FANTASY PRONENESS AND RESPONSIVENESS IN LEADERS: THE IMPACT OF CHARISMATIC AND PRAGMATIC LEADERS

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FANTASY PRONENESS AND RESPONSIVENESS IN LEADERS: THE IMPACT OF CHARISMATIC AND PRAGMATIC LEADERS

A THESIS APPROVED FOR THE DEPARTMENT OF PSYCHOLOGY

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Abstract

Charismatic, ideological, and pragmatic leadership have been identified as the three key styles of leadership. Leaders expressing each style are held to appeal to followers in different ways and through different mechanisms. In the present study, the appeal of charismatic and pragmatic leaders to followers was assessed, as well as follower fantasy proneness. After exposure to charismatic and pragmatic appeals, participants were asked to work on an educational task. It was found that the type of leader appeal, or leader style, did not interact with follower fantasy proneness in influencing performance. However, fantasy proneness did influence identification with the leader. The implications of these findings for understanding the appeal of charismatic and pragmatic leaders are discussed.

*Keywords:* leaders, followers, influences, fantasy, leadership styles
Fantasy Proneness and Responsiveness in Leaders: The Impact of
Charismatic and Pragmatic Leaders

Leadership, and leader performance, has been studied using a number of meta-theoretical models. For example, leadership has been studied with respect to the behaviors, such as consideration and initiating structure, that influence follower performance (Fleishman, 1953). Others have examined the abilities, skills, and personality characteristics that allow people to exhibit effective leadership behaviors (Mumford, Todd, Higgs, McIntosh, 2017; Zaccaro, Connelly, Repchick, Daza, Young, Kilcullen, Gilrane, Robbins, & Bartholomew, 2015). Still, others have examined how leaders interact with individual followers as an influence on follower motivation and performance (Graen & Uhl-Bien, 1995).

Although these models have value for understanding leadership and performance in leadership roles, in recent years attention has been focused on styles of leadership. For example, studies of charismatic leadership, and the closely related concept of transformational leadership (Mumford, 2006), indicate leader’s articulation of an evocative vision influences follower motivation, follower performance, and follower identification with the leader (Antonakis & Gardner, 2017; Banks, Engemann, Williams, Gooty, McCauley, & Medaugh, 2017; Shamir, House, & Arthur, 1993; Sosik, Avolio, & Kahai, 1997).

Mumford and his colleagues (Bedell-Avers, Hunter, & Mumford, 2008; Hunter, Cushenbery, Thoroughgood, Johnson, & Ligon, 2011; Ligon, Hunter, & Mumford, 2008; Mumford, 2006; Mumford, Antes, Caughron, & Friedrich, 2008) however, have proposed that charismatic leadership represents only one way which
leaders might formulate viable visions. Given the findings of Strange and Mumford (2005), which indicate leader visions are based on mental models, they argued that viable vision statements might be formulated based on three qualitatively different frameworks. More specifically, they argue that leaders may stress a desirable future where people act as causes (i.e. charismatic leadership), they may stress the need to return to a better past where the situation acts as a cause (i.e. ideological leadership), or they may stress the need to solve immediate problems where both the individual and the situational variables act as causes (i.e. pragmatic leadership).

The charismatic, ideological, and pragmatic styles are noteworthy because these stylistic differences lead to different styles by which leaders attempt to appeal to followers (Antonakis & Gardner, 2017). In this regard, however, certain characteristics of followers may lead the appeals of charismatic, ideological, and pragmatic leaders to prove more or less effective. One key candidate, given the complex nature of leader visions, is the extent to which followers are fantasy prone. Our intent in the present investigation is to assess the impact of leadership style (charismatic or pragmatic) on individuals high or low in fantasy proneness.

**Leadership Style**

It is commonly held that the key to outstanding leadership is the leader’s effective articulation of a compelling vision (Conger & Kanungo, 1998; Partlow, Medeiros, & Mumford, 2015). The vision leaders articulate serves a number of purposes: directing follower efforts, motivating followers, providing followers with meaning and identity, and providing a basis for establishing stable structure (Shamir, House, & Arthur, 1993). Visions, however, do not occur within a vacuum. Instead,
visions emerge from the mental model’s that leaders employ to understand the issues shaping firm performance or the team they are leading (Mumford, Hester, Robledo, Peterson, Day, Hougen, & Barrett, 2012; Mumford, 2006; Partlow, Medeiros, & Mumford, 2015; Strange & Mumford, 2002; 2005).

Mental models, in the simplest terms, involve establishing cause-outcome linkages (Goldvarg & Johnson-Laird, 2001). In complex systems, many causes and many outcomes exist. As a result, leaders may structure their understanding of events in different ways. Mumford (2006) argued that there are three distinct ways leaders formulate mental models. Charismatic leaders, for example, seek multiple positive outcomes in the future, seeing causes as controllable through followers. Ideological leaders seek a few transcendent outcomes, seeking a return to an idealized past through the actions of a cadre of close followers who act on situational causes to shape the events at hand. Pragmatic leaders, meanwhile, seek attainment of varying outcomes in the present where outcome attainment is influenced by both situational factors and the actions of followers.

In an initial test of this model, Mumford (2006) obtained academic biographies of 120 historically notable leaders. Leaders were classified as charismatic, ideological, or pragmatic, as well as either socialized or personalized. Judges coded rise to power for various behaviors such as problem-solving, communication, follower interactions, and developmental events. It was found that the behaviors evidenced by charismatic, ideological, and pragmatic leaders were, broadly speaking, consistent with the model. Thus, pragmatic leaders relied on expertise, charismatic leaders relied on communication to followers, and ideological leaders relied on a cadre of close
supporters using creative thinking to change the situation. Moreover, these differences among the leadership styles were related to key developmental experiences occurring earlier in their lives (Ligon, Hunter, & Mumford, 2008).

In another study along these lines, Hunter, Cushenbery, Thoroughgood, Johnson, and Ligon (2011) reviewed the biographies of 54 collegiate and NFL football coaches. Coaches biographies were coded with respect to the key variables Mumford (2006) held to characterize the mental models of charismatic, ideological, and pragmatic leaders (e.g. time frame, type of outcome sought, focus of causation, people vs situation, controllability of causes). They found that the key attributes of Mumford’s (2006) model of charismatic, ideological, and pragmatic leadership held. Put another way, findings suggested that charismatics focused on the future, ideologues on the past, and pragmatics on the present.

Other studies have shown charismatic, ideological, and pragmatic leaders differ from each other in a number of other ways. For example, they differ in how they interact (Bedell-Avers, Hunter, Angie, Eubanks, & Mumford, 2009), the conditions under which they will take action (Mumford, Espejo, Hunter, Bedell-Avers, Eubanks, & Connelly, 2007), the likelihood they will be assassinated while in office (Yammarino, Mumford, Serban, & Shirreffs, 2013), the stories or cases they use to guide action (Watts, Steele, & Mumford, In press), and the strategies they employ when working through business simulations (Hunter, Bedell-Avers, & Mumford, 2009). Not only has a rich body of evidence for this model been accrued in historiometric and performance simulation studies, but Bedell-Avers, Hunter, and Mumford (2008) have provided evidence using an experimental paradigm.
In the Bedell-Avers, Hunter, and Mumford (2008) study, a measure was developed to assess peoples preferred leadership style (e.g. charismatic, ideological, or pragmatic) for addressing leadership problems. On this measure individuals were presented with incident abstracts, one from each style of leadership, and were asked to select the leader they felt most similar to. In total, 12 items were presented and when scored for style preference reliabilities in the low .80’s were obtained. Subsequently, participants (e.g. undergraduates) were asked to solve a series of leadership problems involving consideration, initiating structure, participation, and change management. It was found that people evidencing different styles solved different types of leadership problems effectively. Moreover, it was found that most people were pragmatic or charismatic leaning, with relatively few ideologues emerging.

Vision and Fantasy

Although leader vision appears to be a powerful influence on followers, regardless of which style the vision is being articulated by, followers may view the vision being espoused as a form of fantasy. Sveningsson and Larson (2006) conducted a qualitative study of middle managers working through a corporate change program. While fantasy has been defined in many ways (e.g. Brakel, 2001; Gabriel, 1997), they define fantasy as beliefs that are disconnected from, and unaffected by, reality. Given the fact that leaders visions refer to an unknown future (charismatic), attainment of an idealized past (ideological), or successfully addressing a problem at hand (pragmatic), it can be argued that leaders’ visions represent a form of fantasy. In keeping with this proposition, McIntosh, Mulhearn, and Mumford (In review) found that leaders tend to maintain their mental models, and presumably the vision arising from this mental
model, regardless of feedback received from others. Indeed, Sveningsson and Larson (2006) found that leader’s visions could be seen as a fantasy production only loosely connected to the demands of reality – a finding consistent with the observations of other students of leadership (Gabriel, 1997; Kets de Vries, 1999).

We tend to assume that fantasy, including fantasies articulated by leaders through their visions, undermine performance. However, the available evidence indicates that fantasy may, in fact, contribute to performance. For example, Parker and Lepper (1992) found that students preferred fantasy based instructional materials, and apparently learned more from such materials in contrast to more traditional educational techniques – in part because fantasy may motivate task engagement. Adoption of fantasies, moreover, may serve to focus attention on fantasy-consistent events and influence evaluations such that fantasy-consistent outcomes are viewed more favorably (Green & Brock, 2000).

Given these observations, it appears leader’s induction of fantasy through articulation of a vision may, in fact, prove a viable tool for the exercise of influence (Yukl, 2011) if followers adopt the same fantasy. By the same token, it cannot be expected the fantasies emerging from the visions being articulated by charismatic, ideological, and pragmatic leaders will be equivalent. Charismatic leaders envision an emotionally charged future, while pragmatic leaders envision solutions to problems in the present (Mumford, 2006). As a result, followers exposed to the vision of a charismatic leader may adopt a more engaging fantasy than followers exposed to the vision of a pragmatic leader. Additionally, as a result of follower investment in the fantasy articulated by charismatic leaders, one would expect to see stronger
identification and greater trust in charismatic leaders. These observations lead to our first two hypotheses:

**Hypothesis 1:** Visions, and associated fantasies, induced by charismatic leader will have a stronger impact on follower performance than visions induced by pragmatic leaders.

**Hypothesis 2:** Visions, and associated fantasies, induced by charismatic leaders will have a stronger impact on identification and trust for the leader than visions induced by pragmatic leaders.

In this regard, however, another issue must be considered. More specifically, fantasy can be positive or negative in content. Put differently, a fantasy may refer to a positive, idealized future or it may refer to a negative, disastrous future. In one study examining the impact of fantasy content on performance, Kappes and Oettingen (2011) induced positive fantasy by asking participants to imagine that everything they did in next week would go exceedingly well and to write down their positive thoughts and daydreams, in contrast to a different condition where they were simply asked to write down their thoughts and daydreams about the coming week. Work accomplishments, as well as energizations (i.e. energy level of the person), were measured as the dependent variables. It was found that positive fantasies led to lower energization and less work accomplishments, suggesting that positive fantasies reduce motivation and performance.

Some support for this conclusion can be found in another study by Oettingen and Mayor (2002). They contrasted positive expectations (i.e. judging a desired future
as likely or attainable) with positive fantasies (i.e. experiencing positive thoughts and images about a desired future) by asking participants to describe future expectations or imagine an idealized outcome. Performance in job search and performance on undergraduate examinations were assessed. It was found that positive expectations about the future contributed to performance but that positive fantasies, presumably due to poor motivation, led to diminished performance.

Of course leaders, through the visions they articulate, can induce both positive and negative performance expectations, and the findings of Oettingen and Mayor (2002), along with various studies of goal setting (e.g. Locke & Latham, 2002; Locke, Shaw, & Latham, 1981), would lead to the expectation that when the visions articulated by leaders involve positive performance expectations, performance will improve. When the vision being articulated by the leader induces positive fantasies, however, performance is likely to suffer due to reduced motivation. These observations lead to our third and fourth hypotheses:

Hypothesis 3: Positive performance expectations associated with a leader’s vision will result in better follower performance.

Hypothesis 4: Positive fantasies associated with a leader’s vision will result in worse follower performance.

Bearing this in mind, people find positive fantasies enjoyable due to induction of feelings of safety and prediction of desired outcome attainment (Brakel, 2001). This observation is noteworthy because it suggests that leader’s induction of positive
Fantasies may increase identification with and liking for the leader even as performance suffers. Accordingly, a fifth hypothesis seemed warranted:

*Hypothesis 5:* Leaders induction of positive fantasies in followers as a result of vision articulation will result in stronger identification with and greater trust in the leader.

**Fantasy Proneness**

Although leader’s visions may induce fantasy in followers, it should also be recognized that followers differ from each other in their willingness to accept fantasies. In other words, the impact of fantasies induced through leaders’ articulation of a vision should be expected to interact with the fantasy proneness of the individual follower. Fantasy prone individuals are held to have a deep, profound, long-standing involvement with fantasy and imagination (Lynn & Rhue, 1988). Merckelbach, Horselenberg and Muris (2001) developed a measure of fantasy proneness using 25 self-report personality items (e.g. my fantasies are like a good movie). They found that not only did this scale yield adequate reliability, but that fantasy proneness was normally distributed, indicating that there are individuals who demonstrate high as well as low fantasy proneness. More centrally, they found that fantasy proneness was positively related to paranormal experiences and memory exclusions.

Somewhat more compelling evidence for the validity in measures of fantasy proneness has been provided in a study by Bacon, Walsh, and Martin (2013). They administered the Merckelbach, Horselenberg, and Muris (2001) measure of fantasy proneness along with a measure of counterfactual thinking. They found that fantasy
proneness was positively related to the production of counter factual thought. The production of counter factual thought has long been considered critical to divergent thinking and production of creative problem-solutions (Merrifield, Guilford, Christensen, & Frick, 1962). Thus, fantasy proneness and leader induction of fantasy may contribute to performance when the task at hand stresses creative problem-solving. Similarly, leader’s articulation of a vision, and the fantasies induced, may not always act to undermine performance. At least when original problem-solutions are called for, fantasy proneness and fantasy induced by a leader’s vision may contribute to follower performance. This leads to our final two hypotheses:

Hypothesis 6: Fantasy prone individuals will produce more creative, or original, problem-solutions than less fantasy prone individuals.

Hypothesis 7: Leaders induction of fantasy through vision articulation will contribute to the creative performance of fantasy prone individuals more than non-fantasy prone individuals.

Method

Sample

The sample used to test these hypotheses consists of 262 undergraduates recruited from a large southwestern University. The 68 men and 193 women (one no response) who agreed to participate in this study received extra-credit for participation in a research study. Students interested in obtaining extra-credit were asked to visit the University research pool website where all available studies were described. They then
selected the study, or studies, in which they wished to participate. The average age of the undergraduates who agreed to participate in the present study was 18.76. On average participants had 2.11 years work experience. Their academic ability, as measured by scores on the ACT, lay roughly a quarter of a standard deviation above freshman entering research universities.

General Procedures

Participants were recruited to take part in what was described as a study of managerial problem-solving. During the first half hour of this study participants were asked to complete a set of timed covariate measures. Subsequently, participants were asked to assume the role of a consultant helping a secondary school principle establish a new educational curriculum. Over the next hour and a half, participants were asked to provide written responses to a series of prompts, one being an email from the principle (i.e. the leader). During the last half hour of the study participants were asked to complete a series of untimed covariate measures, along with a measure of individual differences in fantasy proneness.

The present study was based on a low fidelity simulation exercise (Motowidlo, Dunnette, & Carter, 1990) which focused on secondary education and was based on earlier work by Strange & Mumford (2005). This simulation was selected for use in the present investigation based on undergraduate student’s familiarity with issues bearing on secondary education.

Within the simulation, participants were asked to assume the role of a consultant working for the state to help ensure the success of a new experimental secondary school. They were told that they had been put “in contact” with the principle of the
experimental secondary school. After reading through a description of this school and the states objectives for the school, they received an email from the school principle which presented either a charismatic or pragmatic vision for the school. After reading through the relevant vision statement, they were asked to provide a written description of either the positive or negative implications of the principles vision. Next, they were either presented with another prompt in which they were asked to envision, or fantasize about, their work on the curriculum five years downstream given it proved successful, or they were not given the prompt at all.

After working through the prompts participants were asked to provide a written curriculum plan for the experimental secondary school. Judges appraised the quality, originality, and elegance and these curriculum plans. In addition to this performance measure, participants were asked to complete various measures describing their perceptions of the leader: one measure examining trust in the leader (i.e. the principle), one measuring the quality of their relationship with the leader, and one measure examining identification with that leader. Thus, the key dependent variables examined included leader trust, leader liking, and leader identification, along with performance in formulating curriculum plans as assessed by judges on quality, originality, and elegance.

Covariates

The timed covariate controls participants were asked to complete included a measure of intelligence and a measure of divergent thinking. The intelligence measure administered was drawn from the employee aptitude survey (Ruch & Ruch, 1980). This measure of intelligence includes 30 items where participants are presented with a set of
facts and asked to indicate whether a presented conclusion is true, false, or uncertain given these facts. This measure yields test-retest reliabilities around .80. Evidence for the construct validity of this measure has been provided by Marcy & Mumford (2010) and Ruch and Ruch (1980).

Divergent thinking is commonly held to influence performance on tasks calling for creative problem-solving, such as production of school curricula. To measure divergent thinking ability participants were asked to complete Guilford’s (1950) consequences measure. This measure of divergent thinking was administered based on the need for participants to anticipate downstream consequences of actions or events. On the consequences measure participants are presented with five questions, such as what if gravity was cut in half, and given two minutes to complete each. Participants are asked to list as many consequences of this event as they can think of in the allotted time. When scored for fluency (e.g. the number of consequences generated) this measure yields internal consistency coefficients in the .80’s. Vincent, Decker, and Mumford (2002) have provided evidence for the validity of this measure.

On complex problems, Vincent, Decker, and Mumford (2002) found that in addition to intelligence and divergent thinking, performance in solving complex problems was also influenced by expertise. To measure expertise with regard to education, a background data measure was employed (Mumford, Barrett, & Hester, 2012). This measure was drawn from Scott, Lonergan, and Mumford (2005) and asked participants to report on a five-point scale the time spent thinking about educational issues. Example questions include, “How much time have you spent thinking about how to make schools better?” and “Have you thought about going into education as a
career?” This background data scale yields internal consistency coefficients above .70. Evidence for the validity of this scale has been provided by Scott, Lonergan, and Mumford (2005) and Shipman, Byrne, and Mumford (2010).

Because the performance task required planning, participants were also asked to complete a measure of planning skills. The measure of planning skills employed was drawn from Marta, Leritz, and Mumford (2005) and presents a set of business management scenarios where planning is required. Initially, a brief one-paragraph description of the business scenario is presented with five or six questions bearing on plan formation and execution. Each question is followed by 8 to 12 potential response options where respondents are asked to select their preferred three or four responses. Responses are scored for planning skills such as identifying critical causes or identifying downstream consequences. This measure of planning skills yields split-half reliability coefficients in the .80’s. Marta, Leritz, and Mumford (2005) have provided evidence for the validity of these scales as measures of planning skills.

As noted earlier, participants were asked to complete Bedell-Avers, Hunter, and Mumford’s (2008) measure of charismatic, ideological, and pragmatic leadership styles. On this measure, participants are presented with three one-paragraph abstracts drawn from unfamiliar speeches by a charismatic, ideological, and pragmatic leaders. People are asked to indicate which speech they feel most similar to. Twelve such items are presented with split-half reliabilities obtained for the charismatic, ideological, and pragmatic scales lying between .70 and .85. Evidence for the validity of these scales as a measure of personal leadership style has been provided by Bedell-Avers, Hunter, and Mumford (2008).
In addition to these cognitive and stylistic measures, motivation for working on cognitively demanding tasks was assessed. To assess motivation, participants were asked to complete Cacioppo and Petty’s (1982) need for cognition scale. This behavioral self-report measure presents 18 statements such as, “I prefer complex to simple problems” and “I enjoy working on a task that involves coming up with new solutions to problems”. People are asked to rate, on a five-point scale, the extent to which they agree with these statements. This scale yields internal consistency coefficients above .80. Cacioppo and Petty (1982) have provided evidence for the validity of this scale.

Alongside need for cognition, participants were also asked to complete an omnibus measure of personality. More specifically, participants were asked to complete Gill and Hodgkinson’s (2007) measure of neuroticism, extraversion, openness, conscientiousness, and agreeableness. This measure presents 100 adjectives such as agreeable, original, and tolerant, where people are asked to indicate in a nine-point scale how accurate these adjectives are in describing their typical behavior. The resulting scales for measuring neuroticism, extraversion, openness, conscientiousness, and agreeableness yield internal consistency coefficients above 0.80. Gill and Hodgkinson (2007) have provided evidence for the validity of these scales as a measure of the relevant personality characteristics.

Fantasy Proneness

Beyond these covariate control measures, participants were also asked complete a measure of fantasy proneness. This measure was administered under the hypotheses that those prone to fantasy would be more sensitive to induction of fantasy as a result of
leader’s vision statements and/or a request to fantasize about positive future outcomes.

The fantasy proneness measure administered to participants was the Creative Experiences Questionnaire (CEQ), developed by Merckelbach, Horselenberg, and Muris (2001).

The creative experiences questionnaire presented 25 yes-or-no items bearing on fantasy proneness within individuals. For example, items include, “Many of my fantasies have a realistic intensity,” “Many of my fantasies are often just as lively as a good movie,” and “When I recall my early childhood, I have very vivid and lively memories”. Items included in this inventory had been written to reflect intense involvement in fantasy or daydreaming, and its influence on potential developmental antecedents of fantasy proneness. This scale has been found to yield internal consistency coefficients above .70. Merckelbach, Horselenberg, and Muris (2001) have provided some evidence for the validity of the scale as a measure of fantasy proneness, as has similar work done by Bacon, Walsh, and Martin (2013).

In the present study, the median and standard deviation of scores on Merckelbach, Horselenberg, and Muris’s (2001) fantasy proneness scale were obtained. Participant scores on this scale were compared to the median fantasy proneness score obtained in the sample at hand. Those who received scores above the median were assigned to the high fantasy proneness group, and those who received scores at or below this median were assigned to the low fantasy proneness group.

Experimental Task

The experimental task that both fantasy prone and non-fantasy prone individuals were asked to work on was a variation of the educational leadership task developed by
Strange and Mumford (2005), a task employed in a number of studies of visionary leadership (e.g. Partlow, Medeiros, & Mumford, 2015; Shipman, Byrne, & Mumford, 2010). In the present study, participants were presented with a set of general instructions. These general instructions stated, “You are going to take on the role of a consultant working for the state's experimental secondary school in Tulsa, Oklahoma called ‘Oklahoma Excel’. We need you, as the consultant, to undertake the challenge of improving student’s academic success by creating a new school curriculum. Through email, you have been put into contact with the school’s principle who has laid out their vision for the school’s future.” This task framing was used to induce in participants an active follower role vis-à-vis the leader (i.e. the school principle).

After reading through the introductory materials, participants were presented with a description of the Oklahoma Excel school. This two-part description noted that the school had been funded under a federal grant from the Department of Education. Each state had been awarded funding for one experimental school, with the goal of the program being to develop and implement new types of educational programs that would improve student academic performance. Three years later the school’s performance would be assessed with respect to other schools in the federal program and other schools in the state.

Assessment of the experimental school would be based on a battery of academic achievement tests. These tests would assess initial skill, reading comprehension, mathematical skill, analytic skills, science, social studies, geography, and foreign languages. The responsible federal agency would compare experimental schools with respect to their performance on these academic achievement tests. The most successful
schools would receive additional federal funding and would be asked to disseminate their curriculum.

The state was described as being ranked 47th on academic achievement with school funding being ranked 49th. Given these poor rankings, we have an investment in the success of the experimental school. The experimental school was described as having four hundred students between grades 9 and 12. Students came from a range of demographic backgrounds (e.g. Caucasian, native American, African, Hispanic, other). The school included a number of students from special education backgrounds, both gifted and disabled. The student faculty ratio was 20 to 1 with teachers receiving above average salary to help ensure high quality instruction. After reading through the materials, participants were presented with the experimental manipulations.

*Leader Vision*

After reading through the background material, participants were presented with an email in which the leader (i.e. the school principle) described their vision for the school. Half the participants received an email reflecting a charismatic leadership vision, and half the participants received an email reflecting a pragmatic vision. Figure one presents the charismatic and pragmatic vision statements.

The charismatic vision statement was developed based on past work by Antonakis, Fenley, and Liechti (2011), Antonakis, d’Adda, Weber, and Zehnder (2014), Mumford (2006), and Shamir, House, and Arthur (1993). This vision statement stressed positive, future, success based on the input of talented followers with multiple goals being achieved through the efforts of these individuals. The pragmatic vision statement was based on prior work by Bedell-Avers, Hunter, and Mumford (2008), Mumford
To: consultant@gmail.com
From: principal@okexcel.edu
Subject: My vision

Dear Consultant,

At a recent meeting our board determined that student performance in Oklahoma is mediocre by national standards and must be improved. It is essential, however, that past errors and mistakes are forgotten and that your focus is placed on solving the educational problems at hand. To begin to solve this problem, it is critical that you draw on your previous experiences, both good and bad, to help guide the improvement of student performance. The board believes that by using talented individuals around you and by placing them in situations where they can succeed, you will be able to solve these research concerns. It is important to keep in mind, however, that solving this problem must not get in the way of other school issues – we expect you to make decisions necessary to handle these additional problems if they arise.

Cordially,

Principal, Oklahoma Excel

To: consultant@gmail.com
From: principal@okexcel.edu
Subject: My vision

Dear Consultant,

There is an exciting opportunity to make very substantial, important, and necessary improvements to our school. Specifically, it appears that we must make drastic changes to increase and improve our student’s academic performance. The board has unwavering faith in your ability and believes that by drawing on your extensive list of past successes, you will be able to form a wildly successful new vision and bring about a future golden-age of education for our school and, eventually, Oklahoma. Moreover, we strongly believe that by making use of the immensely talented individuals around you, you can easily find your way to a wealth of great successes. It is important to keep in mind, however, that realizing your revolutionary new vision for student success must not impede the achievement of our other school goals – we expect your vision to provide the shining example of success that all other Oklahoma schools can look to.

Cordially,

Principal, Oklahoma Excel

Figure 1. Leader pragmatic and charismatic emails
(2006), and Mumford and Van Doorn (2001). This vision statement stressed the need to solve the problem at hand, taking into account both good and bad prior experiences and placing talented individuals in situations where they might succeed. It was noted that other school issues, such as constraints, must be taken into account as well.

**Expectations**

After reading through the leader’s vision statement, participants’ expectations of future outcomes were manipulated. In the positive expectations condition, participants were asked to provide a list of the possible positive implications that could be drawn from the principle’s direction. In the negative expectations condition, participants were asked to provide a list of the possible negative implications that could be drawn from the principle’s direction. It is of note that this manipulation was based on the assumption that indication of active processing of potential positive or negative implications would induce positive or negative expectations for future outcomes.

**Fantasy**

In the fantasy manipulation, half the participants were asked to fantasize about a positive personal future, while no such instructions were given to the remaining half of the participants. In the fantasy induction condition, the prompt presented to participants noted, “Your strategic plan has proven wildly successful! With your help Oklahoma Excel has been able to make giant leaps in terms of student performance and has been ranked as one of the top 5 experimental school nationwide! This school’s success has brought with it a massive increase to your reputation as a consultant. Given the success on both fronts, please take a moment to describe yourself five years from now.” Participants were asked to provide a written description of this fantasy. A qualitative
analysis of the written material provided indicated these instructions did, in fact, invoke positive, future-oriented fantasy.

**Dependent Variables**

**Performance:** After reading through this chain of prompts, participants were asked to prepare a two or three-page written curriculum plan that would help the school achieve academic excellence. It was noted that plans should include multiple elements such as teaching strategies, process improvement ideas, and special programs. Participants were encouraged to be specific in writing their plans.

Written curriculum plans were evaluated by three judges for quality, originality, and elegance. All judges were doctoral students in Industrial and Organizational Psychology familiar with the educational literature. It is of note, prior work by Strange and Mumford (2005) employing this task has shown that doctoral students appraisals of quality, originality, and elegance in curriculum plans show good convergence with the appraisals of students, parents, and teachers.

Quality was defined as a logical, potentially workable solutions, originality was defined as unexpected, surprising, solutions, and elegance was defined as a solution where solution elements flowed together in a coherent, seamless, fashion. Using these definitions, a panel of three judges, undergraduate students in an Industrial and Organizational Psychology laboratory, rated a sample of 24 curriculum plans on a five-point scale. The mean and standard deviation of judge’s ratings were used to select plans which judges agreed reflected high, medium, or low benchmarks for rating the quality, originality, and elegance of curriculum plans. It is noted, these benchmark ratings scales were based on the earlier observations of Redmond, Mumford, and Teach
(1993) indicating that use of example products (i.e. scale benchmarks) contributes to the reliability and validity of judgmental appraisals.

Prior to appraising curriculum plans, all judges were asked to complete a four-hour training program. In this training program, judges were initially familiarized with the task participants were to perform and the expected products. Subsequently, judges were presented with the definitions of quality, original, and elegant solutions along with the benchmark rating scales to be used in appraising the quality, originality, and elegance of the curriculum plans. Consequently, judges were then asked to appraise a sample of 40 curriculum plans using these ratings scales. Judges then met as a panel to discuss and resolve any discrepancies. Following training, the inter-rater judge agreement coefficients obtained for quality, originality, and elegance evaluated were .83, .80, and .87, respectively.

Judges average ratings provided the scaled used to appraise quality, originality, and elegance on this complex problem-solving task, keeping with the findings emerging from earlier research (Besemer & O’Quin, 1999; Christiaans, 2002; Strange & Mumford, 2005). When scores on these scales were correlated with each other, as well as various covariate measures, some evidence was obtained for the validity of these appraisals. Quality and originality ratings were strongly positively correlated with each other (r = 0.55), but were less strongly related to elegance (r = 0.45). Moreover, evaluations of quality, originality, and elegance of curriculum plans were found to be possibly related to openness (r̅ = 0.17), expertise (r̅ = 0.17), and planning skill (r̅ = 0.13).
**Leader Reactions:** Evaluations of quality, originality, and elegance of follower performance were measured. These measures, however, do not speak to how followers appraised, or reacted to, the leader. Accordingly, after completion of the curriculum development task, and prior to completing the untimed covariates, participants reactions to the leader (i.e. the principle) were assessed with respect to their trust in the leader and their identification with the leader.

Leader trust was measured using Podsakoff, MacKenzie, Moorman, and Fetter’s (1990) measure of follower trust in a leader. On this measure, participants are presented with six behavioral statements reflecting trust in a leader such as, “I feel quite confident the leader will treat me fairly,” and “I have complete faith in the integrity of the leader.” People are asked to rate on a five-point scale the extent to which they agree with these statements. This scale yields internal consistency coefficients above .80. Podsakoff, MacKenzie, Moorman, and Fetter (1990) have provided evidence for the validity of the scale as a measure of followers’ trust in leaders.

The measure of personal identification with the leader was drawn from earlier work by Mael and Ashforth (1992). This nine-item scale presents a series of behavioral statements such as, “When someone criticizes the leader, it feels like a personal attack,” and “My values are similar to the leader’s values.” People are asked to rate on a five-point scale the extent to which they agree with these statements. This scale yields internal consistency coefficients above .80. Mael and Ashforth (1992) and Shamir and Kark (2004) have provided evidence for the validity of this scale as a measure of identification with a leader.
Analysis

A series of analysis of covariate (ANCOVA) tests were used to assess the impact of the included covariates on the quality, originality, and elegance of the curriculum plans provided, as well as the trust in and identification with the leader. The key independent variables examined in all analyses were leader type (e.g. charismatic or pragmatic), positive or negative performance expectations, follower fantasy or no fantasy, and follower fantasy proneness (e.g. high or low). A covariate control was retained in any given analysis only if it proved significant at the .05 level.

Results

Performance

Table one presents the effects of the various independent variables and covariates on the quality of the curriculum plans participants (e.g. followers) produced. Three covariate controls proved positively related to the production of high quality plans: intelligence ($F(1,243) = 4.36, p < 0.05$), expertise ($F(1,243) = 4.87, p < 0.05$), and openness ($F(1,243) = 4.95, p < 0.05$). These relationships, of course, all speak to the validity of the performance task at hand. However, no significant main effects or significant interactions were found for any of the independent variables in accounting for the quality of the curriculum plans produced by followers.

Table two presents the effects of the independent variables and covariates on the originality of the curriculum plans produced by followers. Need for cognition was a significant covariate control ($F(1,243) = 7.83, p < 0.01$) with need for cognition proving positively related to the production of more original curriculum plans. A significant main effect for fantasy proneness ($F(1,243) = 5.71, p < 0.05$) was also
Table 1. Effects of quality on curriculum plans

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Table 3. Effects of elegance on curriculum plans

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obtained. Inspection of the cell means indicated more fantasy prone individuals (M = 2.94, SE = 0.08) as compared to less fantasy prone individuals (M = 2.75, SE = 0.06) were more likely to produce original curriculum plans. Thus, fantasy proneness, at least on novel, ill-defined, complex tasks, may not always inhibit performance.

Table three presents the effects of the independent variables on the elegance of the plans provided by followers. Both planning skill (F (1,243) = 4.77, p < 0.05) and expertise (F (1,243) = 5.67, p < 0.05) proved to be positively related to production of more elegant curriculum plans. A significant main effect for follower expectations (F (1,243) = 4.82, p < 0.05) was also obtained. Those who were asked to consider potential negative outcomes (M = 2.34, SE = 0.07) produced more elegant solutions than those asked to consider potential positive outcomes (M = 2.17, SE = 0.07). Thus, it appears that considering potential obstacles encourages people to refine their problem solutions.

These findings, however, should be considered in light of the marginally significant effect between expectations and fantasy (F (1,243) = 3.01, p < 0.10). Solutions of especially low elegance emerged in anticipating positive outcomes where no fantasy was involved (M = 2.02, SE = 0.10) in comparison to all other conditions (M = 2.36, SE = 0.10). Positive expectations with no fantasy may limit people’s ability to identify downstream obstacles, thereby undermining solution elegance.

A marginally significant interaction also emerged between leader style, expectations, and fantasy proneness (F (1,243) = 3.06, p < 0.10). Inspection of the cell means indicated that especially elegant solutions were produced by fantasy prone followers of charismatic leaders who had positive expectations (M = 2.45, SE = 0.16) and fantasy prone followers of pragmatic leaders who had negative expectations (M =
2.56, SE = 0.14) in comparison to all other conditions (M = 2.20, SE = 0.14). This pattern of findings suggests that inducing expectations consistent with leadership style is especially impactful for fantasy prone followers.

**Leader Reactions**

Table four presents the results obtained when one leader reaction variable, trust in the leader, was the dependent variable of interest. It was found that agreeable people were significantly more trusting of their leader (F (1,243) = 8.15, p < 0.01) than others. Moreover, participants were significantly more likely to trust when they displayed a charismatic style (F (1,243) = 2.35, p < 0.05). A significant main effect for expectations (F (1,243) = 15.56, p < 0.01) was also obtained. It was found people evidenced more trust in the leader if negative expectations (M = 2.83, SE = 0.07) as opposed to positive expectations (M = 2.48, SE = 0.07) were induced. Apparently, people are more likely to trust leaders when risk or potential negative outcomes are perceived.

The results obtained when leader identification was treated as the dependent variables are presented in Table five. Unsurprisingly, agreeable followers (F (1,243) = 4.18, p < 0.05) and conscientious followers (F (1,243) = 8.96, p < 0.01) were more likely than others to identify with the leader. A significant three-way interaction also emerged between leadership style, expectations, and fantasy induction (F (1,243) = 4.53, p < 0.05). It was found that followers led by a charismatic leader with positive expectations but no fantasy (M = 2.87, SE = 0.12) and led by a charismatic leader with negative expectations and fantasy was induced (M = 2.92, SE = 0.12) resulted in weaker identification with the leader than all other conditions (M = 3.12, SE = 0.12). This pattern of findings suggests that with respect to identification, charismatic leadership,
Table 4. Effects on leader trust

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### Table 5. Effects on leader identification

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unlike pragmatic leadership, hedges more on expectations and fantasy such that when both don’t positively occur in tandem, the effects on identification are offset.

A marginally significant relationship was obtained between leadership style and fantasy proneness in accounting for identification with the leader (F (1,243) = 2.75, p < 0.10). Charismatic leadership coupled with fantasy proneness resulted in lower leader identification (M = 2.90, SE = 0.10) in comparison to all other conditions (M = 3.12, SE = 0.08). Apparently, fantasy prone people are less likely to identify with charismatic leaders as it may prevent them from pursuing their own image of the future.

In this regard, however, the marginally significant interaction between leadership style, fantasy proneness, and fantasy (F (1,243) = 2.82, p < 0.10) should be borne in mind. Inspection of the cell means indicated that fantasy prone followers led by pragmatic leaders where no fantasy was induced (M = 3.32, SE = 0.14) were more likely to identify with the leader than all other conditions (M = 3.03, SE = 0.12). Thus, fantasy prone people may identify with pragmatic leaders if no fantasy is involved, perhaps because they become focused on the task at hand thereby resulting in stronger leader identification. Although this conclusion might be contingent on the marginally significant four-way interaction between leadership style, expectations, fantasy, and fantasy proneness (F (1,243) = 3.19, p < 0.10), it was found that the strongest leader identification emerged for fantasy prone followers of pragmatic leaders when positive expectations but no fantasy was induced (M = 3.47, SE = 0.21) relative to all other conditions (M = 3.09, SE = 0.18). In contrast, fantasy prone followers led by charismatic leaders identified less strongly with the leader when positive expectations were induced with no fantasy (M = 2.59, SE = 0.18) relative to all other conditions (M =
3.04, SE = 0.18). Thus, charismatic leaders may induce less identification by articulating positive expectations but no fantasy among fantasy prone individuals.

Discussion

Before turning to the broader conclusions flowing from the present study, certain limitations should be noted. To begin, only one leadership task, the leadership of an educational secondary school, was employed in the current study. Although this task has been successfully used in multiple earlier studies of leadership (e.g. Partlow, Medeiros, and Mumford, 2015; Strange & Mumford, 2005), it is of course only one task. Thus, the question remains as to whether the findings obtained in the present study will generalize to other leadership tasks drawn from other performance domains.

Along related lines, it should also be recognized that the present study was based on a low fidelity simulation. To maintain the realism of the participants actions, all manipulations made in this study were necessarily presented in a fixed order. Although fixing the order of manipulations maintained control while ensuring realism, the current study cannot speak to the effects that might have arisen if manipulations had been presented in a different order. For example, different effects might have been obtained if fantasy had been induced prior to presenting the email which described the leader’s vision.

It should also be recognized that the present study was based on a classic experimental design. One limitation here, of course, is undergraduates may not respond to positive or negative expectations in the same way as more experienced people. Similarly, fantasy induction may have different impacts in a real-world setting as opposed to an experimental setting. Although it is important to recognize this limitation,
it should be noted that the current study was based on a leadership task appropriate for an undergraduate population.

Finally, it should be acknowledged that the measure of fantasy proneness employed in the present study was based on a quasi-clinical view of fantasy proneness (Merkelbach, Horvath, & Muris, 2001). Although prior studies have indicated fantasy proneness is normally distributed and the measure evidences adequate validity (Bacon, Walsh, & Martin, 2013), the question remains as to whether a measure explicitly intended to assess fantasy proneness without reference to clinical concerns would have yielded similar results.

Even bearing these limitations in mind, we do believe the present study leads to some noteworthy conclusions. To begin, fantasy proneness and induction of fantasy among followers has been held to represent a key mechanism by which charismatic leaders exercise influence and shape follower performance (Sveningsson & Larson, 2006). This observation led to all the various hypotheses proposed earlier. Broadly speaking, at least with regard to follower performance, the current study provided no support for these hypotheses.

Both fantasy proneness and fantasy induction had little effect on the quality and originality of follower performance. The only exception here was the finding that fantasy prone individuals are more likely to produce original curriculum plans. Of course, fantasy may result in people considering an array of options. As a result, fantasy proneness may encourage people to generate a larger, wider, array of ideas, encouraging the divergent thinking commonly found to contribute to creative problem-solving and production of original problem-solutions (Guilford, 1950).
The same basic pattern of findings with regard to fantasy proneness and fantasy induction also held for solution elegance. Here, however, it was found that expecting negative outcomes, especially when no fantasy was involved, resulted in the production of the most elegant curriculum plans. Of course, a realistic appraisal of potential obstacles allows people to refine their plans (Mumford, Schultz, & Van Doorn, 2001). As a result, it is not at all surprising that this realism would result in the production of more elegant plans. By the same token this finding does not suggest that elegant follower performance is in any way more influenced by fantasy relative to follower quality and originality.

Put somewhat differently, fantasy just does not seem to have much to do with follower performance. With that said, it may be more related to how followers perceive their leader. The only effects obtained for trust involved people trusting leaders more when they had negative expectations. However, the finding may reflect little more than validation of an old proposition that followers rely more on leaders when they feel at risk or perceive potential negative outcomes (Yukl, 2011).

By the same token, fantasy appeared more significant with respect to follower identification with the leader. Again, however, our findings contradicted initial hypotheses. We found that given charismatic leadership, no fantasy led to stronger leader identification, while given pragmatic leadership, fantasy induction proved beneficial. Although interpretation of these effects is speculative, they suggest that fantasy among followers may operate in a compensatory fashion. Thus, fantasy induction encourages identification with a pragmatic leader – leaders who do not induce fantasy. In contrast, greater objectivity seems to encourage identification with
charismatic leaders. In fact, the interactions observed with fantasy proneness and expectations seem to underscore this point.

The idea that follower fantasy, either fantasy proneness or fantasy induction, influences identification with a leader suggests identity may be based on follower’s ability to impose their fantasies on leaders. However, the imposition of fantasy appears to act as a compensation for deficiencies in the leader, not something of value to the follower per se.

These observations are noteworthy because they suggest fantasy is a tool of followers, not the leader. Indeed, fantasy had little impact on follower performance or follower trust. Rather, it’s significance seemed to lie in the management of interpersonal relationships – including follower’s relationship with the leader. We hope the present study provides an impetus for future research along these lines.
References


McIntosh, T., Mulhearn, T., & Mumford, M. D. (in preparation). Leaders’ use of alternative mental models: Deliberate but don’t implement.


