

Perceived Managerial Extraversion, Manager-Strategy Fit, and Investor Decisions: Evidence from an Online Experiment

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Abstract: We provide experimental evidence on how firm outsiders' perception of managerial extraversion affects their perception of manager-strategy fit and subsequent investment decisions. While recent literature shows the importance of outsiders' perception of CEO characteristics, the manager-strategy literature suggests that CEO characteristics affect firm success jointly with firm strategy. Consequently, investors' assessment of the firm may be driven by their perception of manager-strategy fit rather than their perception of CEO characteristics alone. We focus on investors' perception of extraversion as literature suggests that CEO extraversion is positively related to performance in innovative and expanding firms. In our experiment, we manipulate perceived extraversion by varying speech rate in an audio treatment and manipulate firm type through differing firm descriptions. We find that when a manager who is perceived as extroverted manages a Prospector (Defender) firm, subjects view manager-strategy fit as higher (lower) and the firm as more (less) likely to succeed in the future. Furthermore, investors regard such firms as less risky and more attractive investments. Our results contribute to the growing literature that analyzes how outside stakeholders' perception of managerial traits influences their assessment of the firm and investment decisions.

Keywords: management characteristics; investor perception; investor judgement.

JEL classification: M12; G41; C91.

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Experimental materials: <https://github.com/alex-paulus/ExpMaterialExtraversion>

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1. Introduction

Recent management literature has emphasized that the personal characteristics of a firm's CEO¹ strongly influences firm outcomes (e.g. Colbert et al. 2014, Harrison et al. 2019, Hermann and Nadkarni 2014). More generally, literature finds that firm success is dependent not just on CEO characteristics, but on the *fit* between those characteristics and firm strategy (Thomas et al. 1991; Thomas and Ramaswamy 1996). This idea is based the person-environment fit theory, which argues that personal performance is related to the congruence between personal characteristics and the characteristics of the work environment (Edwards et al. 1998, Kristow-Brown and Guay 2011). More specifically, the theory of person-organization fit suggests that managerial performance may benefit from a fit of CEO abilities and organizational demands (Kristof 1996, Morley 2007).

However, there is little research on how firm outsiders such as retail investors perceive manager-strategy fit. This is a relevant topic as outsiders' perception of the firm may have real consequences for the firm (Harrison et al. 2020, Boivie et al. 2016). For example, Harrison et al. (2020) find that investors' perception of manager characteristics influences their assessment of firm value and investment risk. Consequently, this outside perception may influence the firm's stock price and its ability to raise funds. However, as the effect of CEO characteristics on firm success is dependent on the firm's strategy (e.g., Thomas et al. 1991), the external perception of manager-strategy fit, rather than the perception of managerial characteristics alone, is an important topic of study. If firm outsiders view manager-strategy fit as relevant, their assessment of firm value and subsequent investment decisions may be driven by their perception of this fit rather than just by their perception of CEO characteristics. In particular, we analyze whether firm outsiders infer

¹ We use the terms "manager" and "CEO" interchangeably.

manager-strategy fit from their perception of managerial extraversion, and how their perception of manager-strategy fit shapes their investment decisions.

We focus on the role of managerial extraversion for several reasons. In general, managerial extraversion helps explain a variety of managerial decisions and firm outcomes such as sales growth (Green et al. 2019), the level of financial leverage (Lartey et al. 2020), and CSR performance (Hrazdil et al. 2021). More specifically, managerial extraversion is an important determinant of manager-strategy fit. Extroverted managers increase the effectiveness of firms undergoing rapid expansion (Wissema et al. 1980), are more likely to succeed in M&A transactions (Malhotra et al. 2018), and consequently improve market reactions to M&A announcements (Green et al. 2019). However, managerial extraversion is also linked to higher cost of capital due to increased risk-taking (Adebambo et al. 2021). In line with this, firms that implement cost leadership strategies in stable environments are more effective with managers that are conscientious rather than extroverted (Ramdani et al. 2015). This suggests that managerial extraversion increases manager-strategy fit for some firms, but decreases it for others. In conclusion, prior literature suggests that extraversion is a highly relevant CEO characteristic and driver of manager-strategy fit.

In this paper, we provide experimental evidence regarding investors' perception of manager-strategy fit and their subsequent decision-making. In line with prior literature which links extraversion to high speech rate (e.g., Koomen and Dijkstra 1975), we manipulate subjects' perception of managerial extraversion through audio treatments which differ in speech rate. Based on the literature above, we then model manager-strategy fit as the combination of an extroverted manager and a Prospector firm in the Miles-Snow framework (Miles et al. 1978), i.e., a firm that engages in expansion and innovation. We then analyze whether subjects' perception of managerial

extraversion influences their perception of manager-strategy fit, their subsequent assessment of the firm, and investment decisions.

Our results indicate that firm outsiders' perception of manager-strategy fit is influenced by their perception of managerial extraversion, and that their investment behavior is partially affected. In particular, subjects view manager-strategy fit as higher when they perceive the manager to be more (less) extroverted and the firm acts as a Prospector (Defender) within the Miles-Snow framework. Consistent with this, they view investments in such firms as more attractive and less risky than investments in firms with low manager-strategy fit. However, surprisingly, subjects do not indicate that they are more likely to invest in the stock of such firms, or that they would invest higher amounts. Collectively, our results suggest that investors' perception of managerial extraversion may influence investor perception of manager-strategy fit, but only partially influence investment decisions.

We contribute to the growing stream of research on outsiders' perception of CEO characteristics and the behavioral effects of this perception (Harrison et al. 2020, Boivie et al. 2016, Vergne et al. 2018). Prior research suggests that perception of CEO characteristics may drive investment behavior and have real consequences for the firm. We add to this literature by showing that firm outsiders perceive manager-strategy fit based on the combination of CEO characteristics and firm type, and that this perception drives evaluation and assessment of the firm. Taken together, our results also suggest that investor perception of managerial extraversion may have an influence on the firm's share price.

The remainder of the paper is structured as follows. Section 2 reviews the relevant literature and builds our hypotheses. Section 3 describes the experimental design. Section 4 reports the results of our analyses. Section 5 concludes.

2. Literature Review and Hypothesis Development

2.1 Extraversion and Manager-Strategy Fit

Since CEOs decide on key strategic matters such as mergers and R&D investments, the CEO of a firm has a strong influence on the firm's organizational outcomes (e.g., Hambrick and Mason 1984). Upper echelons theory suggests that the CEO's personal style significantly shapes corporate behavior. CEO characteristics consequently become reflected throughout the organization (Gupta et al. 2017, Hambrick 2007). In line with this idea, literature has found that managerial characteristics explain a large amount of variation in financial and organizational decisions such as aggressiveness (Bertrand and Schoar 2003), investments (Hirshleifer et al. 2012), and capital allocation (Chatterjee and Hambrick 2011). Taken together, research has produced convincing evidence that CEO characteristics strongly influence firm outcomes.

Within the “Big Five” framework of personal characteristics (Costa et al. 1995), we focus on the personal trait of extraversion. Extraversion is the “tendency to be sociable, gregarious, and outgoing, [...], ambitious, dominant, and excitement seeking” (McCrae and John 1992). We focus on extraversion for two reasons. First, extroverted individuals tend to display aggressive, bold, and risky behavior (McCrae and John 1992), characteristics that likely influence important CEO decisions such as competitive behavior and entering new markets. In line with this, there is a large literature on the relevance of managerial extraversion for firm outcomes. In particular, managerial extraversion has been linked to higher levels of M&A activity (Malhotra et al. 2018), increased sales growth (Green et al. 2019), changes in capital structure (Lartey et al. 2020), and increased corporate social responsibility (Hrazdil et al. 2021). Second, extraversion is easily observed by outsiders (Connelly and Ones 2010), allowing perceived extraversion to influence investor behavior.

While different levels of managerial extraversion lead to different corporate decisions, there is no “one fits all” style that leads to optimal firm outcomes. In general, the psychology literature argues that the effectiveness of a professional reflects the combination of their personal characteristics and those of their work environment. The person-environment fit theory posits that the congruence between personal characteristics and those of their environment drives outcomes such as performance, productivity, and turnover (Su et al. 2015). In situations with high person-environment fit, the demands of the environment are met by the personal abilities (Kristow-Brown and Guay 2011). The related person-organization fit theory suggests that positive organizational outcomes are the result of high ability-demand fits or high needs-supplies fits within the firm (Kristof 1996, Morley 2007). In the CEO context, such a fit results from managerial characteristics that are appropriate for the organizational challenges faced by the firm.

Considerable research has been done on the fit between manager characteristics and firm strategy as well as its consequences. In general, the relevance of matching manager characteristics and firm strategy for firm success is often emphasized. More specifically, literature suggests that different manager profiles perform best when combined with different strategic types. For example, Leontiades (1982) argues that the firm should aim for either a steady state manager or an evolutionary manager², depending on its firm growth stage. Thomas et al. (1991) examine the fit between manager characteristics and firm strategy using the Miles and Snow typology (Miles et al. 1978) as a framework. Within this framework, Prospectors are understood to be innovative, to drive the development of new products and marketing technologies, and to enter new markets aggressively. Defenders focus on cornering and defending existing markets through highly efficient

² Leontiades (1982) defines the steady stage status as being “confined to competition within [the] respective industry or industries” whereas evolutionary status refers to “[following] a broader strategy, including changing industries by addition to, or divestment of, existing businesses”.

production. Thomas et al. (1991) find that different manager profiles are associated with different strategic types, and that the match between manager characteristics and strategic orientation impacts firm performance.

Other research examines the joint effect of specific managerial characteristics and firm strategies on firm performance. For example, a willingness to take risks and tolerate ambiguity is related to higher effectiveness in firms that focus on expansion, but to a lower effectiveness otherwise (Gupta and Govindarajan 1984). Similarly, managerial openness to experience increases firm performance in firms that follow a differentiation strategy, while managerial conscientiousness increases firm performance in firms that follow a cost leadership strategy (Ramdani et al. 2015). Finally, Wissema et al. (1980) argue that firms focused on growth and expansion require a “pioneer” or “conqueror” manager type for success. These types are characterized by high extraversion, flexibility, creativity, and energy.

In conclusion, prior literature suggests that the combination of CEO characteristics and firm strategy influences firm performance. Among these characteristics, managerial extraversion is a highly important characteristic and drives firm success in firms which focus on expansion, growth, and innovation (Wissema et al. 1980). In addition, characteristics that are strongly related to extraversion such as a willingness to take risks are associated with high effectiveness in such firms (Gupta and Govindarajan 1984). Consequently, managerial extraversion is directly related to a higher (lower) manager-strategy fit for firms that are focused on expansion (focused on efficiency).

2.2 Investor Perception of Manager-Strategy Fit

The research detailed above illustrates the relevance of manager-strategy fit for the firm’s performance and success. However, Harrison et al. (2020) note the importance of external

perception of the CEO as this perception can have significant consequences for the firm. Most importantly, the market's expectation regarding the firm's risk-return profile directly influences firm stock prices, the firm's ability to raise funds, and its cost of capital. As the firm's CEO strongly influences this risk-return profile, managerial characteristics influence market participants' perceptions. In particular, Harrison et al. (2020) find that a firm's stock volatility is linked to the CEO's levels of conscientiousness, neuroticism, and extraversion. This suggests that capital markets view CEO characteristics as important drivers of firm outcomes, and that this perception consequently impacts stock prices. Similarly, investor perception of CEO overconfidence is related to the firm's cost of equity capital (Aghazadeh et al. 2018), suggesting that capital markets price in the expected risk taking behavior of CEOs.

As CEO characteristics influence firm performance in combination with firm characteristics, we argue that external investors' perception of manager-strategy fit, rather than just the perception of the CEO, is an important object of study. In particular, literature has found that investors base their assessment of the firm and subsequent investment decision on their perception of CEO characteristics (Harrison et al. 2020). This is a consequence of investor expectations regarding the CEO's ability to generate returns from risky investments.

While these expectations are influenced by investors' perception of managerial extraversion, the manager-strategy fit literature indicates that such characteristics alone do not sufficiently describe the manager's chances of success. To the extent that investors view manager-strategy fit, rather than CEO characteristics alone, as drivers of firm success, this perception of fit may influence their assessment of the firm, their investment decisions, and consequently stock prices.

Combining these two streams of literature, we argue that firm outsiders may base their assessment of the firm not just on their perception of CEO extraversion, but on their perception of the combination of CEO extraversion and firm strategy. In line with the person-organization fit theory, the tendency of extroverted CEOs to take on entrepreneurial risk (e.g. Hirshleifer 2012, Lartey et al. 2020) may have different effects on firm performance depending on the environment. In particular, extroverted CEOs may be better suited to generate risky returns in firms which operate in volatile and growth-oriented environments. Investors may perceive this association and adjust their assessment of the firm and its expected future returns accordingly.

This line of argumentation extends and helps to explain the results of Harrison et al. (2020), who find that perceived extraversion is related to higher perceived riskiness of the firm, and that this risk does not relate to increased returns for extroverted CEOs. This contradicts standard finance theory, which posits that increased risk should be associated with higher average returns. We argue that the increased perceived riskiness of extroverted CEOs may only be associated with higher returns if the firm's environment complements the CEO's talents, i.e., when manager-strategy fit is high.

2.3 Hypothesis Development

We analyze firm outsiders' perception of manager-strategy fit, the effect of this perception on the assessment of the firm, and subsequent investment decisions. To do this, we first derive expectations which combinations of managerial extraversion and firm type lead to high or low manager-strategy fit. We focus on the characteristic of extraversion as it has been shown to be of high relevance for managerial decision making, affects manager-strategy fit in combination with firm strategy, and is easy to assess for outsiders. For the construct of firm strategy, we use the Miles-Snow typology (Miles et al. 1978). In particular, we expect extroverted managers to be more

effective when managing Prospector firms than when managing Defender firms. We define Prospectors as firms that aim to differentiate themselves from competition, aggressively expand, enter new markets, and invest in innovation. We define Defenders as firms that focus on defending existing markets and on being cost efficient. Figure 1 illustrates the expected associations.

[Insert Figure 1 here]

We first analyze whether investors' perception matches the predictions on manager-strategy fit from literature, which suggests that extroverted managers are most effective when managing Prospector firms. Hypothesis 1 focuses on whether investors' perception reflects this, i.e., whether investors' perception of managerial extraversion influences their perception of manager-strategy fit.

Hypothesis (H1): *Investors perceive manager-strategy fit as higher if the manager of a Prospector (Defender) firm is perceived as more (less) extroverted.*

If investors perceive extroverted managers as a better fit for Prospector firms, this perception may influence their investment decisions. High manager-strategy fit is expected to lead to better firm outcomes (Thomas et al. 1991), which may lead investors who perceive manager-strategy fit as high to view the firm as a better investment. Consequently, we formulate hypothesis 2:

Hypothesis (H2): *Investors are more willing to invest in firms if the manager of a Prospector (Defender) firm is perceived as more (less) extroverted.*

3. Experimental Design

3.1 Setting and Participants

We conduct an experiment with a 2x3 between-subjects design.³ We first manipulate subjects' perception of managerial extraversion. In order to do this, we make use of literature in the fields of linguistics and psychology, which provides evidence of a robust link between individuals' speech rate and extraversion. In particular, experimental evidence suggests that extroverted individuals speak faster (Koomen and Dijkstra 1975, Feldstein and Sloan 1984, Dewaele and Furnham 2000). In addition, a substantial body of literature finds that speed of speech influences the perception of the listener (Scherer 1974; Street and Brady 1982; Thakerar and Giles 1981).

Building on this literature, we manipulate perceived CEO extraversion through an audio treatment. Subjects are randomly assigned to groups which differ in the description of the firm as well as the speech rate of the audio treatment. They are then given information on the fictional firm *Anderson Corp.*, which is described either as a Prospector or Defender firm. Next, they are instructed to listen to an excerpt from a recent interview with the firm's CEO, James Miller. The speech rate of this interview differs between groups (fast vs. normal vs. slow).

We specifically use the general setting of an interview over settings such as conference calls or analyst days as we seek to omit any information related to the firm's earnings or performance. This allows us to eliminate any concerns regarding the effect of speech rate message processing. *Anderson Corp.* is active in the household electronics industry. This industry was deliberately chosen to minimize the effects of subjects' attitudes towards the firm. Given that both firm types operate in the same industry, this design choice should not systematically affect our results.

³ See Appendix A.1 for the experimental material.

Participants were acquired through the survey hosting site Prolific.⁴ Prolific is an established way of acquiring non-professional subjects with certain filter criteria. The filtering of participants is a commonly accepted practice in the experimental literature (e.g., Libby et al. 2002). First, subjects need to be native English speakers, as the audio treatment is in English. Second, we only include subjects who have experience with personal investments in stocks or index funds. These subjects are arguably a good representation of retail investors who may listen to vocal disclosures because they are interested in the firm for personal investment purposes. Prior literature in the field of accounting and finance provides extensive evidence that participants with investment experience from survey hosting websites like MTurk and Prolific are a sufficient proxy for retail investors (e.g., Barcellos and Kadous, 2022). Furthermore, we expect that only retail investors with some level of financial literacy and engagement are likely to evaluate CEO characteristics in order to assess manager-strategy fit. Consequently, our participant screening arguably increases the external validity of our experiment.

Overall, a total of 863 subjects participated in our experiment on November 11 and 18, 2021.⁵ An online experiment does not allow us to control the audio quality with which subjects listen to the treatment. Consequently, we include a control question that enables us to exclude any responses where subjects indicate that they understood only little of what the speaker was saying. Furthermore, we also exclude responses where the completion times for different stages of the experiment indicate that subjects did not fully listen to the audio treatment. We also removed the 1% fastest subjects, who completed the experiment in under 300 seconds. The completion time of

⁴ Please refer to <https://prolific.co/>. Amazon MTurk is often used for such tasks. However, recent evidence documents a substantial decrease in MTurk data quality over the year 2018 (Chmielewski and Kucker, 2019) as well as systematic issues that threaten the quality of MTurk data (Dennis et al. 2020). To the best of our knowledge, there are no similar public concerns for Prolific.

⁵ We conduct our experiment on two days to avoid any systematic distortion due to day-specific external influences.

these subjects deviated significantly from that of other subjects, suggesting that they did not complete the experiment thoroughly and carefully. Our final sample consists of 811 subjects. At the time of the experiment, our subjects were on average 37 years old. 62.39 % are female. 50% of our subjects are from the United States, 29% from the United Kingdom, 7% from Canada, and 14% from other countries such as Ireland and South Africa. It took them an average of 9.4 minutes to complete the survey. Subjects earned an average flat rate of \$2.30 for participating. In addition to their experience with investments in stocks and index funds, subjects had completed an average of 2.35 college courses in accounting or finance. This shows that our subjects are a fair representation of interested non-professional investors who have some knowledge about finance.

3.2 Procedure and Treatment

Subjects are first provided with basic information about the experimental procedure. We clearly state that subjects will be asked about their perception regarding the firm and its CEO. This ensures that subjects do not expect any psychological or behavioral surprises to occur during the experiment.

Next, subjects read a description of *Anderson Corp.* which explains both the firm's areas of business (which is the same for both versions of the description) and its strategic type (which differs between the two versions of the description). The Defender type version of the firm is described as efficient, reliable, and robust. The Prospector type version is described as innovative, flexible, and willing to take risks. Afterwards, subjects listen to a speech sample, described as an excerpt from an interview, in which a female reporter asks Mr. Miller, the CEO of *Anderson Corp.*, to talk about the firm. The CEO then provides a spoken description of *Anderson Corp.*'s history and products. The firm history of the two types is identical for large parts of the treatment. In the later part of the treatment, the firm type is detailed again. This ensures that subjects understand which firm type

they are dealing with. The Defender firm is described as well-established and efficient, while the Prospector firm is described as innovative and flexible.⁶

The speech sample is read by a native English-speaking professional voice actor at three different speech rates (fast, normal, and slow) for each firm type (Prospector and Defender), resulting in six different audio treatments. In line with linguistics and psychology literature, we approximate speed of speech by words per minute (wpm). Apple et al. (1979) indicate that the average (normal) speech rate in an interview situation is 180 wpm.⁷ Thus, we assume that this is the ratio an average investor perceives as normal for an interview with a manager. Our normal speed treatment approximates this value with a rate of 171 wpm. Prior experimental studies use between 195 and 220 wpm⁸ to imitate fast talking (Miller et al. 1976; Smith and Shaffer 1991; Smith and Shaffer 1995). Our fast audio treatment lies within that range with a rate of 202 wpm. For reasons of consistency, we also include a slow audio treatment. Tauroza and Allison (1990) indicate that a range of 120-160 wpm is perceived as moderately slow in an interview situation. Again, our slow audio treatment lies within that range with a rate of 150 wpm. Results of a control question clearly show that subjects recognize the fast and slow treatments as such.

The text contains scripted disfluencies and other speech inefficiencies to make the speech sample sound natural. We take all possible measures to avoid variation in the results that may occur due to differences between treatments other than speed of speech. Consequently, these disfluencies arguably do not affect the internal validity, but increase the external validity of our experiment.

⁶ See Appendix A.3. Both audio treatments necessarily vary to a certain degree. However, we ensure that the wording differences are minimal and that the total word count is identical.

⁷ This is largely consistent with Tauroza and Allison (1990) who document that the average speech rate for interviews held in British English is 187 wpm. Anecdotal evidence regarding the perception of our audio treatments supports these numbers.

⁸ There is no clear, uniform definition of fast talking. It is rather context dependent and cannot be expressed in terms of a general number of words per minute.

3.3 Dependent Variables

To measure perceived extraversion, we infer subjects' perception of CEO's extraversion based on their perception of the audio treatment. Namely, subjects rate the CEO on a variety of personality traits that prior literature has linked to extraversion.⁹ Subjects are asked to which degree they agree that the adjectives of “*energetic*”, “*enthusiastic*”, “*adventurous*”, “*quiet*”, “*inactive*”, and “*shy*” describe the CEO's personality on a 5-point Likert scale ranging from “*not at all*” to “*very*”. Adjectives are taken from characteristics of extraversion summarized in Wilt and Revelle (2009). We use the inverse for half of the adjectives, e.g., “*quiet*” instead of “*talkative*” for extraversion, in order to increase the internal validity of this measurement approach. Furthermore, we also include “*inflexible*”, “*curious*”, “*creative*”, “*disciplined*”, “*irresponsible*”, and “*punctual*” to avoid signaling that we are interested in the CEO's extraversion.¹⁰ As our measurement of CEO's extraversion is based on multiple characteristics, we perform a principal component analysis (PCA) to construct a comprehensive measure of extraversion. Prior literature indicates that PCA is a valid instrument to capture co-movement in variation among variables that likely reflects the overarching pattern of interest (Jolliffe and Cadima 2016).

To test H1, we elicit the subjects' perception of manager-strategy fit directly by asking “*Do you think James Miller is the right CEO for Anderson Corp.?*” and more indirectly by asking “*Do you think that Anderson Corp. will be successful in the future?*”. Subjects answer on a 5-point Likert scale ranging from “*definitely not*” to “*definitely yes*”. The former construct directly asks the subjects' perception of manager-strategy fit, while the latter infers investors' perception of

⁹ For a complete summary and detailed references to prior literature, please refer to Appendix A.4.

¹⁰ We randomize the display order of the different adjectives to ensure that the scoring is unbiased by the sequence of the adjectives. “*inflexible*”, “*curious*”, and “*creative*” are correlated with the personality trait of openness (McCrae and Costa 1997), whereas “*disciplined*”, “*irresponsible*”, as well as “*punctual*” can be associated with conscientiousness (Roberts et al. 2014).

manager-strategy fit by assuming that future success is largely dependent on the CEO's decisions on key strategic matters. We use both constructs as independent outcome variables for our analyses.

In order to test H2, we use several established constructs that enable us to infer the subjects' willingness to invest. We use the concept of willingness to invest as our dependent variable for several reasons. Since we do not give the subjects financial information, valuation judgments such as EPS forecasts are infeasible. In addition, asking for willingness to invest also allows subjects' subconscious response to influence the outcome. The investment decision is also arguably one of the most relevant metrics for the non-professional investor when dealing with personal finance.

In line with prior literature, we ask subjects "*How attractive is an investment in Anderson Corp. stock as part of your diversified portfolio?*" and "*How likely are you to invest in Anderson Corp. stock as part of your diversified portfolio?*" (e.g., Barcellos and Kadous, 2022; Rennekamp and Witz, 2021). The subjects respond on a 101-point scale ranging from "*not at all attractive*" ("*very unlikely*") to "*very attractive*" ("*very likely*") for the first (second) question. In a third question, we also directly ask "*Assume you have \$10,000 available to invest in individual stocks. How much of your \$10,000 would you invest in Anderson Corp. stock?*". Similar to Barcellos and Kadous (2022), we rescale this variable to the same 101-point scale as the previous two dependent variables. Additionally, we also ask the subjects to respond to the question "*How risky do you judge an investment in Anderson Corp. stock to be?*" on a 101-point scale ranging from "*not at all risky*" to "*extremely risky*". In line with prior literature, we analyze each of the constructs independently of each other to get more detailed insights into the subjects' willingness to invest.

We further ask subjects additional validation questions to provide additional evidence that the observed effect is caused by the manager-strategy fit mechanism. We ask for subjects' perception of the firm's strategy to control that the firm type was perceived correctly. Subjects use

a 5-point Likert scale to rate how well the firm's strategy is described by the words "*innovation*", "*state-of-the-art products*", "*risk taking*", "*flexibility*", "*cost efficiency*", "*reliability*", "*risk aversion*", and "*stability*". Words are derived from the characteristics associated with Prospector and Defender firms according to the Miles-Snow typology (Miles et al. 1978). We expect subjects who were allocated to a Prospector (Defender) group to view the first (last) four words as fitting. Financial literacy questions and basic demographic questions regarding the subjects' age, gender, and other socioeconomic factors conclude the experiment.

We illustrate our hypotheses as well as the constructs that we use to measure the variables of interest in Figure 2.

[Please insert Figure 2 here]

4. Results

4.1 Measurement of Perceived Extraversion and Validation Check

In order to test the effect of speed of speech on perceived managerial extraversion, we first derive an extraversion measure from the subjects' evaluation of the adjectives "*energetic*", "*enthusiastic*", "*adventurous*", "*quiet*", "*inactive*", and "*shy*". We apply a principal component analysis (PCA) to get a comprehensive measure of CEO's perceived extraversion by capturing the co-movement in variation among the adjective variables. Table 1 displays the results of our PCA.

[Please insert Table 1 here]

Panel A of Table 1 indicates that the first component has an eigenvalue of 3.44 and explains 57.3% of the variance. As indicated in Panel B, the factors of the adjectives which are expected to be positively correlated with extraversion load positively, i.e. "*energetic*" (+0.46), "*enthusiastic*" (+0.46), and "*adventurous*" (+0.41). Meanwhile, all inversely associated adjectives load

negatively: “*quiet*” (-0.36), “*inactive*” (-0.38), “*shy*” (-0.38). None of the remaining principal components has a suitable factor loading. Hence, we argue that the first component is a suitable composite indicator to approximate perceived managerial extraversion (*Extraversion*).

Before we start testing our hypotheses, we validate our treatment by investigating whether investors characterize faster speaking managers as more extroverted. We explicitly test the association from literature (e.g., Koomen and Dijkstra 1975) to ensure that the effect of speech rate on perceived extraversion holds, and that no context-specific factors bias the result. Therefore, we regress our extraversion measure on speech rate. The described activities of the Prospector type likely sound more adventurous and risky, which are attributes related to extraversion. Consequently, we control for firm type to alleviate concerns that perceived extraversion is driven by the firm description rather than the manager’s speed of speech. Table 2 shows the regression results.

[Please insert Table 2 here]

Descriptive evidence in Panel A of Table 2 indicates that subjects perceive fast speaking managers as more extroverted both in the total sample and for both firm types. Regression results (Panel B) are also in line with our expectations. As indicated by the descriptive evidence, subjects perceive the manager as significantly more extroverted when speed of speech is higher (p -value = 0.000, one-tailed). This strongly suggests that the positive relationship between speed of speech and perceived extraversion holds in this setting.

Our extraversion measure ranges from -5.59 to 3.24. The average perceived extraversion for the fast speaking manager ($wpm = 202$) is 1.4 higher than for a slow speaking manager ($wpm = 150$). Furthermore, we also find a positive and statistically significant effect of firm type on

perceived extraversion (p-value = 0.086, two-tailed), suggesting that the CEO of a Prospector type firm is perceived as more extroverted independently of speech rate. This result may indicate that subsequent results may not only be driven by our audio treatments, but also by subjects' anticipation that more extroverted managers select themselves into Prospector firm types. However, the effect of firm type on perceived extraversion is both smaller and less significant than the effect of speed of speech on perceived extraversion. Consequently, we view this result as evidence that subjects' perceived extraversion is predominantly driven by our treatment.

4.2 Assessment of Manager-Strategy Fit (H1)

For H1, we test whether investors perceive manager-strategy fit to be higher if the manager is viewed as more extroverted (introverted) and the firm is a Prospector (Defender). We elicit the perceived manager-strategy fit by asking subjects to evaluate whether the CEO is the right one for the firm (*RightCEO*) and whether the firm will be successful in the future (*SuccessFuture*). We then regress the resulting binary variables on perceived managerial extraversion (*Extraversion*), the underlying firm type (*Prospector*), as well as their interaction (*Extraversion x Prospector*). H1 suggests that the interaction term should load positively. We use one-tailed p-values when testing our hypotheses as our hypotheses are directional. Table 3 presents the results.

[Please insert Table 3 here]

Results are in line with our expectations. Subjects assess manager-strategy fit as higher when an extroverted (introverted) CEO is managing a Prospector (Defender) firm. This combination has a significantly positive effect on subjects' perception of whether Mr. Miller is the right CEO for the firm (p-value = 0.093, one-tailed). Furthermore, the combination is also associated with a higher perceived likelihood that the firm will be successful in the future (p-

value = 0.013, one-tailed). While this question is not directly related to the CEO, firm success is strongly related to CEO success as the CEO is the decision maker for key strategic matters in the firm. In economic terms, the rating of *RightCEO (SuccessFuture)* increases by 4.3% (6.1%) of perceived extraversion when the firm is a Prospector. We also find that subjects rate manager-strategy fit significantly higher when the manager is extroverted, irrespective of firm strategy, which is in line with prior literature on managerial extraversion (Green et al. 2019). In conclusion, our results suggest that subjects' perception of manager-strategy fit is associated with perceived managerial extraversion and firm strategy. This is evidence supporting H1.

4.3 Manager-Strategy Fit and Willingness to Invest (H2)

For H2, we analyze the behavioral consequences of perceived managerial extraversion. In particular, we test whether participants are more willing to invest in a firm if they perceive the manager-strategy fit to be higher. To do this, we regress our variables that measure willingness to invest on perceived extraversion (*Extraversion*), firm type (*Prospector*), and their interaction term. If the combination of perceived extraversion and strategy type had consequences for investors' decisions, we would expect the interaction term to load negatively for the perceived riskiness of the investment in the firm, and positively for all other dependent variables. Table 4 shows the regression results.

[Please insert Table 4 here]

Results provide mixed support for the idea that perceived manager-strategy fit influences investment decisions. For the case of a CEO who has a higher level of perceived extraversion and manages a Prospector firm (*Extraversion* x *Prospector*), we find an increase in subjects' judgements of the firms' investment attractiveness (*Attractive*; p-value = 0.023, one-tailed) and a

decrease in riskiness (*Risky*; p -value = 0.042, one-tailed). This is evidence in favor of H2. For such firms, the perceived attractiveness (riskiness) of the investment, on a scale from 1 to 100, increases by 160% (decreases by 130%) of the value of perceived extraversion. However, we do not find statistically significant associations for the amount of capital subjects would invest (*Amount*; p -value = 0.188, one-tailed) and their likelihood to invest (*Likely*; p -value = 0.251, one-tailed), which is not in line with H2. In combination, these results suggest that perceived manager-strategy fit influences the perceived attractiveness and riskiness of an investment in the firm, but does not alter the actual amount of their investment or the likelihood of investing.

We also find that subjects rate firms as less risky investments when they perceive managerial extraversion as higher, regardless of firm type (p -value < 0.01, two-tailed). This result appears to contradict Harrison et al. (2020) who document that managerial extraversion is positively correlated with firm stock risk. The resulting differences may be explained by two factors. First, by comparing the past volatility of the firm's stock to the market to approximate firm risk, the approach of Harrison et al. (2020) is primarily based on the past whereas our approach is forward-looking. Second, the results of Harrison et al. (2020) reflect the entire capital markets, which is largely driven by institutional and sophisticated investors (McCabe 2021), while our subjects serve as proxy for retail investors and may differ from the overall market in their assessment of firms.

4.4 Robustness Check - Subjects' Understanding of Firm Strategy

As our analysis on investors' perception of manager-strategy fit strongly depends on whether the subjects understand the firm's strategy, we include follow-up questions that ask participants to indicate how well the words "*innovation*", "*state-of-the-art products*", "*risk taking*", "*flexibility*", "*cost efficiency*", "*reliability*", "*risk aversion*", and "*stability*" describe the firm's strategy (5-point

Likert scale ranging from “*no fit*” to “*high fit*”). Table 5 shows the differences in means for all words conditional on the firm type.

[Please insert Table 5 here]

Our results indicate that the subjects understood the firm’s strategy well, as the differences between means for the responses clearly point towards the correct firm type. More specifically, subjects perceive the Prospector as more innovative, offering state-of-the-art products, more flexible, and more willing to take risks (all p -values < 0.01 , two-tailed). Contrarily, the Defender is evaluated as more cost efficient, reliable, risk averse, and more stable (all p -values < 0.01 , two-tailed). These results strongly suggest that subjects understood the type of firm that they were assigned.

5. Conclusion

We provide experimental evidence that firm outsiders infer manager-strategy fit from managerial extraversion, and how their perception of manager-strategy fit shapes their investment decisions.. Building on linguistics and psychology literature, we manipulate subjects’ perception of managerial extraversion by varying the speed of speech of a speech sample of the firm’s CEO. In our main analyses, we find that subjects perceive manager-strategy fit as higher if a manager who is perceived as more (less) extroverted manages a Prospector (Defender) firm. Investors consequently judge an investment in such firms as more attractive and less risky. However, we find that subjects’ likelihood of investing and the amount invested do not increase for such firms. This result is surprising, as it may indicate that perceived manager-strategy fit influences investors’ assessment of the firm, but not their investment decisions.

Overall, our results suggest that investors' perception of managerial extraversion impacts their assessment of manager-strategy fit. As a result of this, perceived managerial extraversion may partly influence investment decisions. This has implications for the literature on the importance of manager-strategy fit as well as the literature firm outsiders' perception of the firm.

Our study is subject to some limitations. First, we use an online experiment. This allows us to ensure high internal validity. However, generalization of our results may be negatively impacted by this setting. Second, we use two distinct firms which follow the Miles-Snow typology, and three distinct speech rates. Results may differ for other firm descriptions, other firm types, and other speech rates. Finally, we cannot rule out that subjects view the firm's strategy as a result of the manager's extraversion if they believe that the CEO is responsible for strategic choices and that extraversion affects those choices. In this case, our results may be biased.

Further research may build on our results and address other aspects of information regarding manager-strategy fit. Examinations of perceived manager-strategy fit for firms of different industries and stages of the firm life cycle may yield valuable results. Additionally, other information channels of manager characteristics such as word choice may be analyzed with regards to investor perception. Finally, we have limited our focus managerial extraversion due to its high importance for firm outcomes. However, research on investor perception of other "Big Five" personality traits such as conscientiousness may complement our results.

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Appendix A: Experimental Material

A.1: Introduction to the experiment (equal for all subjects' groups)

*“In the following, you will be provided with a short description of **Anderson Corp.** Then you will listen to a short excerpt from a recent interview with **Anderson Corp.'s CEO** (Chief Executive Officer), **James Miller**.*

Afterwards, you will be asked some questions about your thoughts on the company and its CEO.”

A.2: Firm description

Defender

“Anderson Corp. is a well-known name in the household electronics industry. Its most important products are kitchen appliances, such as refrigerators, blenders, and toasters. For all its products, Anderson offers long lasting quality guarantees and personalized customer service.

Anderson Corp. is proud of its experience and the efficiency and smoothness of its operations. The company operates efficiently because it is vertically integrated, so it owns every part of its production. Its customers can always rely on robust quality controls, which are in place on every level. Anderson’s mission is to understand both its customers and its products in order to build long lasting relationships with customers.”

Prospector

“Anderson Corp. is an exciting and innovative player in the household electronics industry. It offers a huge selection of state-of-the-art, innovative products and services. Anderson seeks to always find new ways to offer its customers value by constantly introducing new items that are intelligent, connected, and exciting.

Anderson Corp. is proud of its flexibility, innovative thinking, and willingness to try new things. In order to reach its goals, the company is willing to take some risks and enter new markets. Anderson aims to constantly redefine what being a household electronics company means and what everyday electronics can do. Anderson’s mission is to appeal to customers through different, intelligent solutions.”

A.3: Text of audio treatment¹¹

Female interviewer:

“Mr. Miller, could you tell us a little bit about your company?”

Defender (374 words)

“Uhm, sure. Our company was founded in 1947. So, back then founder Robert Anderson started to build small, you know, electronic devices in his garage. In the early days, our founder wanted to grow the company by building, uhm, high-quality, reliable kitchen appliances – you know, things like toasters and coffeemakers. And that strategy worked really well for him. After just a few years, the company had a, uhm, a market share of over 25% in the United States. Our sales were around 15 million dollars, and our products were sold in some of the largest stores in the country. By the end of the ‘50s, we employed more than, I think, 1,000 people. During that time, we also started producing things like, for example, refrigerators, freezers, ovens, and microwaves.

You know, of course, in those days, the economy in the US was growing pretty fast, so obviously, that helped us. Our company did really well, and within basically a couple of years, we were one of the top brands on the market. And we had a great reputation, too, because, uhmm, our products were known for their high quality. You know, we had some competitors, especially from Europe and Asia, but we managed to fend them off.

Now, when I think back about why we were so successful, I would say that, uhm, we had several things going for us, right? Our technology has always been really cost efficient, really high quality. But also, our founder made sure to stay in, uhm, in close contact to his customers. For example, we had offices in all the big cities. And also, Robert Anderson kept doing deliveries personally, in

¹¹ Differences between the text of Defender and Prospector firms are underlined.

his own truck, you know, for quite some time. I think all that really helped to turn our company into what it is today.

Of course, nowadays we are a well-known name in, uhm, in the household electronics industry, right? We sell reliable, high quality kitchen appliances like fridges, toasters, and blenders. On top of that our product range includes stuff like, you know, vacuum cleaners and washing machines.

Alright, so I hope that answers your question! I think Anderson is a great company, and you know, I'm really happy and proud to serve as its CEO."

Prospector (373 words)

"Uhm, sure. Our company was founded in 1947. So, back then founder Robert Anderson started to build small, you know, electronic devices in his garage. In the early days, our founder wanted to grow the company by building, uhm, high-quality, reliable kitchen appliances – you know, things like toasters and coffeemakers. And that strategy worked really well for him. After just a few years, the company had a, uhm, a market share of over 25% in the United States. Our sales were around 15 million dollars, and our products were sold in some of the largest stores in the country. By the end of the '50s, we employed more than, I think, 1,000 people. During that time, we also started producing things like, for example, refrigerators, freezers, ovens, and microwaves.

You know, of course, in those days, the economy in the US was growing pretty fast, so obviously, that helped us. Our company did really well, and within basically a couple of years, we were one of the top brands on the market. And we had a great reputation, too, because, uhmm, our products were known for their high quality. You know, in those years, we also started to branch out a bit, so we entered markets in Europe and Asia.

Now, when I think back about why we were so successful, I would say that, uhm, we had several things going for us, right? Our technology has always been really innovative, really exciting. But

also, our founder made sure to stay in, uhm, in close contact to his customers. For example, we had offices in all the big cities. And also, Robert Anderson kept doing deliveries personally, in his own truck, you know, for quite some time. And I think all that really helped to turn our company into what it is today.

Of course, nowadays we are a well-known name in uhm, in the household electronics industry, right? We always try to find new ways to make our products exciting and valuable. You know, our product range includes some really innovative and intelligent stuff.

Alright, so I hope that answers your question! I think Anderson is a great company, and you know, I'm really happy and proud to serve as its CEO."

Appendix B: Variable Definitions

Label	Definitions
<i>Speed</i>	Measures the speed of speech of the audio treatment in words per minute (wpm). The fast (normal; slow) audio treatment is spoken at a rate of 202 wpm (171 wpm; 140 wpm).
<i>Prospector</i>	Indicator variable equal to 1 if the subject is allocated to the Prospector condition, 0 otherwise.
<i>Extraversion</i>	Measures the perceived level of extraversion calculated as the first principal component of subjects' responses to how well the adjectives of " <i>energetic</i> ", " <i>enthusiastic</i> ", " <i>adventurous</i> ", " <i>quiet</i> ", " <i>inactive</i> ", and " <i>shy</i> " describe CEO's personality.
<i>Quiet</i>	Responses to the question of how well the adjective of " <i>quiet</i> " describes the CEO's personality on a 5-point Likert scale ranging from " <i>not at all</i> " to " <i>very</i> ".
<i>Inactive</i>	Responses to the question of how well the adjective of " <i>inactive</i> " describes the CEO's personality on a 5-point Likert scale ranging from " <i>not at all</i> " to " <i>very</i> ".
<i>Energetic</i>	Responses to the question of how well the adjective of " <i>energetic</i> " describes the CEO's personality on a 5-point Likert scale ranging from " <i>not at all</i> " to " <i>very</i> ".
<i>Enthusiastic</i>	Responses to the question of how well the adjective of " <i>enthusiastic</i> " describes the CEO's personality on a 5-point Likert scale ranging from " <i>not at all</i> " to " <i>very</i> ".
<i>Adventurous</i>	Responses to the question of how well the adjective of " <i>adventurous</i> " describes the CEO's personality on a 5-point Likert scale ranging from " <i>not at all</i> " to " <i>very</i> ".
<i>Shy</i>	Responses to the question of how well the adjective of " <i>shy</i> " describes the CEO's personality on a 5-point Likert scale ranging from " <i>not at all</i> " to " <i>very</i> ".
<i>Innovation</i>	Responses to the question of how well the concept of " <i>innovation</i> " describes the firm's strategy on a 5-point Likert scale ranging from " <i>not fit</i> " to " <i>high fit</i> ".
<i>RightCEO</i>	Responses to the question of whether Mr. Miller is the right CEO on a 5-point Likert scale ranging from " <i>definitely not</i> " to " <i>definitely yes</i> ".
<i>SuccessFuture</i>	Responses to the question of whether the firm will be successful in the future on a 5-point Likert scale ranging from " <i>definitely not</i> " to " <i>definitely yes</i> ".
<i>Attractive</i>	Responses to the question about the attractiveness of an investment in the firm on a 101-point scale ranging from " <i>not at all attractive</i> " to " <i>very attractive</i> ".

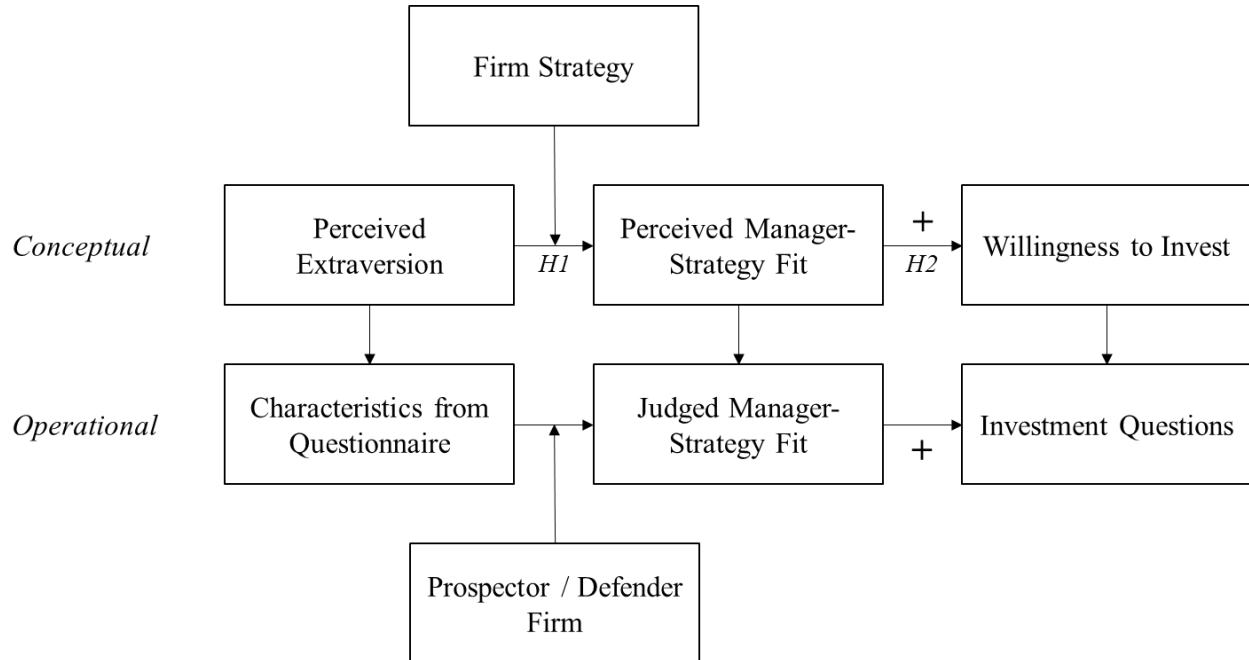
<i>Amount</i>	Responses to the question regarding the investment amount in the firm on a scale with the endpoints of 0 USD and 10,000 USD. We rescale the responses to a 101-point scale.
<i>Likely</i>	Responses to the question about the likelihood of an investment in the firm on a 101-point scale ranging from “ <i>very unlikely</i> ” to “ <i>very likely</i> ”.
<i>Risk</i>	Responses to the question about the riskiness of an investment in the firm on a 101-point scale ranging from “ <i>not at all risky</i> ” to “ <i>extremely risky</i> ”.
<i>SOAProducts</i>	Responses to the question of how well the concept of “ <i>state-of-the-art products</i> ” fits the firm’s strategy on a 5-point Likert scale ranging from “ <i>not fit</i> ” to “ <i>high fit</i> ”.
<i>CostEfficiency</i>	Responses to the question of how well the concept of “ <i>cost efficiency</i> ” fits the firm’s strategy on a 5-point Likert scale ranging from “ <i>not fit</i> ” to “ <i>high fit</i> ”.
<i>Reliability</i>	Responses to the question of how well the concept of “ <i>reliability</i> ” fits the firm’s strategy on a 5-point Likert scale ranging from “ <i>not fit</i> ” to “ <i>high fit</i> ”.
<i>Flexibility</i>	Responses to the question of how well the concept of “ <i>flexibility</i> ” fits the firm’s strategy on a 5-point Likert scale ranging from “ <i>not fit</i> ” to “ <i>high fit</i> ”.
<i>RiskTaking</i>	Responses to the question of how well the concept of “ <i>risk taking</i> ” fits the firm’s strategy on a 5-point Likert scale ranging from “ <i>not fit</i> ” to “ <i>high fit</i> ”.
<i>RiskAversion</i>	Responses to the question of how well the concept of “ <i>risk aversion</i> ” fits the firm’s strategy on a 5-point Likert scale ranging from “ <i>not fit</i> ” to “ <i>high fit</i> ”.
<i>Stability</i>	Responses to the question of how well the concept of “ <i>stability</i> ” fits the firm’s strategy on a 5-point Likert scale ranging from “ <i>not fit</i> ” to “ <i>high fit</i> ”.

Figure 1: Expected Associations Managerial Extraversion and Firm Type

	Introverted (Low speed of speech)	Extroverted (High speed of speech)
Prospector	Low fit	High fit
Defender	High fit	Low fit

Notes: Figure 1 displays the expected outsiders' perception of manager-strategy fit based on the combination of managerial extraversion (intro- vs. extroverted) and firm type (Prospector vs. Defender).

Figure 2: Predictive Validity Framework



Notes: Figure 2 displays the predictive validity framework used in our analyses. The conceptual (upper) layer shows the theoretical constructs whereas the operational (lower) layer illustrates the measures used to approximate the theoretical constructs of interest.

Table 1: Principal Component Analysis

Panel A: Principal Components				
<i>Component</i>	<i>Eigenvalue</i>		<i>Proportion</i>	<i>Cumulative</i>
Component 1	3.435		0.573	0.573
Component 2	1.039		0.173	0.746
Component 3	0.603		0.101	0.846
Component 4	0.373		0.062	0.908
Panel B: Eigenvectors				
<i>Variable</i>	<i>Component 1</i>	<i>Component 2</i>	<i>Component 3</i>	<i>Component 4</i>
<i>Quiet</i>	-0.355	0.601	-0.212	-0.498
<i>Inactive</i>	-0.375	0.115	0.906	0.116
<i>Energetic</i>	0.461	0.294	0.116	0.286
<i>Enthusiastic</i>	0.458	0.301	0.040	0.316
<i>Adventurous</i>	0.406	0.438	0.238	-0.448
<i>Shy</i>	-0.383	0.508	-0.251	0.596

Notes: Table 1 displays the Principal Component Analysis to determine CEO's extraversion based on the variation in subjects' judgement on the selected adjectives.

Table 2: Perceived Managerial Extraversion

Panel A: Descriptive Statistics

	Speed			
	150 wpm	171 wpm	202 wpm	TOTAL
Prospector = 0	mean = -0.993 sd = 1.995 n = 140	mean = -0.102 sd = 1.811 n = 139	mean = 0.622 sd = 1.598 n = 141	mean = -0.156 sd = 1.921 n = 420
Prospector = 1	mean = -0.344 sd = 1.825 n = 120	mean = 0.255 sd = 1.672 n = 134	mean = 0.867 sd = 1.488 n = 137	mean = 0.285 sd = 1.727 n = 391
TOTAL	mean = -0.693 sd = 1.942 n = 260	mean = 0.073 sd = 1.75 n = 273	mean = 0.742 sd = 1.547 n = 278	mean = 0.056 sd = 1.842 N = 811

Panel B: Determinants of Extraversion

(1)	
Variables	Extraversion
Speed	0.027*** 0.000†
Prospector	0.414* 0.086
Constant	-4.838*** 0.000
N	811
R ²	0.111

Notes: Table 2 Panel A shows the descriptive statistics for CEO's extraversion depending on the treatment. *Extraversion* measures the subject's evaluation of the speaker's extraversion level, approximated by the first principal component of the selected adjectives. *Speed* is the speech rate of the treatment measured as words per minute (150 vs. 171 vs. 202 wpm). *Prospector* indicates the underlying firm type and is equal to 1 (0) if the firm is a Prospector (Defender). Table 2 Panel B illustrates the determinants of extraversion, estimated with OLS regressions. p-values are italicized. *, **, *** indicate significance at the 10 percent, 5 percent, and 1 percent levels. † p-values are one-tailed for directional predictions.

Table 3: Assessment of Manager-Strategy Fit

Variables	(1) <i>RightCEO</i>	(2) <i>SuccessFuture</i>
<i>Extraversion</i>	0.345*** <i>0.000</i>	0.163*** <i>0.000</i>
<i>Prospector</i>	-0.041 <i>0.487</i>	-0.060 <i>0.226</i>
<i>Extraversion x Prospector</i>	0.043* <i>0.093†</i>	0.061** <i>0.013†</i>
<i>Constant</i>	3.511*** <i>0.000</i>	3.933*** <i>0.000</i>
N	811	811
R ²	0.393	0.200

Notes: Table 3 illustrates the assessment of manager-strategy fit, estimated with OLS regressions. ***RightCEO*** indicates subjects' evaluation on whether the CEO is the right one for the firm on a 5-point Likert scale. ***SuccessFuture*** measures subjects' expectations regarding the firm's success in the future on a 5-point Likert scale. The dependent variables are the subjects' perceived extraversion, the firm's strategy, and their interaction. ***Extraversion*** measures the subject's evaluation of the speaker's extraversion level, approximated by the first principal component of the selected adjectives. ***Prospector*** indicates the underlying firm type and is equal to 1 (0) if the firm is a Prospector (Defender). p-values are italicized. *, **, *** indicate significance at the 10 percent, 5 percent, and 1 percent levels. † p-values are one-tailed for directional predictions.

Table 4: Manager-Strategy Fit and Willingness to Invest

Variables	(1) <i>Attractive</i>	(2) <i>Amount</i>	(3) <i>Likely</i>	(4) <i>Risky</i>
<i>Extraversion</i>	5.413*** <i>0.000</i>	3.214*** <i>0.000</i>	5.637*** <i>0.000</i>	-1.805*** <i>0.000</i>
<i>Prospector</i>	-2.756* <i>0.064</i>	-0.091 <i>0.956</i>	-2.249 <i>0.177</i>	5.242*** <i>0.000</i>
<i>Extraversion x Prospector</i>	1.636** <i>0.023†</i>	0.803 <i>0.188†</i>	0.612 <i>0.251†</i>	-1.309** <i>0.042†</i>
<i>Constant</i>	64.151*** <i>0.000</i>	28.265*** <i>0.000</i>	59.315*** <i>0.000</i>	35.381*** <i>0.000</i>
N	811	811	811	811
R ²	0.226	0.074	0.176	0.060

Notes: Table 4 illustrates the association between manager-strategy fit and subjects' willingness to invest, estimated with OLS regressions. All independent variables (*Attractive*, *Amount*, *Likely*, *Risky*) indicate subjects' willingness to invest into the firm. *Attractive* indicates the perceived attractiveness of an investment in the firm on a 101-point scale ranging from “not at all attractive” to “very attractive”. *Amount* indicates the amount the subject is willing to invest in the firm as part of a diversified portfolio on a scale from 0 to 10,000 USD, rescaled to a 101-point scale. *Likely* indicates the likelihood that the subject would invest in the firm as part of a diversified portfolio on a 101-point scale ranging from “very unlikely” to “very likely”. *Risky* indicates the subject's perceived riskiness of an investment in the firm on a 101-point scale ranging from “not at all risky” to “extremely risky”. The dependent variables are the subjects' perceived extraversion, the firm's strategy, and their interaction. *Extraversion* measures subjects' evaluation of the speaker's extraversion level, approximated by the first principal component of the selected adjectives. *Prospector* indicates the underlying firm type and is equal to 1 (0) if the firm is a Prospector (Defender). p-values are italicized. *, **, *** indicate significance at the 10 percent, 5 percent, and 1 percent levels. † p-values are one-tailed for directional predictions.

Table 5: Differences in mean firm strategy characteristics

	<i>Prospector = 0</i> (N = 420)	<i>Prospector = 1</i> (N = 391)	<i>t-test</i>	
	Mean	Mean	Diff.	p-value
<i>Innovation</i>	3.560	4.190	-0.64***	<i>0.000</i>
<i>SOAProducts</i>	3.740	4.130	-0.39***	<i>0.000</i>
<i>CostEfficiency</i>	4.000	3.460	0.54***	<i>0.000</i>
<i>Reliability</i>	4.470	4.100	0.37***	<i>0.000</i>
<i>Flexibility</i>	3.380	3.670	-0.29***	<i>0.000</i>
<i>RiskTaking</i>	2.590	3.260	-0.67***	<i>0.000</i>
<i>RiskAversion</i>	3.460	3.010	0.44***	<i>0.000</i>
<i>Stability</i>	4.380	3.990	0.39***	<i>0.000</i>

Notes: Table 5 displays the differences in mean for subjects' responses to firm characteristics, conditional on whether the firm is a Defender or Prospector type. For a detailed overview on the variables please see Appendix 1. *, **, *** indicate two-tailed significance at the 10 percent, 5 percent, and 1 percent levels. p-values are italicized.