanism
by which CEO influence is presumed to affect
subsequent board decision making on CEO
compensation. We address both of these issues by
linking political and social psychological perspectives on
organizational governance. We propose that powerful
CEOs seek to appoint new board members who are
demographically similar, and therefore more
sympathetic, to them. Using a longitudinal research
design and data on 413 Fortune/Forbes 500 companies
from 1986 to 1991, we examine whether increased
demographic similarity affects board decision making
with respect to CEO compensation contracts. The results
show that (1) when incumbent CEOs are more powerful
than their boards of directors, new directors are likely
to be demographically similar to the firm’s CEO; (2)
when boards are more powerful than their CEOs, new
directors resemble the existing board; and (3) greater
demographic similarity between the CEO and the board
is likely to result in more generous CEO compensation
contracts. We discuss the implications of the strong
effect of demographic similarity for corporate control
issues.

INTRODUCTION

The relative control of corporate boards of directors over
management has long been a subject of theoretical analysis
and debate in the organization theory, economics, and
management literatures (e.g., Herman, 1981; Fama and
question is whether boards are an effective management
control mechanism (Fama and Jensen, 1983), or whether
they are a “management tool” (Pfeffer, 1972: 219), a rubber
stamp for management initiatives (Herman, 1981), and often
surrender to management their major domain of
decision-making authority, which includes the right to hire,
fire, and compensate top management (Vance, 1983; Zajac,
1990).

While a variety of factors may facilitate management control
over the board, the chief executive officer’s (CEO’s)
dominance over the director selection process has often
been considered a primary source of management control
(Mace, 1971; Pfeffer, 1972; Kosnik, 1987). Bacon and
Brown (1975: 28) concluded that “by and large, the chief
executive controls who will come on the board while he is in
power.” More recently, in one of the few large-sample
surveys of Fortune 500 directors, Lorsch and Maclver (1989:
21) reported that boards often have only limited influence
over the new director nomination process. Finally, Wade,
O’Reilly, and Chandratat (1990: 593) have suggested that
CEOs enhance their influence over the board by appointing
outside directors “sympathetic to [their] desires.” While this
view seems plausible, it raises several issues that require
additional research attention. First, there is very little
large-sample, empirical evidence regarding CEOs’ role in the
selection of new directors. Second, the theoretical basis for
assuming that recently appointed outside directors are more
likely to be sympathetic to the desires of CEOs is not yet fully understood. The present study seeks to address both of these issues by showing how CEO control over the selection of new directors can increase subsequent compliance among board members. Specifically, we propose that a combination of social psychological and sociopolitical factors lead CEOs and existing board members to favor new directors who are demographically similar to them and that the relative influence of CEOs and existing boards will predict who is more likely to realize their respective preferences.

The study then addresses an important and tangible potential consequence of increased demographic similarity between the CEO and the board for board decision making: whether increased similarity results in a more generous level and mix of compensation in CEOs’ contracts. The study links sociopolitical and social psychological perspectives on organizational governance and tests hypotheses on the antecedents and consequences of increased demographic similarity using longitudinal data on new director characteristics and change in CEO compensation among 413 Fortune/Forbes 500 companies from 1986 to 1991.

Demographic Similarity between the CEO and New Directors

Social psychological studies on performance evaluation and hiring practices consistently find bias in evaluation decisions in which the parties are demographically similar. In experimental and field research on hiring decisions, studies have demonstrated a positive relationship between applicant-rater similarity and the perceived quality of the applicant (Baskett, 1973; Wexley and Nemiroff, 1974). Additional evidence suggests that similarity frequently enhances interpersonal attraction (Byrne, Clore, and Worochel, 1966; Byrne, 1971). Early interpretations of these findings invoked a reinforcement model, arguing that similarity provides mutual reinforcement or “consensual validation” of each individual’s beliefs (Byrne, Clore, and Worochel, 1966: 223), thus enhancing interpersonal attraction and producing bias in evaluation decisions.

More recently, theorists have used self-categorization theory (Tajfel and Turner, 1986; Turner, 1987) to explain the social psychological effects of demographic similarity (Jackson, Stone, and Alvarez, 1992; Tsui, Egan, and O’Reilly, 1992). From this perspective, people derive self-esteem and self-identity from perceived group membership. Given that demographic similarity provides a salient basis for group membership (Tsui, Egan, and O’Reilly, 1992), people may favor (e.g., prefer to hire) demographically similar individuals. Alternatively, people may seek to construct or maintain homogeneous groups in order to increase the salience of group membership, thus maintaining or enhancing their self-esteem and identity. This argument is consistent with the reinforcement perspective discussed above. Thus, according to both the similarity-attraction principle and self-categorization theory, incumbent CEOs should prefer demographically similar individuals for positions on the board.

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These social psychological mechanisms can be quite powerful. Research has consistently shown that minimal categorizations (i.e., group categorizations based on irrelevant criteria) are sufficient to produce in-group bias, or discrimination toward in-group members (Tajfel and Turner, 1986; Messick and Mackie, 1989). Thus bias can occur even when CEOs strive to evaluate candidates on the basis of objective qualifications. CEOs may also favor similar board candidates for sociopolitical reasons. For instance, by deliberately identifying or promoting people with similar philosophies on strategy and administration, CEOs can subtly enhance board support for their initiatives and decisions or minimize the risk of dissension. Advocates of board reform have expressed concern over this potentiality, because a CEO could “use [his or her control over the nomination process] to choose board members who, at the very least, are not antagonistic to what he/she chooses to do” (Bacon and Brown, 1975: 29).

Similarly, CEOs may favor people with compatible leadership and communication styles, thus facilitating interaction and communication with the board (Wagner, Pfeffer, and O’Reilly, 1984; O’Reilly, Caldwell, and Barnett, 1989; Zenger and Lawrence, 1989). Kanter (1977: 58) made a similar argument about management promotion criteria: “One way to ensure acceptance and ease of communication was to limit managerial jobs to those who were socially homogenous. Social certainty, at least, could compensate for some of the other sources of uncertainty in the tasks of management.” Further, difficulties in communication and interaction may heighten conflict and power struggles between the CEO and the board (Pfeffer, 1983; Alexander, Fennell, and Halpern, 1993). Although CEOs could prevail in these contests and enhance their power, board members clearly have an advantage in overt conflict, namely, their formal authority over management. Thus, in addition to endorsing candidates with similar attitudes and philosophies, CEOs may favor people with whom they can communicate easily should disagreements arise.

This study examines attitudinal and behavioral similarity in terms of similarity of particular demographic attributes. As noted by Pfeffer (1983), demographic variables furnish parsimonious representations of constructs that are otherwise difficult to collect and validate, especially for corporate directors and top management. Recent research employing demographic variables in the study of top management includes Bantel and Jackson (1989), Chaganti and Sambharya (1987), Finkelstein (1992), Figgie (1987), Michiel and Hambrick (1992), and Wiersma and Bantel (1992). These studies, and the organizational demography literature more broadly, view demographically similar individuals as developing comparable attitudes and a shared language by virtue of common experiences and similar choices (Rhodes, 1983; Useem and Karabel, 1986). A number of specific demographic characteristics are particularly salient in assessing demographic similarity between CEOs and their boards.

**Functional background similarity.** A number of empirical studies have established a link between functional
background and specific attitudes or behavioral tendencies. In a seminal study, Dearborn and Simon (1958) found evidence that executives selectively perceive and identify company problems depending on their functional area, suggesting that executives with primary experience in a particular functional area tend to have similar viewpoints on the sources of poor performance. Recently, Waller, Huber, and Glick (1995) found that top executives were more aware of changes in organizational effectiveness related to their own functional backgrounds; for instance, executives with a functional background in operations were more sensitive to changes in operational efficiency for the organization. Thus, functional background may influence executives’ perceptions and beliefs about the most important strategic issues facing the firm. Moreover, Hitt and Tyler (1991) showed that experience in particular functional areas predicted differences in executives’ strategic evaluations of possible acquisitions, indicating that functional background can influence executives’ opinions or attitudes about important strategic decisions facing the firm.

In general, CEOs and directors sharing a particular functional background are thought to develop common schemata or belief structures relevant to strategic decision making (Dearborn and Simon, 1958; Walsh, 1988), prompting them to diagnose strategic issues comparably and prefer similar solutions (Hambrick and Mason, 1984; Bantel and Jackson, 1989). Moreover, although little direct evidence is available, several authors have suggested that functional background itself provides a salient basis for executive selection (Pfeffer, 1981; Useem and Karabel, 1986) or for psychologically differentiating oneself from others more generally (e.g., Tsui, Egan, and O’Reilly, 1992). As a result, differences in functional experience can lead decision makers to perceive dissimilarity, independent of actual attitudinal or behavioral dissimilarity.

**Age similarity.** Empirical research has demonstrated a relationship between age and a variety of work-related attitudes, including attitudes toward risk (Rhodes, 1983). Vroom and Pahl (1971) found a negative relationship between age and the value placed on risk in a sample of corporate managers, and Hitt and Tyler (1991) found similar results for top executives. Thus, as noted by Hambrick and Mason (1984), since risk posture is an important element of corporate strategy (Beatty and Zajac, 1994), age differences should predict differences in top managers’ beliefs about the proper strategic direction for the firm. In fact, Hitt and Tyler (1991) found that age significantly predicted variation in executives’ strategic evaluations of possible acquisitions. There is also evidence for a relationship between age and specific behavioral tendencies, such as managerial decision-making style. Taylor (1975) found that older executives sought more information before making decisions and took more time in making them. Wagner, Pfeffer, and O’Reilly (1984) noted that CEOs and directors of the same age cohort may hold a variety of work-related and non-work-related experiences in common, leading to shared attitudes and belief structures. There is also evidence that age itself provides a salient basis for group categorization.
(Stangor et al., 1992), so that differences in age can create the perception of dissimilarity, independent of underlying attitudinal or behavioral differences.

**Educational level similarity.** Empirical research has linked educational level with a high capacity for information processing (Schroder, Driver, and Streufert, 1967), tolerance of ambiguity (Dollinger, 1984), and leadership style (Pinder and Pinto, 1974). Other research has provided more indirect evidence for a relationship between educational background and underlying attitudes or behaviors relevant to strategic decision making. Several studies have shown a relationship between education level and the rate of corporate innovation, or the likelihood of strategic change (e.g., Bantel and Jackson, 1989; Wiersema and Bantel, 1992). Advanced management education, in particular, may inculcate common beliefs and taken-for-granted assumptions about normative or proper strategic decision making (Hambrick and Mason, 1984). Hambrick and Mason (1984) also suggested that advanced education both encourages and indicates a preference for administrative complexity. Finally, Tsui, Egan, and O'Reilly (1992) have suggested that educational background itself provides a salient basis for psychological group identification (Tajfel and Turner, 1986), so that differences in education can create the perception of dissimilarity independent of actual attitudinal or behavioral differences.

**Similarity in insider/outside status.** Executives with long tenures in a firm undergo common socialization experiences and experience similar work demands, thus developing common attitudes, management styles, and individual competencies (Pfeffer, 1983; Alderfer, 1986; Michel and Hambrick, 1992). Whereas insiders have acquired greater firm-specific knowledge than outsiders (Lorsch and Maclver, 1989: 81), the outsiders are more aware of alternative strategic approaches and technologies employed by other firms (cf., Fama and Jensen, 1983). Thus, as a result of different socialization experiences and knowledge bases indicated by insider/outside status, outside directors and CEOs hired from outside the organization may be more likely to recognize opportunities for change in existing strategies or operational norms (cf., Dalton and Kesner, 1985), whereas directors and CEOs with longer organizational tenures tend to favor the status quo (Hambrick, Geletknycz, and Fredrickson, 1993). Finally, given that the presumed differences between insiders and outsiders are well known to board members and top managers (cf., Vancil, 1987; Lorsch and Maclver, 1989), this characteristic should provide a very salient basis for group differentiation.

In general, based on the arguments developed above, CEOs should favor new director candidates who are similar in one or more of these characteristics, but whether they can act on their preferences in the director selection process depends on two factors: (1) While CEOs may prefer new directors who are demographically similar to them, CEOs also must have the requisite power vis-à-vis the existing board to act on these preferences and influence the new director selection process; and (2) existing boards may have their own preferences about new directors, also seeking to
select candidates who are demographically similar to them, and their ability to influence the selection process will depend on their power relative to the CEOs'.

Demographic Similarity and CEO vs. Board Power

Although it is typically assumed that CEOs control the nominating process, so that the characteristics of new directors often resemble those of the CEO, it is also possible that relatively powerful boards appoint directors who reflect their own demographic makeup, thus attenuating the similarity between CEOs and new directors. One would expect that the subconscious, social psychological mechanisms leading CEOs to favor demographically similar director candidates would also influence the preferences of existing board members. Furthermore, to the extent that cohesive and united boards are better able to resist CEO influence (Alderfer, 1986), current directors may have an incentive to increase the homogeneity of board members by appointing demographically similar new directors. Thus, as with CEOs, both social psychological and political motivations may impel board members to favor demographically similar board candidates.

While it is often argued that CEOs typically control the nominating process, board involvement may be high in some companies. In Lorsch and Maclver's (1989) survey, the nominating committee played an important role in identifying director candidates in about one-third of the companies (see also Mace, 1971). CEOs and boards may effectively compete for their own kind of demographically similar new directors, and the success of either will depend on how much power or influence each has with respect to the other. A number of factors affect the distribution of power between the CEO and the board and are therefore likely to affect demographic similarity between incumbent CEOs and new directors, on the one hand, and between existing boards and new directors, on the other.

Insider ratio. Most researchers and advocates of board reform typically assume that outside directors will be less conciliatory toward CEOs (Lorsch and Maclver, 1989; Beatty and Zajac, 1994). Insider-dominated boards imply problematic board control over the CEO, since the CEO may be in a position to influence an inside director's career advancement within the firm. Thus insiders may be more willing to accommodate CEOs' preferences about new directors. Even if one disputes Fama and Jensen's (1983) view of outside directors as professional referees and experts in internal organizational control and views them, instead, as socially dependent on the CEO (Wade, O'Reilly, and Chandratat, 1990), a heavy use of inside directors (i.e., top managers) still indicates comparatively weak board control over the CEO. Thus when boards are predominantly made up of outside directors, they are better able to constrain CEOs' preferences and act on their own preferences. This logic suggests the following related hypotheses:

Hypothesis 1a (H1a): The higher the ratio of inside directors to total directors, the greater the similarity between the CEO and new directors.
Hypothesis 1b (H1b): The lower the ratio of inside directors to total directors, the greater the similarity between existing board members and new directors.

Separate CEO and board chair positions. Managerial hegemony theorists and advocates of board reform have also long argued that when the CEO is also the board chair, it restricts the board’s independence and increases CEO power (Vance, 1983; Crystal, 1991; Rechner and Dalton, 1991). In terms of selecting new directors, CEOs holding both positions have greater informal stature and heightened formal authority over board members (Harrison, Torres, and Kukalis, 1988), potentially minimizing the board’s role in conducting or monitoring the director selection process (Rechner and Dalton, 1991). When the CEO and board chair positions are split, the board should have more power and, thus, influence in new director selection. This suggests the following hypotheses:

Hypothesis 2a (H2a): A dual position of CEO and board chairman is positively associated with demographic similarity between the CEO and new directors.

Hypothesis 2b (H2b): Separation of the CEO and board chair positions is positively associated with demographic similarity between existing board members and new directors.

Relative tenure. Several studies have hypothesized an effect for relative tenure (i.e., the tenure of board members relative to the CEO’s tenure) on board power (e.g., Singh and Harianto, 1989; Wade, O’Reilly, and Chandratat, 1990). Long tenure as CEO or corporate director confers expert power through an increased familiarity with the firm’s resources and methods of operation (Zald, 1969; Alderfer, 1986; Singh and Harianto, 1989; Finkelstein, 1992). Moreover, CEOs with high tenure may acquire a “personal mystique or patriarchy” (Finkelstein and Hambrick, 1989: 124), resulting in sanctions against questioning the CEO’s authority. Finally, as discussed above, low-tenured directors who were appointed after the current CEO took office may feel beholden to or sympathetic toward the incumbent CEO (Finkelstein and Hambrick, 1989; Wade, O’Reilly, and Chandratat, 1990). Therefore, we hypothesize:

Hypothesis 3a (H3a): The higher the CEO’s tenure relative to the board’s (average) tenure, the greater the similarity between the CEO and new directors.

Hypothesis 3b (H3b): The lower the CEO’s tenure relative to the board’s (average) tenure, the greater the similarity between existing board members and new directors.

Directors’ stock ownership. From an agency perspective (Fama and Jensen, 1983), board members should actively monitor the director nomination process to protect shareholder interests. When directors own stock, the interests of board members are more closely aligned with the interests of shareholders, providing directors with an additional incentive to challenge CEOs’ new director recommendations, suggest alternative candidates, and work toward establishing greater board control over the nomination process. Moreover, voting rights afford additional power to owner-directors, and this power increases with the portion of total shares held (Zald, 1969; Finkelstein, 1992). In general, as Mace (1971: 195) suggested, “if one or more
existing directors own or represent the ownership of substantial stock, the president’s de facto power to select new directors may be challenged. In these cases the stock-owning directors are interested in adding new directors of their choice.” Therefore:

**Hypothesis 4a (H4a):** The lower the stock ownership held by board members, the greater the similarity between the CEO and new directors.

**Hypothesis 4b (H4b):** The higher the stock ownership held by board members, the greater the similarity between existing board members and new directors.

**Demographic Similarity and CEO Compensation**

Demographic similarity between a CEO and the board may have important consequences for board decision making. This study examines its effect on CEO compensation policy. In effect, changes in CEO compensation contracts can be viewed as tangible manifestations of change in the demographic similarity of CEOs and their boards. While an agency perspective suggests that changes in top executive compensation will reflect changes in firm performance, there is considerable debate about the strength of the CEO pay-performance relationship (cf., Jensen and Murphy, 1990). As a result, theorists have increasingly explored behavioral explanations for the board’s apparent failure to align pay with performance, such as that CEOs may rely on social influence tactics and norms of reciprocity to control the compensation-setting process (e.g., Finkelstein and Hambrick, 1988; Wade, O’Reilly, and Chandratat, 1990). We propose that relatively powerful CEOs may also affect the compensation-setting process more indirectly, by using their influence over the director nomination process to increase demographic similarity between them and board members, thus encouraging less critical board evaluations of CEO performance.

In evaluating CEOs, boards can attribute firm performance either to management or to uncontrollable factors in the firm’s environment (Walsh and Seward, 1990; Kerr and Kren, 1992). The attribution of firm performance is an “ill-structured, complex problem” (Walsh, 1988: 873), and as a result, directors may rely on belief structures (Walsh, 1988) or cognitive schemata (Norman, 1976) in evaluating CEO behavior. To the extent that CEOs and board members share similar schemas or beliefs about the proper strategic direction for the firm (as indicated by demographic similarity), directors may attribute relatively good performance to the CEO’s strategic wisdom, while attributing poor performance to environmental factors beyond management’s control.

In addition, the performance appraisal literature has consistently demonstrated that greater similarity in demographic characteristics between superiors and subordinates is associated with more favorable performance evaluations (Mobley, 1982; Pulakos and Wexley, 1983; Tsui and O’Reilly, 1989). Thus the increased possibility of biased performance appraisals and exaggerated perceptions of the value of a CEO that accompany relatively high demographic similarity between CEOs and boards may lead to more generous increases in total CEO compensation.
Increased demographic similarity between the CEO and the board may also affect the form or mix of CEO compensation by reducing the perceived need for performance-contingent CEO compensation. From an agency theory perspective, incentives that make CEO pay contingent on future firm performance are a primary mechanism by which firms reduce the so-called agency problem that arises in large corporations (Jensen and Meckling, 1976; Larcker, 1983). Such compensation includes stock options and performance plans that award shares of common stock or cash to the extent that specific performance goals are met (Jarrell, 1993). Given that demographic similarity enhances interpersonal trust (Kanter, 1977; Useem and Karabel, 1986), the perceived need to minimize shirking behavior and otherwise control CEO decision making with contingent compensation may be diminished when demographic similarity between the CEO and board is high. Thus increased similarity may lead to a decrease in the portion of total compensation that is contingent on firm performance, as well as an increase in total compensation.

More generally, while traditional indicators of CEO influence over the board, such as those discussed earlier, may still have a direct effect on CEO compensation arrangements, greater demographic similarity with board members may represent an additional, more subtle mechanism by which powerful CEOs affect their compensation. This discussion suggests the following related hypotheses:

**Hypothesis 5a (H5a):** Increases in demographic similarity between the CEO and the board will be positively associated with increases in CEO compensation.

**Hypothesis 5b (H5b):** Increases in demographic similarity between the CEO and the board will be negatively associated with increases in contingent compensation.

**METHOD**

**Sample and Data Collection**

This study uses a longitudinal research design to examine new director selection and change in CEO compensation from 1987 to 1990. The population includes the largest U.S. industrial and service firms, as listed in the 1987 Forbes and Fortune 500 indexes. The Forbes 500 uses multiple lists whose overlap depends on the specific size measure used. This study used those firms that appeared on lists of at least two size measures. Firms were excluded from the final sample if complete demographic data were unavailable for more than one-quarter of the outside directors in each year. This procedure yielded 413 companies. T-tests revealed no significant differences in size (measured as sales and number of employees) or performance (measured as return on assets and total stock returns) between the initial and final samples. Firms in this sample range in size from $487 million to $63 billion in sales and include both single-product firms and highly diversified conglomerates.

Demographic data were obtained from the *Dun and Bradstreet Reference Book of Corporate Management, Standard and Poor’s Register of Corporations, Directors, and Executives,* and *Who’s Who in Finance and Industry.* Data
on board structure, ownership, and compensation were obtained from corporate proxy statements, and data from COMPSTAT and CRSP were used to calculate performance and size measures. Data on director characteristics, CEO and board influence, and CEO compensation were collected for the years 1986 to 1991, inclusive. Directors were classified as “new” if they were listed in the Standard and Poor’s Register in the current year but not in the prior year; new director status was corroborated with information from the Dun and Bradstreet Reference Book. This approach yielded a sample of 1,113 new directors for the period 1987 to 1990.

Dependent Variables

Demographic similarity. To develop measures of similarity between the new director and the CEO and board, we first created categorical measures for functional background, educational background, and insider/outsider status. Following Hambrick and Mason (1984) and others (e.g., Miles and Snow, 1978; Chaganti and Sambharya, 1987), we consolidated the various functional backgrounds into three core areas: output functions, which include marketing and sales; throughput functions, which include operations, R&D, and engineering; and peripheral functions, primarily law, finance, and accounting. We created a trichotomous measure of functional background, coded as one if the new director had primary experience in operations, engineering, or research and development, two if the new director had experience in marketing or sales, and zero if the new director’s primary experience lay in peripheral functions. Each director’s primary functional area was determined as the area in which he or she had the most experience (Chaganti and Sambharya, 1987).

We followed prior research (e.g., Chaganti and Sambharya, 1987; Murray, 1989; Michel and Hambrick, 1992) in assessing functional background primarily according to an individual’s current and prior job titles, while also considering other aspects of his or her employment history, such as organizations worked for. When possible, we examined information from more than one data source in coding this variable. Although coding functional background entails a degree of subjectivity, Michel and Hambrick (1992) found a high correlation (.86) between the ratings of two different sets of coders. To ensure that reliability was similarly high in this case, we correlated the ratings of two different coders for a random sample of 75 directors. The correlation was .88, suggesting very high reliability.

To measure insider/outsider status of directors, we created a binary variable, coded as one if the director was not an employee of the organization, and zero otherwise. We coded CEOs as outsiders if they were not employed by the company or any of its subsidiaries prior to becoming CEO, consistent with prior research and common usage of the term among CEOs and directors themselves (Dalton and Kesner, 1985). Educational background was divided into four categories: (1) less than a bachelor’s degree; (2) less than a master’s degree; (3) less than a doctoral degree; and (4) a doctoral degree. The age of new directors was operationalized as a continuous variable.
To test hypotheses relating CEO and board influence to demographic similarity between CEOs and new directors, we created several dichotomous measures of similarity. Each variable was coded as one if the CEO and new director shared the same demographic category. For instance, functional background similarity (CEO) was coded as one if both the CEO and new director had primary experience in the same functional area, as defined above. Educational level similarity (CEO) was created similarly. Age similarity (CEO) was coded as one if the CEO and new director differed by less than one standard deviation (7.8 years, calculated from the pooled sample of directors). Finally, insider/outsider status similarity (CEO) was coded as one if CEOs and new directors were both insiders or outsiders, and zero otherwise.

To assess the effect of CEO and board influence on the demographic similarity between existing board members and new directors, we created four continuous measures of similarity, using information on board members in the year the new director is appointed. In general, similarity between the board and the new director was assessed by aggregating similarity measures of all board-member-new-director dyads. Age similarity (board) was measured with an analog of the Euclidean distance measure (i.e., the coefficient of variation) commonly used in research on organizational demography (Wagner, Pfeffer, and O’Reilly, 1984; O’Reilly, Caldwell, and Barnett, 1989):

$$\left[ \sum_{i=1}^{n} \frac{(S_i - S_j)^2}{n} \right]^{1/2}$$

where $S_i$ is the new director’s age, $S_j$ indicates the age of existing board member $j$ (excluding the CEO), and $n$ represents the number of existing board members. This measure was converted to an indicator of similarity by subtracting each firm’s coefficient from the highest value in the sample.

For the categorical variables, we applied a variant of Blau’s (1977) index of heterogeneity, defined as $(P_i)^2$, where $P_i$ is the proportion of CEO-board-member dyads sharing the $i$th category (Murray, 1989). Thus, functional background similarity (board) between a new director and existing board members indicates the squared proportion of CEO-board-member dyads in which both individuals have primary experience in the same core, functional area; educational level similarity (board) and insider/outsider status similarity (board) were calculated in the same way.

While the concept of board-new-director similarity may be less meaningful if the board itself is highly diverse, it seems reasonable to assume that if some pattern exists—even if only a slight tendency—in the distribution of values of a demographic characteristic among board members for some cases in the sample, the concept of board-new-director similarity is meaningful and our hypotheses can be tested. Similarly, we need only assume that CEOs and existing board members are not themselves highly similar, and thus do not hold identical preferences, in all cases. Given this,
including cases in which the CEO is similar to a majority of existing board members on a given characteristic provides a conservative test.

**Compensation.** Total compensation comprises base salary, annual bonus, and the total value of long-term incentives granted in a given year (Crystal, 1984). Stock options were valued using the Black-Scholes (1973) method, which estimates option value based on the historical price volatility of the underlying security. Other grants, such as restricted stock and performance shares, were valued according to the market price at date of grant (Ellig, 1984). All compensation values were adjusted for inflation to represent 1990 constant dollars using the CPI. Change in total compensation was measured as the logarithm of compensation in the subsequent year minus the same measure in the prior year (Kerr and Kren, 1992). While change in compensation could also be measured from $t - 1$ to $t$, rather than $t - 1$ to $t + 1$, the calculation used here eliminates the possibility that increases in similarity occurred after compensation decisions were made in a given year. This measure indicates the growth rate in total compensation.

Compensation contingency was calculated for each year as the total value of long-term incentive grants divided by total compensation. Change in compensation contingency was calculated for each year as contingency in the subsequent year minus contingency in the prior year. Short-term bonuses were not included in this measure because they are notoriously vulnerable to tampering (Larcker, 1983). Although long-term incentives can be manipulated by lowering the strike price of a stock option or lowering the performance threshold for payouts under a performance plan, with the exception of a few celebrated cases (e.g., Apple Computer following the stock market crash in 1987), such manipulations are extremely rare in practice. Moreover, stock options are widely recognized in the empirical agency literature as an important source of contingent CEO compensation (e.g., Jensen and Murphy, 1990; Kerr and Kren, 1992). Nevertheless, since the potential for such abuse does exist for all firms in the sample, long-term incentives may be more precisely considered potentially contingent CEO compensation.

**Independent Variables**

**CEO and board influence.** The insider ratio was calculated as the number of employee directors divided by the total number of board members. CEO-board-chairman duality is a binary variable, coded as one if a CEO was also chairman of the board, and zero otherwise. Relative CEO-board tenure was calculated as the average board tenure of directors divided by the CEO’s tenure. Finally, directors’ stock ownership was measured as the percentage of total common equity owned by non-CEO directors. Because stock ownership can also be an important source of power for the CEO, we adjusted for CEO ownership in measuring this variable (Finkelstein, 1992).

**Demographic characteristics and similarity.** To test hypotheses relating similarity between the CEO and board to change in total compensation, four measures of change in
Table 1

Descriptive Statistics and Pearson Correlation Coefficients (N = 1652)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Relative CEO-board tenure</td>
<td>.41</td>
<td>.43</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. CEO-board chairman duality</td>
<td>.78</td>
<td>.41</td>
<td>.17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Directors’ stock ownership*</td>
<td>.01</td>
<td>.07</td>
<td>.45</td>
<td>.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Insider ratio</td>
<td>.28</td>
<td>.15</td>
<td>.11</td>
<td>.04</td>
<td>.16</td>
<td>.03</td>
</tr>
<tr>
<td>5. Return on assets</td>
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<td>5.56</td>
<td>-15</td>
<td>-05</td>
<td>-10</td>
<td>-3</td>
</tr>
<tr>
<td>6. Total returns</td>
<td>-4.55</td>
<td>15.29</td>
<td>-3</td>
<td>-07</td>
<td>-02</td>
<td>-13</td>
</tr>
<tr>
<td>7. Background similarity (CEO)</td>
<td>.62</td>
<td>.49</td>
<td>.18</td>
<td>.23</td>
<td>.11</td>
<td>.12</td>
</tr>
<tr>
<td>8. Age similarity (CEO)</td>
<td>.64</td>
<td>.48</td>
<td>.22</td>
<td>.18</td>
<td>.26</td>
<td>.13</td>
</tr>
<tr>
<td>9. Educational level similarity (CEO)</td>
<td>.68</td>
<td>.47</td>
<td>.06</td>
<td>.11</td>
<td>.18</td>
<td>.07</td>
</tr>
<tr>
<td>10. Insider status similarity (CEO)</td>
<td>.61</td>
<td>.49</td>
<td>.19</td>
<td>.24</td>
<td>.31</td>
<td>.17</td>
</tr>
<tr>
<td>11. Background similarity (board)</td>
<td>.10</td>
<td>.19</td>
<td>.16</td>
<td>.20</td>
<td>.11</td>
<td>.15</td>
</tr>
<tr>
<td>12. Age similarity (board)</td>
<td>19.38</td>
<td>3.35</td>
<td>-07</td>
<td>-17</td>
<td>-19</td>
<td>-07</td>
</tr>
<tr>
<td>13. Educational level similarity (board)</td>
<td>.20</td>
<td>.22</td>
<td>.04</td>
<td>.06</td>
<td>.17</td>
<td>.16</td>
</tr>
<tr>
<td>14. Insider status similarity (board)</td>
<td>.27</td>
<td>.21</td>
<td>.19</td>
<td>.20</td>
<td>.18</td>
<td>.20</td>
</tr>
<tr>
<td>15. Change in CEO-board similarity</td>
<td>.00</td>
<td>.26</td>
<td>.13</td>
<td>.24</td>
<td>.21</td>
<td>.14</td>
</tr>
<tr>
<td>16. Change in total compensation</td>
<td>.15</td>
<td>.85</td>
<td>.07</td>
<td>.23</td>
<td>.22</td>
<td>.05</td>
</tr>
<tr>
<td>17. Change in compensation contingency</td>
<td>.02</td>
<td>.26</td>
<td>.10</td>
<td>.09</td>
<td>.35</td>
<td>.17</td>
</tr>
<tr>
<td>18. Log of sales (in thous.)</td>
<td>6.73</td>
<td>1.21</td>
<td>-02</td>
<td>-01</td>
<td>-04</td>
<td>-17</td>
</tr>
</tbody>
</table>

* Mean and s.d. reflect actual values; correlations reflect inverse values.

CEO-board similarity were constructed for each year as similarity in the current year minus similarity in the prior year. The measures of (absolute) CEO-board similarity are analogous to the measures of CEO-new-director similarity discussed above. Since increases in the four measures of similarity were highly correlated (Pearson correlation coefficients > .6 in all cases), we created a single measure of increased similarity by summing the z-scores of all four change variables. We could also have limited this measure to include demographic information only on board members who serve on the compensation committee, but Lorsch and Maclver (1989: 65) suggested that the informal or formal evaluation of executives that informs compensation decisions is often accomplished in general board meetings. Moreover, other board members can clearly affect evaluations indirectly through informal conversations with committee members. An ideal approach might use data from all board members, with greater weight given to the characteristics of committee members, but the true influence weighting for committee membership would be difficult to determine and probably varies greatly across organizations.

Control Variables

Given that demographic similarity may play an especially large role in new director selection for the largest firms in the sample (Useem, 1984), log of sales was included as a control variable in analyses of CEO-new-director similarity and board-new-director similarity. Given possible relationships between various measures of firm performance and CEO compensation (e.g., Coughlan and Schmidt, 1985), we also controlled for performance in analyses of CEO compensation. Total returns was used as a market-based measure of firm performance, calculated as capital gains plus dividends accrued/paid during the year, divided by share price at the beginning of the year (Davis, 1991). Return on assets was also used as an operating measure of
performance. Both measures were adjusted for primary industry performance at the two-digit Standard Industry Classification (SIC) code level.

To control for potential relationships between firm size and the level or form of CEO compensation, log of sales was also included in analyses of CEO compensation. Given prior findings showing a relationship between the relative power of the CEO and the level or form of CEO compensation (e.g., Finkelstein and Hambrick, 1989; Westphal and Zajac, 1994), we also included our measures of board power (insider ratio, separate CEO-board chair, relative CEO-board tenure, and directors’ stock ownership) as control variables in the compensation equations. Finally, although the coefficients are not reported, we controlled for industry in all models by including dummy variables for each two-digit SIC code represented in the sample. Table 1 provides the means, standard deviations, and bivariate correlations for all data pooled.

**Analysis**

In testing hypotheses on the likelihood of CEO-new-director similarity, we used maximum-likelihood logit regression. Ordinary least squares (OLS) analysis is inappropriate when the dependent variable is categorical, because OLS assumes a linear additive model with normally distributed error terms, while the true probability model is nonlinear with binomially distributed errors (Aldrich and Nelson, 1984; Hosmer and Lemeshow, 1989). The logit function takes the following form:

\[ \log \left( \frac{P_i}{1 - P_i} \right) = b_k X_{ik} , \]

where \( P_i \) is the probability of CEO-new-director similarity on some attribute, \( X_{ik} \)s are independent variables, and \( b_k \)s are the estimated coefficients. Moreover, \( P_i \) is defined as:

\[ \exp \left( b_k X_{ik} \right) / \left[ 1 + \exp \left( b_k X_{ik} \right) \right] . \]
such that $P_i$ increases monotonically with $b_kX_{jk}$ and can assume any value between zero and one. OLS multiple regression analysis was used to analyze similarity between existing board members and new directors.

As discussed above, because the sample of new directors was not drawn randomly from the population of directors appointed from 1987 to 1990 and because data are not available on the representativeness of the sample, coefficient estimates could be biased. Although the sample of 413 firms appears to be representative of the population of Fortune/Forbes 500 firms, the sample of 1,113 new directors is not necessarily representative. To correct for any upward bias in parameter estimates resulting from nonrepresentative sampling and heteroskedasticity, we used Huber’s variance correction procedure (White, 1980). This formula produces robust standard errors when clusters of observations (i.e., companies) are representative of a population but individual observations (i.e., new directors) are not necessarily representative.

To assess change in total compensation, we applied pooled cross-sectional time series regression (Sayrs, 1989). This technique is appropriate for analyzing a dataset composed of multiple organizations observed at multiple time points. To correct for heteroskedasticity and autocorrelated error terms, we used the two-staged generalized least squares (GLS) procedure offered in the LI MDEP program (Greene, 1993). This procedure partitions error variance into three components—random error in time, random error in space (e.g., across organizations), and random error not unique to time or space—and uses this information to derive efficient and unbiased parameter estimates (Sayrs, 1989). The GLS estimator takes the following form:

$$B = (X'X)^{-1}X'Y,$$

given

$$Y = X_nB_k + u_{nt},$$

where $y_t$ are random over time, $u_n$ are random over cross sections, $e_{nt}$ are random over space and time, and $S$ is the sum of the variances of the three error components.

This model analyzes the effect of change in CEO-board similarity from year $t - 1$ to year $t$ on change in compensation level/contingency from year $t$ to year $t + 1$. All control variables were lagged by one year. Relationships are observed over a four-year time period, yielding 1,652 firm-years of data.

RESULTS

Hypotheses 1a through 4b predicted a positive association between CEO power and CEO-new-director similarity and, conversely, a positive association between board power and board-new-director similarity. In general, the results of logit and multiple regression analyses of demographic similarity provided in Table 2 provide strong support for these hypotheses. Higher insider-director ratios were significantly and positively related to CEO-new-director similarity for all demographic dimensions. Also, lower insider-director ratios
were significantly and positively related to board-new-director similarity for all demographic dimensions. Supporting H2a and H2b, CEO-board-chairman duality was significantly and positively related to CEO-new-director similarity for all demographic dimensions except educational level. Also as predicted, separation of the CEO and board chair positions was positively associated with similarity between existing directors and new directors across the same three dimensions.

Table 2

Logit and Multiple Regression Analyses of Demographic Similarity of New Director with CEO and Board ($N = 1113$)*

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Functional background</th>
<th>Age</th>
<th>Educational level</th>
<th>Insider/outside status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CEO</td>
<td>Board</td>
<td>CEO</td>
<td>Board</td>
</tr>
<tr>
<td>1. Relative CEO-board tenure</td>
<td>927***</td>
<td>-.045*</td>
<td>.967***</td>
<td>-.289</td>
</tr>
<tr>
<td>(265)</td>
<td>(.022)</td>
<td>(.263)</td>
<td>(.200)</td>
<td>(.267)</td>
</tr>
<tr>
<td>2. CEO-board chairman duality</td>
<td>799**</td>
<td>-.079**</td>
<td>.724**</td>
<td>-.607**</td>
</tr>
<tr>
<td>(275)</td>
<td>(.019)</td>
<td>(.274)</td>
<td>(.221)</td>
<td>(.280)</td>
</tr>
<tr>
<td>3. Directors’ stock ownership (inverse)</td>
<td>6980</td>
<td>-.323*</td>
<td>3.913***</td>
<td>-3.518*</td>
</tr>
<tr>
<td>(1533)</td>
<td>(.153)</td>
<td>(1.548)</td>
<td>(1.616)</td>
<td>(1.643)</td>
</tr>
<tr>
<td>4. Insider ratio</td>
<td>358</td>
<td>-.130*</td>
<td>.649**</td>
<td>1.164</td>
</tr>
<tr>
<td>(367)</td>
<td>(.069)</td>
<td>(.319)</td>
<td>(.840)</td>
<td>(.394)</td>
</tr>
<tr>
<td>5. Log of sales</td>
<td>.013</td>
<td>.004</td>
<td>.027</td>
<td>.046</td>
</tr>
<tr>
<td>(.022)</td>
<td>(.002)</td>
<td>(.018)</td>
<td>(.027)</td>
<td>(.027)</td>
</tr>
<tr>
<td>Constant</td>
<td>.400</td>
<td>.592***</td>
<td>1.363***</td>
<td>8.956***</td>
</tr>
<tr>
<td>(.386)</td>
<td>(.122)</td>
<td>(.352)</td>
<td>(.213)</td>
<td>(.467)</td>
</tr>
<tr>
<td>Chi-square$+$</td>
<td>36.18***</td>
<td>30.36***</td>
<td>25.48***</td>
<td>20.05***</td>
</tr>
<tr>
<td>Adjusted $R$-squared</td>
<td>–</td>
<td>.21</td>
<td>–</td>
<td>.16</td>
</tr>
</tbody>
</table>

*p ≤ .05; **p ≤ .01; ***p ≤ .001; $+$tests are one-tailed for hypothesized effects, two-tailed for control variables.

* Standard errors are in parentheses. Chi-square values are reported for analyses of CEO-new-director similarity; $F$-values are reported for analyses of board-new-director similarity.

+$+$ The variance-covariance matrix was computed using Huber’s correction procedure (White, 1980).

A very similar pattern of results emerged in support of H3a and H3b. Consistent with H3a, the longer the CEO’s tenure relative to the average tenure of board members, the greater the demographic similarity between CEOs and new directors across three of the four measures of similarity. H3b was also supported for two measures of similarity: Relative CEO-board tenure is significantly and negatively related to demographic similarity between existing board members and new directors with respect to functional background and insider/outside status. The results also support H4a: The lower the stock ownership among board members, the greater the demographic similarity between CEOs and new directors across all four dimensions of similarity. Moreover, consistent with H4b, directors’ stock ownership was consistently and positively related to similarity between the new director and the board.

Taken together, the results suggest that relatively powerful boards are more likely to appoint demographically similar new directors, while also frustrating the attempts of CEOs to do the same. Conversely, the greater the CEOs’ influence over the nominating process, the greater their ability to appoint demographically similar and therefore sympathetic
individuals to the board. One might argue that these findings apply primarily to the selection of new outside directors and less to the selection of new insiders. Accordingly, in separate models, we examined whether relationships between relative power and similarity were significant for the subsample of new outside directors, but not for the subsample of new inside directors. The pattern of results was quite consistent across these subsamples and generally matched the pattern of results for the larger sample, although models of insider/outside status similarity were necessarily excluded from these analyses.

With respect to the consequences of demographic similarity, Table 3 shows results of GLS regression analysis of change in CEO compensation. The first two columns provide results for compensation level; the last two columns provide results for compensation contingency. Models 1 and 3 include control variables only, while models 2 and 4 add the effect of change in CEO-board similarity.

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Total compensation</th>
<th>Compensation contingency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>1. Change in CEO-board similarity</td>
<td>.037***</td>
<td>(.009)</td>
</tr>
<tr>
<td>2. Insider ratio</td>
<td>.231</td>
<td>(.156)</td>
</tr>
<tr>
<td></td>
<td>(.226)</td>
<td>(.156)</td>
</tr>
<tr>
<td>3. CEO-board chairman duality</td>
<td>.107*</td>
<td>(.052)</td>
</tr>
<tr>
<td></td>
<td>(.064)</td>
<td>(.052)</td>
</tr>
<tr>
<td>4. Relative CEO-board tenure</td>
<td>.161**</td>
<td>(.058)</td>
</tr>
<tr>
<td></td>
<td>(.081)</td>
<td>(.058)</td>
</tr>
<tr>
<td>5. Directors' stock ownership (inverse)</td>
<td>.710</td>
<td>(.381)</td>
</tr>
<tr>
<td></td>
<td>(.713)</td>
<td>(.382)</td>
</tr>
<tr>
<td>6. Total stock returns</td>
<td>.001</td>
<td>(.001)</td>
</tr>
<tr>
<td></td>
<td>(.001)</td>
<td>(.001)</td>
</tr>
<tr>
<td>7. Return on assets</td>
<td>.196</td>
<td>(.388)</td>
</tr>
<tr>
<td></td>
<td>.199</td>
<td>(.385)</td>
</tr>
<tr>
<td>8. Log of sales</td>
<td>.023**</td>
<td>(.008)</td>
</tr>
<tr>
<td></td>
<td>.022**</td>
<td>(.008)</td>
</tr>
<tr>
<td>F-value</td>
<td>3.75**</td>
<td>6.01***</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>.18</td>
<td>.22</td>
</tr>
</tbody>
</table>

* p ≤ .05; ** p ≤ .01; *** p ≤ .001; r-tests are one-tailed for hypothesized effects, two-tailed for control variables. * Standard errors are in parentheses.

H5a predicted that increased demographic similarity between the CEO and other board members leads to greater subsequent increases in the CEO’s total compensation. Results strongly support this hypothesis (model 2). The results also support H5b, which posited a negative relationship between increased CEO-board similarity and subsequent change in compensation contingency (model 4). In general, then, the results show that greater similarity between the CEO and board is associated with more generous CEO compensation contracts, as indicated by subsequent increases in total CEO compensation and subsequent decreases in the portion of total CEO compensation that is contingent on firm performance.

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Models 1 and 3 in Table 3 also show that the indicators of board control were generally negatively related to change in total compensation and positively associated with change in compensation contingency. These results, while not central to the present study, provide additional evidence, consistent with prior research, that powerful boards limit the CEOs’ ability to dictate their own compensation arrangements (Finkelstein and Hambrick, 1988; Westphal and Zajac, 1994).

When change in CEO-board similarity is added to the equations (i.e., in models 2 and 4), however, coefficients for two of the three board-influence measures become statistically insignificant. In combination with the observed relationship between CEO influence and CEO-new-director similarity discussed above, these results provide suggestive evidence that change in CEO-board similarity may mediate the relationship between CEO influence over the board and subsequent changes in CEO compensation contracts. To ensure that results were not driven by scaling differences across the independent variables, we also estimated the effects of standardized influence and similarity measures on change in CEO compensation. The results were substantially unchanged.

DISCUSSION

This study provides strong and consistent evidence on the relationship between CEO and board power, demographic similarity and the selection of new directors. The study shows that social psychological and sociopolitical factors lead CEOs and existing board members to favor new directors who are demographically similar to them and that the relative influence of CEOs and boards predicts which party is more likely to realize his or her preferences in the new-director selection process. In addition, the study sheds light on the social psychological mechanism by which CEO influence can affect (intentionally or unintentionally) subsequent board decision making. Specifically, the findings indicate that (1) in firms in which CEOs are relatively powerful, new directors are likely to be demographically similar to the firm’s incumbent CEO; (2) when the boards of directors are more powerful than the CEOs, new directors resemble the existing board, rather than the CEO; and (3) increased demographic similarity between CEOs and the board is likely to result in more generous CEO compensation contracts.

The first set of results provides direct evidence for the effect of CEO power (measured in multiple ways) on the demographic similarity of CEOs and new directors. These findings are consistent with social psychological studies on the hiring process, which suggest that CEOs (and boards) should favor new director candidates who share common group memberships with them (Byrne, 1971; Baskett, 1973; Tajfel and Turner, 1986). The findings are also consistent with a relatively deliberate, political process whereby CEOs increase board support for their decisions and minimize the risk of dissension by favoring individuals with similar philosophies on strategy and administration, as indicated by demographic characteristics (Kanter, 1977; Pfeffer, 1981).
The results also suggest that the preferences of existing board members about new directors parallel the preferences of CEOs. It appears that relatively powerful boards not only constrain the ability of CEOs to recruit similar new directors, but such boards are also more likely to appoint new directors who reflect their own demographic profile. From a social psychological perspective, these findings are unsurprising, given that board members are obviously no less vulnerable to subconscious, in-group biases than CEOs are. From a political perspective, however, the results may seem more surprising, since most governance researchers impute political motives only to CEOs' behavior, and not to board members' behavior. In any case, the findings suggest that CEOs and existing board members effectively compete for the characteristics of new directors.

The present findings are also consistent with qualitative research on the politics of strategic decision making (e.g., Eisenhardt and Bourgeois, 1988), which shows that demographic similarity provides an important basis for coalition formation. In the context of new director selection, powerful corporate actors seek to enlarge their coalition of support by recruiting people with similar demographic group memberships. More generally, this interpretation suggests that "power begets power" (Pfeffer, 1981: 304), whereby a priori sources of power over the director selection process provide an opportunity for political behavior (i.e., the opportunity to appoint demographically similar and therefore sympathetic people to the board). As a result, demographic similarity both reflects and reinforces the existing power distribution.

Having established the role of the relative power of the CEO and board in new director selection, we conducted additional post hoc tests to assess the extent to which CEOs or boards generally dominated the new director selection process, thus dictating the characteristics of new directors. For this analysis, we sought to predict the specific demographic characteristics of new directors as a function of the CEO's characteristics and the existing board's characteristics. These results, shown in the Appendix, suggest that there is a strong general correspondence between the characteristics of incumbent CEOs and those of new directors. The magnitude of these effects is also considerable. For instance, the likelihood that new directors will have an advanced management degree increases by 34 percent if the CEO also has one. The results are consistent across all demographic characteristics. Thus the findings support the notion that CEOs generally are able to influence the appointment of demographically similar new directors. In contrast, associations between existing board-member characteristics and the attributes of new directors are weak and inconsistent. These results, when considered with the earlier findings, suggest that demographic similarity between the CEO and new director is the general rule, rather than the exception, and that only firms with a high degree of board power are likely to counter this tendency. Thus, to the extent that demographic similarity between the CEO and board biases boards' evaluations of the CEOs' performance, the appointment of new directors may typically promote

Consistent with these arguments, a third set of results indicated that increased demographic similarity between CEOs and board members was positively related to subsequent increases in CEO compensation and negatively related to increases in contingent compensation. Demographic similarity appears to enhance the boards’ perception of the value of the CEO’s leadership, while diminishing the perceived need for financial incentive alignment (Zajac and Westphal, 1995a). Moreover, there is suggestive evidence that changes in demographic similarity between the CEO and the board mediate the relationship between relative board influence (as indicated by our measures of board power) and subsequent change in CEO compensation contracts. Thus, while CEOs may still practice direct social influence or “internal entrenchment” practices (Wade, O’Reilly, and Chandratat, 1990; Walsh and Seward, 1990: 430), the appointment of demographically similar directors may represent another, relatively subtle and indirect mechanism by which CEOs influence board decision making. Accordingly, the findings suggest the need for corporate governance researchers to consider explicitly both the sociopolitical and social psychological dynamics in the relationship between the CEO and the board.

The strength of these results may be unexpected given how little demographic diversity typically exists among corporate elites. The standard deviation in age for directors in our sample is only six years, and nearly 60 percent hold an advanced degree, but as Wiersema and Bird (1993) noted, a high level of demographic homogeneity within a group may augment the salience of relatively slight demographic differences between people. Thus, for instance, given the constrained variation in age among directors in our sample, a new director candidate who is only ten years younger than the CEO and most directors on a board could nevertheless appear demographically distant, since, in relative terms, they are quite dissimilar. A high level of demographic homogeneity may actually promote out-group bias, confirming research on intergroup relations showing that out-group bias is more likely when the out-group status of others is relatively salient (Messick and Mackie, 1989).

This study has a number of implications for research on boards of directors. One implication is that the commonly made assumption that outside directors are more likely to exercise independent judgment in board decision making (Lorsch and Maclver, 1989) may be suspect, insofar as it ignores the possibility that—from a social psychological perspective—outside directors who are demographically similar to CEOs may be more akin to insiders. Thus normative debates on board composition should consider the more subtle role of demographic similarity in new director selection and subsequent board decision making.

The present study also suggests that a relational demography approach (Tsui and O’Reilly, 1989) could provide a useful complement to traditional theoretical perspectives on corporate board member selection. For example, the
likelihood that an individual will gain appointment to a particular corporate board may be contingent on his or her attitudinal and social compatibility with powerful actors in the organization (as indicated by demographic similarity), in addition to his or her social capital derived from other board appointments (Useem, 1984) or his or her organizational affiliation (Zajac, 1988). Similarly, this study also suggests alternative bases for compatibility. For instance, similar philosophies about strategy and administration, as indicated by shared functional background and other demographic characteristics assessed in this study, may largely compensate for membership in different socioeconomic classes. Future research could directly examine the relative importance of social and attitudinal similarity (e.g., socioeconomic status and functional background) as determinants of new director selection.

The theoretical mechanisms discussed in this study may also influence the selection of CEO successors. In more recent research, we found evidence that board power over departing CEOs decreased the likelihood of demographic similarity between new CEOs and their predecessors, while increasing similarity between new CEOs and the board (Zajac and Westphal, 1995b). Future research might investigate the circumstances in which this cycle of increased similarity between CEOs and boards is broken.

This study’s findings highlight the potential importance of considering demographic variables in the analysis of corporate governance issues. Governance research has tended to emphasize legal, economic, sociological, or political perspectives. While such perspectives are clearly relevant, this study suggests that greater attention to the interplay of social psychological and sociopolitical processes can advance our understanding of the control of modern corporations.

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Zajac, Edward J., and James D. Westphal

Zald, Mayer N.

Zenger, Todd R., and Barbara S. Lawrence

APPENDIX

Logit Regression Analyses of New Director Characteristics (N = 113)*

<table>
<thead>
<tr>
<th>New Director Characteristics</th>
<th>Independent variable</th>
<th>Operations background</th>
<th>Marketing/sales background</th>
<th>Age</th>
<th>Educational level</th>
<th>Insider/outside status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. CEO characteristic</td>
<td>.995***</td>
<td>1.493***</td>
<td>1.227***</td>
<td>1.981***</td>
<td>1.888***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.235)</td>
<td>(.263)</td>
<td>(.112)</td>
<td>(.139)</td>
<td>(.193)</td>
</tr>
<tr>
<td>2. Existing board member’s</td>
<td></td>
<td>.875</td>
<td>1.313</td>
<td>650*</td>
<td>.357</td>
<td>-.977</td>
</tr>
<tr>
<td>characteristic</td>
<td></td>
<td>(.361)</td>
<td>(.178)</td>
<td>(.270)</td>
<td>(.385)</td>
<td>(.666)</td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td>1.945***</td>
<td>5.431***</td>
<td>.487</td>
<td>2.916***</td>
<td>2.244***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.151)</td>
<td>(.688)</td>
<td>(.299)</td>
<td>(.389)</td>
<td>(.307)</td>
</tr>
<tr>
<td>Chi-square†</td>
<td></td>
<td>56.12***</td>
<td>56.12***</td>
<td>96.68***</td>
<td>84.41***</td>
<td>82.96***</td>
</tr>
</tbody>
</table>

* p .05; ** p .01; *** p .001.
* Standard errors are in parentheses.
† The variance-covariance matrix was computed using Huber’s correction procedure (White, 1980). Chi-square values for functional background measures stem from one multinomial logit analysis (see analysis section).