

**Language-Based Measures of CEOs' Agency and Communion  
Predict Company Stock Performance**

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### Abstract

The traditional view that effective leadership is defined primarily by agentic traits such as assertiveness and self-efficacy has shifted over recent decades, with research increasingly recognizing the practical benefits of communal leadership characterized by an emphasis on building and strengthening interpersonal relationships. To explore how behavioral indicators of agency and communion relate to objective measures of organizational success, we explored the relation between novel language-based measures of CEOs' agentic and communal traits and stock performance. Financial performance was measured using residualized month-to-month excess returns based on the Fama-French three-factor model, which provides an index of company stock performance over and above known financial indicators. Study 1 showed that higher levels of communion, but not agency, correlated with better firm financial performance. In Study 2 we illustrated how such linguistic measures might perform as investment guides by clustering firms into four stock portfolios covering all combinations of high and low agency and communion. The portfolio for firms with CEOs high in *both* agency and communion had the strongest positive trajectory of monthly excess returns, relative to CEOs with unbalanced levels of agency and communion or low scores on both traits. Results show that a simple dictionary-based measure of CEO communion provides incremental value as a predictor of firm financial success beyond known predictors of market performance. We discuss potential applications of the language-based leadership assessment approach and explore the methodological challenges of studying agentic traits in populations such as CEOs, where most individuals are near the ceiling on those traits.

*Keywords:* leadership, language, CEOs, agency, communion, stock performance

## **Language-Based Measures of CEOs' Agency and Communion**

### **Predict Company Stock Performance**

The financial fate of organizations often hinges on leaders' characteristic ways of perceiving and interacting with the world, including their personality traits and leadership styles. While organizational leaders are individual people working among a multitude of other executives and employees, they embody their organizations' ethos, outlook, strengths, and weaknesses both publicly and internally. Through everyday conversations, a CEO drives not only their company's structure and business strategies but also its internal culture as well as its reputation among stakeholders and competitors.

The trait theory of leadership suggests that an individual's stable and enduring patterns of thoughts, feelings, and behaviors can determine how effective they will be as a leader (Colbert et al., 2012). A leader's individual personality traits predict behaviors that can help or hurt an organization at the level of systemic concerns (such as strategic plans and financial performance) and individual and team-level impacts (such as work engagement and team coordination; Kaiser & Hogan, 2007). CEOs' reputations alone, based on publicly observable behavior such as language used in quarterly earnings calls or social media, can directly impact organizational success through indicators such as stock performance (see Harrison et al., 2019; McGregor, 2013). For example, investor confidence in CEOs with strong reputations can mitigate the negative impact of financial analysts' negative recommendation revisions on stock performance (Hussain & Su, 2024). In terms of personality perceptions, companies with CEOs who are viewed as more neurotic have been found to have more volatile stock performance (Harrison et al., 2020). Meta-analyses of psychological studies on leaders outside of executive contexts show that people scoring higher in extraversion, conscientiousness, agreeableness, openness to new

experiences, and emotional stability tend to be the most effective leaders (Judge et al., 2002), with personality effects typically being more predictive of effectiveness than individual differences in intelligence or cognitive ability (Judge et al., 2004).

Beyond the trait level, the facets that make up Big Five extraversion provide measures of both communal (gregarious, friendly) and agentic (assertive, active) sides of leaders' personalities. Extraversion is often found to be a strong positive correlate of leadership effectiveness across diverse samples (i.e., in business, government or military, and education). For example, extraverted CEOs were more likely to lead firms with increases in sales and stock returns after announcing a recent acquisition (Green et al., 2018). Some research has proposed that the predictive power of extraversion stems more from its communal than agentic components, with friendlier and more outgoing leaders facilitating greater cohesiveness in work teams (Zhang et al., 2022).

Though personality frameworks with five (Big Five, John, 2021) and six (HEXACO, Ashton & Lee, 2020) traits dominate personality research today, broader approaches organizing all traits under the umbrellas of two traits, agency and communion (Abele & Wojciszke, 2007; Bakan, 1966) have equal or greater explanatory value in some contexts—particularly when the psychological processes of interest have to do with social perception, or how a person is viewed by others. The main routes through which leader personality affects organizational success involve social perception: leaders influence employees' behavior by modeling and rewarding certain approaches to social behavior (e.g., agentic, communal, neither, or a balance of both), and leaders also shape external stakeholders' view of the company's ethos and goals through their behavior in public forums such as earnings calls. The stereotype content model proposes that the fundamental elements of social perception are competence and warmth (Fiske, 2018), which map

onto agency and communion, respectively. Although the various proposed agentic-communal frameworks differ with respect to underlying facet structure (Uchronski, 2008) and the degree to which the traits are operationalized as fundamentally interpersonal or individual (Abele & Wojciszke, 2014; Abele et al., 2008), they are all based on the foundational assumptions that that communal traits facilitate relationships and social skills (such as empathy or compassion), whereas agentic traits facilitate self-sufficiency and individual goal pursuit (especially related to dominance and competition; Abele & Bruckmüller, 2013; Wojciszke et al., 2009).

Outside of research on leadership, agency and communion serve as powerful and parsimonious predictors of behavior and health. People with a balance of both agentic and communal traits tend to fare best in life in terms of relationship quality, mental health, and well-being (Helgeson, 1994; Helms et al., 2006). The socially riskiest combination seems to be high agency without the counterbalancing influence of communality (referred to as unmitigated agency), which is associated with higher rates of personality disorders and antisocial traits such as sadism, Machiavellianism, and psychopathy (Helgeson & Fritz, 1999; Paulhus, 2014). High communality with low or absent agency (referred to as unmitigated communion) has fewer negative interpersonal consequences but is associated with personal vulnerabilities such as dysphoria and depression (Hirokawa & Dohi, 2007).

In the context of leadership, much of the research on agency and communion focuses on perceptions of and attitudes towards leaders rather than survey data from leaders themselves. When presented with descriptions of candidates for top managerial positions, people typically prefer agentic over communal applicants (Agut et al., 2022; Nichols, 2016), and entrepreneurs are viewed as agentic rather than communal (Jakob et al., 2019). However, when asked to imagine working with a manager who is relationship-oriented, task-oriented, or charismatic,

people preferred relationship-oriented managers over the alternatives (Breevaart & de Vries, 2019). Thus, though people stereotype leaders as agentic and see agency as necessary for effective leadership, they would rather be led by someone who who prioritizes relationships.

Cultural shifts over time have affected both perceived and real associations between agency, communion, and leadership ability. Perceptions of leadership increasingly encompass both agentic and communal traits (Koenig et al., 2011; Schock et al., 2019). For example, people consider agency to be necessary in an ideal leader but see communion as a valuable add-on once agency is taken for granted (Vial & Napier, 2018); that scenario is especially likely among CEOs of publicly-traded companies, where agentic traits (such as assertiveness, competence, and competitiveness) may be taken as a given more so than communal characteristics (such as caring about people and relationships). Communal traits were also recognized as particularly critical to leadership during the COVID era, where establishing trust and strengthening relationships between management and employees seemed to be vital for successful transitions to remote or hybrid work (Chen & Sriphon, 2021). Similarly, for supervisors managing the work-from-home mandate during the COVID-19 pandemic, predominantly agentic and predominantly communal leaders were perceived as equally competent (Eichenauer et al., 2022). Qualitative interviews in earlier work additionally showed that employees identified agentic behaviors (e.g., the ability to make rapid-fire decisions) and communal behaviors (e.g., remaining in communication with employees) as similarly critical during crises (Haddon et al., 2015).

Beyond perceptions of leadership, research on objective measures of leaders' performance has found that needs for power, achievement, and affiliation all similarly predict leadership effectiveness, though they tend to impact distinct outcomes. Achievement and power are agentic implicit motivations related to aspirations of self-improvement and social influence,

respectively, whereas affiliation is an implicit communal motive that focuses on fostering close relationships (Brueckner et al., 2021; McClelland et al., 1989; Schüler et al., 2019). Firms with highly achievement-motivated leaders have been found to have better performance at both the employee and organizational-levels, including more successful completion of projects and greater firm growth rates (Winter, 2010). In politics, power motivation has historically been associated with better economic and social performance among presidents of the United States (House, 1996; House et al., 1991; Spangler & House, 1991). On the other hand, affiliation motivation in vision statements has been found to predict better team performance in engineering and architectural agencies (Kirkpatrick et al., 2002).

Though most of the research on agency and communion has focused on self-reports, attitudes, and social perceptions, a few studies have used language to assess links between CEOs' agentic and communal traits and firm financial performance. For example, collective language such as first-person plural "we" pronouns reflects a communal perspective (Brewer & Gardener, 1996), which can correspond to communal coping with community trauma (Ashokkumar & Pennebaker, 2021; Cohn et al., 2004; Dworakowski et al. 2023) or partners' health crises (Rohrbaugh et al., 2012). In an organizational context, firms led by CEOs who used more "we" pronouns in their letters to shareholders as part of annual reports had greater asset returns and employee sales (Fladerer et al., 2021). Additionally, higher status individuals like CEOs tend to use more "we"-talk in general (Kacwicz, 2013; Kacwicz et al., 2014), theoretically reflecting that people with more influence over others' behavior are more prone to think of their groups as a collective whole and speak on behalf of the group.

### **The Current Research**

Although past research demonstrates a bias toward agency over communion regarding perceptions of ideal leadership (Agut et al., 2022; Nichols, 2016), depending on the context (e.g., leadership during a crisis; Eichenauer et al., 2022), both agency and communion have been increasingly perceived as important for becoming a leader (Schock et al., 2015) and excelling in leadership positions (Haddon et al., 2015; Zheng et al., 2018). However, most previous research on agency and communion has focused on subjective ratings of communal and agentic leader qualities rather than using more objective behavioral measures of the traits.

Parallel to well-being research showing the best life outcomes for people high in *both* communal and agentic (Helgeson, 1994; Helms et al., 2006), we hypothesize that organizations led by people high in both communal and agentic traits, as measured by language use in quarterly earnings calls, will have the best financial outcomes. Specifically, in the following analyses, we predicted that highly agentic and communal CEOs would financially outperform CEOs with unbalanced traits or low scores in both agentic and communal measures. We measured agency and communion in language from the question-and-answer portion of quarterly earnings call transcripts. Language-based measures of agency and communion have the benefits of being unobtrusive and based on publicly observable behavior, thus obviating the need for survey results from the CEOs themselves (which would be difficult or impossible to obtain for many). Behavioral assessments such as language-based measures also avoid response biases that are difficult to identify and statistically mitigate in self-report data, including reference group effects (Youyou et al., 2017) and social desirability biases (Bernardi & Nash, 2023).

Language reliably reflects individual traits and facets (Boyd & Pennebaker, 2017). Individuals exhibit similar linguistic patterns longitudinally and throughout different contexts (Ireland & Mehl, 2014), supporting the use of verbal behavior as an unobtrusive indicator of

individual differences such as personality, gender, and age. Relevant to the present research, agentic and communal language use correlates with subjective ratings of agency and communion within organizational contexts (Pietraszkiewicz et al., 2019). Specifically, analyses of words surrounding references to occupations in Reuters news reports showed that language theoretically consistent with agency (e.g., *skill, attain, do*) and communion (e.g., *we, together, solidarity*) significantly predicted subjective ratings of each job's agency and communion.

In examining the association between CEO's agentic and communal personality traits and companies' stock market performance, the current research is at the intersection of finance and psychology. As such, we conducted two sets of analyses on the same dataset: (1) taking the common psychological approach of regressing an objective performance outcome (stock performance above and beyond standard market forces) onto continuous linear measures of communion, agency, and their interaction; and (2) illustrating potential applications of our approach using financial portfolio analyses similar to those used to make stock market investment decisions.

## **Method**

### **Language Sample**

Language was taken from quarterly earnings call transcripts for a large sample of CEOs ( $N = 5,003$ ). Earning calls provide a rich source of data for studying leader personality, as they typically involve discussions among executive leaders (e.g., CEOs, CFOs) and sell-side analysts that focus on the financial performance of the firm during the previous quarter (Zhao, 2018). All earnings calls begin with a scripted speech prepared by the CEO, followed by an unscripted question-and-answer (Q&A) session among executives and analysts. We analyzed CEOs' unscripted (rather than scripted) language on the basis that unscripted language is unregulated

and, therefore, a stronger reflection of CEO personality (Matsumoto et al., 2011; see Wang et al., 2020). CEOs were excluded from analyses if their firm was not listed on a US stock exchange such as NASDAQ or NYSE and thus did not have publicly available financial performance data.

On average, the CEOs in our sample used 1,850 words ( $SD = 1,195$ ) during the unscripted Q&A sessions of earnings calls. Only earnings call transcripts that consisted of more than 100 words were included within the sample, resulting in a sample of 207,896 quarterly earnings call transcripts for 3,567 CEOs.

## **Measures**

### ***Language***

To assess leader personality, we analyzed CEO quarterly earnings call transcripts using Receptiviti's (2025a) Human-Insights API measures of agentic and communal language. Receptiviti serves as the commercial branch of LIWC (Linguistic Inquiry and Word Count; Boyd et al., 2022), a dictionary-based computerized text analysis software that quantifies a diverse range of psychological processes, including cognition, emotion, motivation, and social dynamics. Dictionary approaches, in contrast with more data-driven methods like topic models, output the percentage of words in a text that match a series of internal dictionaries and dictionary-based composite language measures (Tausczik & Pennebaker, 2010; see also Eichstaedt et al., 2021). Receptiviti's measures incorporate LIWC dictionaries and other proprietary algorithmic measures based on internal validation research.

Although LIWC is used in academic contexts and Receptiviti in business contexts, a growing body of research incorporating Receptiviti dictionaries and taxonomies validates its utility. For example, recent research using the Receptiviti API has shown language-based personality differences among various types of leaders (Obschonka et al., 2017; Obschonka &

Fisch, 2017) and predicted organizational outcomes such as corporate social responsibility performance (Clarkson et al., 2020) and corporate sustainability performance (Venugopal et al., 2023).

To assess agency and communion in CEOs, we used the agentic and communal language measures within Receptiviti's (2025b) Interpersonal Circumplex Framework. These language measures were initially based on research conducted by Pietraszkiewicz and colleagues (2019) who created and validated agentic and communal dictionaries. The agentic measure identifies language relating to self-focused goals and motivations (e.g., *acquire, choose, goal, need*), while the communal measure identifies language relating to prosocial interactions and relationships as well as collective-focused goals (e.g., *we, family, share, help*). These proprietary measures are based on formulas that include both expanded versions of the Pietraszkiewicz et al. (2019) dictionaries as well as theoretically and statistically linked dictionary measures (such as LIWC achievement and affiliation); each measure was validated internally based on self-reports and expert observations (Receptiviti, 2025b).

Once agency and communion scores were calculated, we normalized and ranked all scores in descending order. Receptiviti's agentic and communal language scores are normed percentile scores ranging from 0 to 1 that represent the rank of a given language sample in comparison with scores of Receptiviti's baseline language corpus. We multiplied all scores by 100 to facilitate the interpretation of results. After norming, CEO means were at the 49<sup>th</sup> percentile for both communal ( $M = 49.08, SD = 20.31$ ) and agentic ( $M = 49.42, SD = 19.07$ ) language use. Both agentic and communal language measures were normally distributed and did not contain any univariate outliers.

### **Financial Performance**

Because CEOs both directly and indirectly influence the state of their firm (Hambrick & Quigley, 2014), we operationally defined leadership effectiveness at the organizational level as firm financial performance over time (i.e., excess returns, accumulated over each month, from the start to end of their tenure or the measurement period) based on Fama-French three-factor residuals. The Fama-French three-factor model (1993) considers three market factors: firm size, book-to-market ratio, and general market risk. To partly control for firm size (or the tendency of small firms outperforming large firms), we subtracted the average returns of large firm portfolios from the average returns of small firm portfolios (i.e., Small Minus Big; SMB; Allen & McAleer, 2023). In terms of book-to-market ratio, we subtracted the average returns of value (high book-to-market) portfolios from the average returns of growth (low book-to-market) portfolios (i.e., High Minus Low; HML). Market risk (or the excess return of the overall market) was assessed, factoring in data for all firms listed on a US stock exchange. Thus, our use of the Fama-French three-factor model estimated how much stock firms earned in excess of the market each month after accounting for known market risk factors. The average rate of residualized monthly excess returns for firms of CEOs in our sample was 0.002 ( $SD = 0.13$ ), with scores ranging from -1.42 to 14.95.

The residuals had a heavy-tailed, symmetrical distribution and a substantial number of univariate outliers ( $n = 1,715$  earnings calls). Because many of the outliers were from larger, top-performing firms, rather than undertaking listwise deletion, we subset the data by firm size (small versus large companies) and conducted all statistical analyses for each subset of the data. Firm size was operationalized as share price (accumulated over a CEO's tenure) for each company in our sample (Washburn & Bromiley, 2014). Share price values greater than \$15 reflected larger companies ( $n = 151,736$  earnings calls) and share price values less than or equal

to \$15 reflected smaller companies ( $n = 56,160$  earnings calls). After dividing the samples and recalculating outliers, both groups of firms had similar rates of outliers (larger firms  $n = 1,148$  calls; smaller firms  $n = 425$  calls).

## **Analytic Strategies**

### ***Continuous Approach***

For small and large firms, we regressed stock performance (residualized month-to-month excess returns) on continuous language-based measures of agency and communion as well as their interaction term, including time (date of firms' monthly excess returns) as a covariate in all models. All variables were  $z$ -scored to facilitate interpretability.

Regression models were conducted for both subsets of the sample (firms with a share price  $> \$15$  versus a share price  $\leq \$15$ ) both including and excluding outliers. Analyses were run in R (R Core Team, 2025), and linear mixed-effects models used the *nlme* R package (Pinheiro et al., 2023).

### ***Categorical Stock Portfolio Approach***

To determine the degree to which CEOs' differential use of agentic and communal language predicted firm financial performance, we compared monthly excess returns associated with each of the four groups of CEOs akin to distinct stock portfolios: high agency-high communion, high agency-low communion, low agency-high communion, low agency-low communion. Linear regression models comparing all possible combinations of CEO groups tested which leadership style demonstrated the fastest growth rate of month-to-month returns. For each regression model, we reported statistics associated with the intercept, which represents the average monthly returns for the reference group in the respective model. Descriptive statistics by CEO group are reported in Table 1.

**Table 1***Descriptive Statistics for All Model Variables by CEO Group*

CEO group	Returns <i>M (SD)</i>	Agency <i>M (SD)</i>	Communion <i>M (SD)</i>	Earnings call <i>n</i>
High Agency High Communion	0.003 (0.15)	68.09 (12.46)	69.08 (12.47)	65,412
High Agency Low Communion	0.001 (0.12)	61.50 (9.24)	36.40 (10.00)	34,952
Low Agency High Communion	0.002 (0.14)	37.67 (9.54)	61.87 (8.94)	36,567
Low Agency Low Communion	0.002 (0.12)	33.46 (10.67)	31.55 (11.57)	75,989

*Note.* The table above lists the means, standard deviations, and sample sizes for all model variables for each CEO group. Returns = Average monthly firm excess returns. Agency = CEOs' average rates of agentic language used during earnings calls. Communion = CEOs' average rates of communal language used during earnings calls. Earnings call *n* = sample size of CEO earnings calls that were analyzed for each CEO group.

## Results

### Continuous Approach

For all main models, we excluded companies with financial outcome outliers from the respective samples and controlled for the date of residualized monthly excess returns. However, in each subsection below, we also note whether there were any deviations in our findings based

on the inclusion or exclusion of outliers in the samples and time as a covariate in the statistical models.

***Firms with Share Price ≤ \$15***

For the main effects, CEO communion but not agency was significantly positively correlated with company stock performance. Linear mixed-effects models demonstrated that the interaction between CEO communion and agency did not significantly predict financial performance for smaller-sized companies (Table 2).

In auxiliary analyses that included outliers, the effect of communion was weaker ( $p = .059$ ), though those results should be interpreted with caution given the inclusion of extreme values. Effects in models that did *not* include time as a covariate were nonsignificant (all  $ps > .1$ ).

**Table 2**

*Linear Mixed-Effects Model Predicting the Financial Performance of Smaller Firms as a Function of CEO Communal and Agentic Language*

Variables	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI
Communal	0.01	0.005	2.30	.022	[.002, .02]
Agentic	-0.01	0.005	-1.16	.244	[-.01, .004]
Date	-0.03	0.004	-7.86	<.001	[-.04, -.03]
Interaction	-0.004	0.004	-0.99	.321	[-.01, .004]

*Note.* Communal = Main effect of CEOs' communal language. Agentic = Main effect of CEOs' agentic language. Date = Date of firms' monthly excess returns; modeled as a covariate.

Interaction = Interaction between CEOs' communal language and CEOs' agentic language.  $df = 53,923$ .

### *Firms with Share Price > \$15*

As in the smaller firm analyses, larger firms showed a significant positive association between CEO communion (but not agency) and firm financial performance. As before, the agency-by-communion interaction did not significantly predict monthly excess returns (financial performance) for larger-sized companies (Table 3).

The effect of communion remained significant regardless of whether outliers were excluded from the sample and statistical models controlled for time, showing that the effect of communion was more robust for larger firms. As context, larger firms were also slightly lower in communion than smaller firms' CEOs,  $d = .13$ , suggesting that communion may be more impactful in cases where it is less common (larger firms).

**Table 3**

*Linear Mixed-Effects Model Predicting the Financial Performance of Larger Firms as a Function of CEO Communal and Agentic Language*

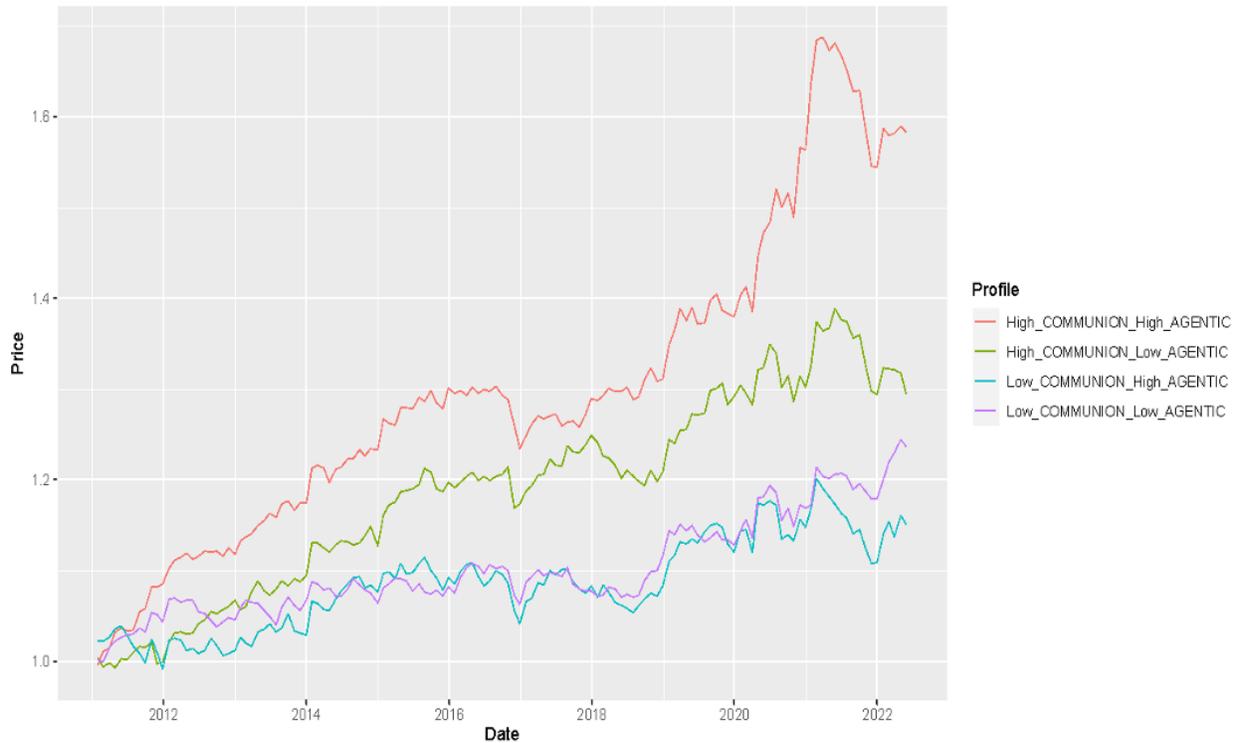
Variables	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI
Communal	0.01	0.003	2.73	.006	[.002, .02]
Agentic	-0.002	0.003	-0.51	.610	[-.01, .005]
Date	-0.01	0.003	-4.11	<.001	[-.02, -.01]
Interaction	0.003	0.003	1.25	.213	[-.002, .01]

*Note.* Date refers to the date of firms' monthly excess returns, modeled as a covariate. Interaction refers to the interaction between CEOs' communal language and CEOs' agentic language.  $df = 147,574$ .

### **Categorical Stock Portfolio Approach**

Consistent with our predictions, linear regression models revealed that firms led by CEOs high in both communion and agency yielded a significantly stronger positive trajectory of month-to-month excess returns than all other CEO groups (Figure 1): high communion-low agency ( $b = 0.002$ ,  $SE = 0.001$ ,  $t = 2.54$ ,  $p = .012$ , 95% CI [0.0005, 0.004]), low communion-high agency ( $b = 0.003$ ,  $SE = 0.001$ ,  $t = 3.63$ ,  $p < .001$ , 95% CI [0.001, 0.004]), and low agency-low communion ( $b = 0.002$ ,  $SE = 0.001$ ,  $t = 2.63$ ,  $p = .010$ , 95% CI [0.001, 0.004]).

Unmitigated agency (high agency with low communion) was the least effective group of stocks, though it was statistically indistinguishable from the low agency-low communion group. These findings complement and extend research suggesting that leaders with both agentic and communal traits are more positively perceived (e.g., Schlock et al., 2019).



*Figure 1.* Stock portfolio performance as a function of high and low agentic and communal language.

### Discussion

In both sets of analyses, communal language reliably predicted better firm financial performance—on its own modeled as a continuous variable and in conjunction with agency in the categorical stock portfolio analysis. The predictive utility of communal over agentic language may be related to the nature of the sample. CEOs of publicly traded companies as uniformly high in agency, whereas CEO communality is more varied and thus provides a greater chance for gaining ground over competitors.

As in any correlational study, we can only speculate about the causal relationships among the observed variables. The broadest and most justifiable interpretation of our results is that CEO language likely both influences and reflects their organizations' cultures. CEOs who reliably

speak with high communion are likely focused on facilitating a culture and environment in which employees can thrive over the long-term to generate sustained results. That is, communal leaders may engender a more collaborative, caring work culture that fosters effective teamwork and communication, leading to greater creativity and productivity (ultimately reflected in better financial performance) than would be typical at companies focusing primarily on dominance and ruthless competition (see Gorton et al., 2022).

Communal language may also affect companies' stock prices via their reputations. Having a CEO who prioritizes relationship-building may help companies stand out to investors and analysts in a world where ruthlessness is assumed to trump relationship-building and collective cultural values. Our results dovetail with other findings indicating a global cultural shift in what effective leadership looks like, perhaps related to recent technology-driven changes in how publicly traded companies operate and interact with the public (Bozkus, 2023; Chen & Sriphon, 2021).

The results complement similar research that highlights the benefits of communal leadership and cautions against unmitigatedly agentic leaders. For example, individuals scoring high on agency and low on communion (i.e., unmitigated agency) tend to score higher on dark personality traits (e.g., Machiavellianism, psychopathy, narcissism; Trapnell & Paulhus, 2012) that may negatively affect organizations both internally and reputationally. Another study found that activist shareholders were more likely to intervene in companies to the degree that their CEOs were high in agency, presumably motivated by concerns that highly agentic CEOs would pursue personal agendas without consideration to shareholders' interests (DesJardine & Shi, 2022). Being more wary of agency without communion than communion without agency is consistent with personality research showing that unmitigated agency but not unmitigated

communion is associated with psychologically risky traits including neuroticism and hostile dominance (Ghaed & Gallo, 2006).

### **Limitations**

There are limitations in both sets of analyses. From a psychological lens, the stock portfolio approach loses valuable variance in the continuous agentic and communal measures by grouping CEOs as combinations of high and low communion and agency. From a commonsense perspective as well, any dichotomized variable becomes less accurate near the midpoints—for example, CEOs who scored in the 49th percentile of communal language were categorized as low communion despite likely not being meaningfully less communal than those at the 50th percentile. Thus, the initial regression analyses, which preserved the continuous nature of each language measure, may be the more trustworthy approach.

Yet the stock portfolio analyses were useful insofar as they showed that disparate approaches yielded partly convergent findings. The portfolio approach was intended not as a conclusive psychological test but as an example of how such linguistic measures might be applied in finance, where model performance is of greater importance than psychometric considerations. To better understand the cause and effect of leader personality in workplace contexts, future research might run a series of lab experiments and naturalistic quasi-experiments focusing on discovering whether (and which) communal traits in leaders causally influence objective measures of group performance over and above agentic traits. Such research would also be valuable in testing how linguistic measures of agency and communion respond to experimental manipulation of those traits.

For both sets of analyses, there are possible underlying variables not accounted for in the models that may be driving the results. The degree to which CEO agency and communion

correlates with the overall performance of a company—including not only financial returns but also other relevant performance metrics like employee engagement and productivity—may depend on unmeasured moderators such as the fit between CEOs and their employees or organization (Giberson et al., 2009). Akin to research on attraction showing that people like individuals who match their values, background, and personality in most characteristics (Bahns et al., 2017; Montoya & Horton, 2013), people tend to prefer leaders that match or fit with their own personality. For example, highly conscientious (i.e., dutiful, detail-oriented) workers prefer working under task-oriented managers (Breevaart & de Vries, 2019). That is, as with other leadership-relevant traits, the optimal levels of leaders' agency and communion likely depend in part on preexisting workplace culture, the degree of fit between companies' needs and leaders' strengths, and the degree to which each adapts to the other.

Though we did not explore gender in the above results, gender stereotypes are relevant to both leadership perceptions and stereotypes as well as agentic and communal traits. People tend to perceive agentic traits as masculine and communal traits as feminine (Bem, 1974; Spence & Helmreich, 1980). Similarly, female CEOs express significantly greater communal-related affiliation language than male CEOs, while male CEOs express significantly greater agentic-related power (but not achievement) language than female CEOs (Brueckner et al., 2021); however, meta-analyses suggest that such gender differences have decreased over time (Hsu et al., 2021). There is some evidence that communal traits are especially effective in engendering communal outcomes such as cooperation in masculine contexts (for male leaders or in male-dominated industries; Gartzia & van Knippenberg, 2016), consistent with the idea that communal leadership will be more impactful in cases where it is less common or cannot be taken as a given.

## **Conclusion**

Historically, people adhered to occupational and leadership stereotypes that emphasize agentic leadership traits over communal leadership traits (Jakob et al., 2019). However, perceptions of effective leadership seem to be shifting to encompass a range of both agentic and communal traits and behaviors, particularly during crises such as pandemics (Eichenauer et al., 2022) or economic collapses (Haddon et al., 2015). Furthermore, organizational researchers increasingly agree that the most effective leaders employ a blended leadership style that integrates both agency and communion (Burke, 2018). Both sets of results indicate that CEO communality, and not only agency, is vital for effective leadership. Though our results are from a sample of elite leaders (CEOs of publicly traded companies), they dovetail with the growing consensus in social psychology and management research, suggesting that our conclusions will be broadly applicable to leadership in smaller organizations and as well as lower-level managers and team leaders. Findings regarding the primacy of communion in leadership have clear and immediate applications in both leadership selection and coaching, with the potential to guide both personnel decisions as well as leader development.

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