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A Closer Look at the Assistant (to the) Regional Manager: Personality Differences Between First and Second in Command Leaders in Organizations

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Abstract
Although a great deal of research has established personality differences between leaders and their followers (Lord, de Vader, & Alliger, 1986) there has been little research on how leaders at different levels of organizations may differ from one another. In particular, no research to date has examined whether or not there are personality differences between those who are first in command of their organizations and those second in command. The present study attempts to explore whether or not these differences exist in terms of both lay perceptions and in reality. The researchers in this study asked 401 individuals to contrast the personalities of first- and second-in-command leaders in general. Results generally showed that lay individuals believed that first-in-command leaders were extraverted and open to new experiences while second-in-command leaders were more neurotic. Next, the researches verified whether or not these stereotypes were true by having 1,262 individuals rate their actual first- or second-in-command leaders. First-in-command leaders were rated as being higher on conscientiousness. Second-in-command leaders were rated as being higher on neuroticism. Although there were fewer significant differences between the two levels of leadership, the pattern of differences between these leadership roles was consistent with lay stereotypes for these roles. Though the differences were not substantial, there was a great deal of accuracy in perceiving the traits that were different.

There is a long tradition of research investigating the relationship between personality and leadership (Zaccaro, 2007). Trait approaches, a perspective of psychology that uses personality traits as the primary explanation for human behavior, have been popular for decades for studying leadership. The vast majority of research linking personality to leadership has focused on leadership emergence and effectiveness as the outcomes of interest. That is, the goal is to determine how leaders differ from followers or what characteristics are associated with success in a particular leadership role (Kirkpatrick & Locke, 1991).

For example, lay people[1] implicitly believe that individuals in leadership positions possess a number of desirable traits such as intelligence, masculinity-femininity, and dominance (Lord, de Vader, & Alliger, 1986). Further research has revealed that effective leaders tend to be higher in extraversion and openness to experience but lower in neuroticism (Judge, Bono, Ilies, & Gerhardt, 2002). More recently, researchers have begun to investigate whether or not personality differences exist between leaders at different levels in the organizational hierarchy (Lemming, Johnson, & Foster, 2009; Ones & Dilchert, 2009; Moutafi, Furnham, & Crump, 2007).

However, to date no researchers have investigated differences in personality between those who are first in command of an organization and those who are second in command. To address this need, part one of this study examines what traits lay people perceive to be most prototypical of those who are first in command and those who are second in command. Part two of this study examines how full-time employees view the personalities of those who are first in command, those who are second in command, and coworkers at their own organizations.

Personality and Performance

There is much research linking personality traits and managerial performance (Ones, Dilchert, Viswesvaran, & Judge, 2007; Hoffman & Jones, 2005; Chatman, Caldwell, & O'Reilly, 1999). Of the traits that make up the five-factor model,[2] Judge and colleagues (2002) found that extraversion positively correlated most consistently with leader emergence and leadership effectiveness. There was also a strong positive relationship between leadership and dominance, sociability, and achievement. The authors also argued that conscientiousness, openness, and neuroticism are also useful traits for examining leadership criteria.

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1. Individuals in the general population who do not hold leadership positions.

2. The five-factor model, also known as the "big five" is a popular measure of personality which uses five traits to describe human behavior (John & Srivastava, 1999). The traits are openness to experience, conscientiousness, agreeableness, extraversion, and neuroticism.

One possible reason that extraversion had the strongest correlation with leadership criteria is that extraverts talk more than introverts, and talking is associated with emergent leadership (Bass, 1990). Another reason is that individuals may implicitly expect their leaders to be extraverted. These implicit leadership expectations may be based on subjective individual perception rather than objective performance output (Casimir & Waldman, 2007; Engle & Lord, 1997; Lord et al., 1986).

Leadership Levels and Personality

Research findings that indicate personality is related to leader performance suggest that there should also be personality differences between individuals at different levels of leadership. There are two reasons to expect that this will be true. First, individuals who perform at higher levels are more likely to be promoted. Therefore, over time individuals with personality profiles that better match "leader prototypes" should ascend to higher levels of leadership in organizations (Ones & Dilchert, 2009). Another potential reason why differences could exist between leadership levels is the corresponsive effect. The corresponsive effect is a widely replicated finding in developmental psychology whereby the traits that enable an individual to be successful in an environment will be the traits that develop further in that environment (Roberts, Caspi, & Moffitt, 2001). That is, if a characteristic is required or demanded within a context, individuals will further develop that trait. Consequently, one would expect that individuals who are successful enough to be promoted would become more "prototypical" of leadership as they ascend the ranks of the organization.

Though research has linked personality with managerial performance (Judge et al., 2002), few studies discriminate between different types of managerial positions (Lemming et al., 2009; Ones & Dilchert, 2009; Moutafi et al., 2007). Lemming and colleagues (2009) investigated different types of managers and found a common personality profile of high adjustment, high ambition, and high prudence predicted job performance. The authors noted although there is a general manager profile that can predict job performance for supervisors, mid-level managers, and executives, individualized profiles for different levels of management can be created. For example, the authors suggested that supervisor profiles should emphasize prudence, while mid-level manager and executive profiles should emphasize adjustment and ambition. In fact, the authors argue that separate profiles for each managerial level might even be preferred, depending on organizational needs.

Ones and Dilchert (2009) found that managers at all levels scored above general population norms on emotional stability, extraversion, and

agreeableness, and below general population norms on conscientiousness and openness. However, executives scored higher than lower level managers on nearly every trait, including emotional stability, extraversion, agreeableness, conscientiousness, and openness. This may be due to the increased leadership activities and important decisions required of executive positions.

Though a few studies have investigated managers at different hierarchal levels, no study has distinguished personality differences between those first in command and those second in command. Considering that second-in-command managers often have strong leadership roles, which can influence organizational success, it is imperative to examine these types of managers. It is also important to examine employees' perceived personality traits at different managerial levels, because employee perception can affect managerial success (Lord et al., 1986).

Implicit Leadership Theory[3]

Fitting into perceived job requirements might be important in determining managerial success as well. Lord and colleagues (1986) found that individuals expected traits of intelligence, masculinity-femininity, and dominance to be related to leadership. These traits were thought to characterize leaders in many different situations. Hence, from the perceiver's point of view, analyzing the traits of others could affect the perceived leadership qualities of others (Hogan, Curphy, & Hogan, 1994; Engle & Lord, 1997).

It's important for leaders to match their subordinates' perceptions of what makes a good a leader. Hollander and Julian (1969) found that individuals would allow others to lead them when the leaders matched the followers' perceptions of what a good leader should be. Research on these implicit leadership theories shows that perceivers' expectations of leadership traits are important in predicting leadership perceptions and leadership emergence (Lord et al., 1986).

For managers at all levels it is important to be perceived as leaders, because being perceived as a leader gives one opportunity to command great influence (Lord et al., 1986). Both executives and lower level managers often require influence over their subordinates if they are to be productive in their jobs. To garner more influence, managers at all levels must match their subordinates' perceptions of what makes a good leader. Since it is important for all managers to fit subordinates' perceptions of leadership, one can expect to find similar traits among managers because

3. Implicit Leadership Theories are assumptions that individuals have of what makes a leader "good" or effective (Lord et al., 1986).

managers will adapt to the traits that their subordinates see as valuable. From this, a managerial prototype develops because managers typically adhere to a common profile set by subordinate expectations.

Hypotheses

Based on prior research where executives scored higher than lower level managers on emotional stability, extraversion, conscientiousness, openness, and agreeableness (Ones & Dilchert, 2009), we expect that those first in command will be perceived as being higher than those second in command on extraversion, conscientiousness, openness, and agreeableness. We also expect that those first in command will be perceived as being lower on neuroticism than those second in command. Further, we expect that these stereotypes will be broadly supported by actual ratings of those first and second in command by their subordinates.

Since managers at each hierarchal level scored above general population norms on extraversion, emotional stability, and agreeableness (Ones & Dilchert, 2009), and conscientiousness and openness were positively related to leader emergence (Judge et al., 2002), we expect both those first in command and those second in command to be rated higher than coworkers on extraversion, agreeableness, conscientiousness, and openness. We also expect both those first in command and those second in command to be rated lower than coworkers on neuroticism.

Method (*Study 1*)

Participants

Participants in this study were paid to complete surveys online through Amazon Mechanical Turk. The only inclusion criterion for participants was that they were currently employed adults. Participants were paid one dollar for completing the study. Of the 401 participants who completed this first study, 153 were male. Average age of participants was 33.77 years old (SD=10.99). Participants were typically employed at their organization for four to six years, most often holding their current job position for six to nine years.

Measures

Individual Differences in the Lexicon (IIDL). The IIDL is based on an 83 dimension taxonomy of personality derived from cluster analysis of 302 trait adjectives (Wood, Nye, & Saucier, 2010). Each dimension is assessed using a single item with a pair of traits (e.g. excited, enthusiastic, expressive, eager). Participants were asked to rate their perceptions of how these traits describe the number one and number two persons of organi-

zations. The traits were rated on a scale from "much more characteristic of a second-in-command" to "much more characteristic of a first-in-command leader." This was coded on a -3 to 3 scale with a score of 0 being "equally descriptive of both." Negatives scores were indicative of traits being associated with those second in command. Positive scores were indicative of traits being associated with those first in command.

California Q-Sort. The California Q-Sort is a measure of a wide variety of personality characteristics. It consists of a 100-item set of statements used to characterize individuals' personalities (Block, 1924). Although the Q-sort items were originally designed to be ranked in an ipsative manner, they were modified in the current study to have rating scales for each item. Participants rated statements on a scale from "much more characteristic of a second-in-command leader" to "much more characteristic of a first-in-command leader." This was coded on a -3 to 3 scale with a score of 0 being "equally descriptive of both." Negatives scores were indicative of traits being associated with those second in command. Positive scores were indicative of traits being associated with those first in command.

Procedure

Participants rated items from both the IIDL and the Q-sort contrasting the roles of those first in command and those second in command in organizations. The order of completion was randomized both for which questionnaire was administered first and for the order in which questions were presented within a questionnaire. The instructions were as follows:

> *1 vs 2 Instructions*
>
> *In the following two sections we would like you to rate whether the following characteristics are more typical/representative of individuals who are ultimately responsible for leading organizations/departments or their second-in-command (official or unofficial). In other words, is there a difference on that quality for the #1 vs. the #2 leader?*
>
> *Note: We are not asking about your own organization. We would like you to rate using your opinion about what individuals in these roles are like in general.*

On both the IIDL and Q-Sort, 401 individuals rated traits as being more characteristic as being more typical of either first- or second-in-command leaders. After filling out the IIDL and Q-Sort, participants then answered three code block questions before answering ten randomly assigned questions from either the Q-Sort or IIDL. Participants were to rate themselves on these ten questions.

Results (*Study 1*)

Statistical t-tests were used on both the IIDL and Q-sort traits in order to determine which traits were most stereotypical of those first in command and those second in command. Using the IIDL, the traits most stereotypical of those first in command were "wealthy, well-to-do" (t = 30.70, $p < 0.001$) and "influential, prominent" (t = 27.73, $p < 0.001$). Results are in Table 1. The traits most stereotypical of those second in command were "bashful, shy" (t = –13.46, $p < 0.001$) and "ordinary, average" (t = –13.58, $p < 0.001$). Results are in Table 2. Traits that were least differentiated between those first and second in command were "radical, rebellious" (t = 0.04, p = 0.97) and "efficient, thorough" (t = 0.82, p = 0.82). Results are in Table 3. Participants rated 45 of the traits as being significantly more associated with first-in-command leaders and 25 traits as being significantly more associated with second-in-command leaders. Twelve traits showed no significant effects for being stereotypical of either type of leader.

Using the Q-sort, the traits most stereotypical of those first in command were "is power oriented; values power in self and others" (t = 19.26, $p < 0.001$) and "behaves in an assertive fashion" (t = 17.66, $p < 0.001$). Results are in Table 4. The traits most stereotypical of those second in command were "genuinely submissive; accepts domination comfortably" (t = –18.47, $p < 0.001$) and "gives up in the face of adversity" (t = –11.11, $p < 0.001$). Results are in Table 5. The traits least differentiated between those first and second in command were "is productive, get things done" (t = –0.19, p = 0.85) and "dissociative tendencies" (t = 0.42, p = 0.68). Results are in Table 6. Participants rated 62 of the traits as being significantly more associated with first-in-command leaders and 19 traits as being significantly more associated with second-in-command leaders. Nineteen traits showed no significant effects for being stereotypical of either type of leader.

In order to assess the potential differences in the personalities of those first and second in command at a higher level, we computed Big Five trait dimensions using the IIDL and Q-sort (Block, 1924; Wood, Nye, & Saucier, 2010). Results are in Tables 7 and 8. Supporting our hypotheses, across both the IIDL and Q-sort extraversion and openness were significantly related to those first in command while neuroticism was significantly related to those second in command.

Contrary to our hypotheses, agreeableness was positively related to those second in command on the IIDL and was unrelated to either those first or second in command on the Q-sort. Also, contrary to our hypotheses, conscientiousness was unrelated to either those first or second in command on the IIDL. However, supporting our hypotheses,

Table 1. IIDL Traits Most Prototypical of First in Command Managers

	Study 1 Lay stereotypes				Study 2 Actual ratings			
Trait	Mean	SD	*t*	*p*	Mean diff.	Std. error	*t*	*p*
Wealthy, well-to-do	1.69	1.10	30.70	<0.001	1.07	0.22	4.92	<0.001
Influential, prominent	1.65	1.19	27.73	<0.001	0.53	0.20	2.62	0.009
Assertive, bold	1.27	1.26	20.11	<0.001	0.47	0.21	2.30	0.022
Confident, self-assured	1.13	1.28	17.63	<0.001	0.08	0.18	0.43	0.667
Lucky, fortunate	0.94	1.20	15.65	<0.001	0.55	0.19	2.85	0.005
Dominant, controlling	1.12	1.47	15.24	<0.001	0.58	0.25	2.32	0.021
Egotistical, conceited	0.89	1.40	12.79	<0.001	0.14	0.25	0.56	0.573
Direct, straight-forward	0.90	1.41	12.70	<0.001	–0.06	0.19	–0.30	0.761
Strict, firm	0.88	1.46	12.03	<0.001	0.13	0.22	0.60	0.550
Admirable, impressive	0.79	1.37	11.58	<0.001	0.08	0.23	0.33	0.742

Study 1, $N = 401$; Study 2, $N = 407$

Table 2. IIDL Traits Most Prototypical of Second in Command Managers

	Study 1 Lay stereotypes				Study 2 Actual ratings			
Trait	Mean	SD	*t*	*p*	Mean diff.	Std. error	*t*	*p*
Ordinary, average	–0.77	1.13	–13.58	<0.001	0.08	0.20	0.42	0.675
Bashful, shy	–0.76	1.13	–13.46	<0.001	0.06	0.20	0.31	0.760
Afraid, scared	–0.72	1.09	–13.18	<0.001	–0.29	0.18	–1.60	0.110
Youthful, young	–0.84	1.28	–13.09	<0.001	–0.52	0.22	–2.33	0.020
Ashamed, humiliated	–0.60	0.98	–12.12	<0.001	–0.15	0.16	–0.93	0.353
Awkward, clumsy	–0.48	1.10	–8.72	<0.001	–0.37	0.19	–1.92	0.056
Faithful, loyal	–0.63	1.46	–8.65	<0.001	–0.26	0.21	–1.23	0.219
Casual, informal	–0.59	1.40	–8.43	<0.001	–0.12	0.21	–0.56	0.575
Feminine, not masculine	–0.42	1.01	–8.28	<0.001	–0.63	0.28	–2.22	0.027
Thankful, grateful	–0.49	1.32	–7.36	<0.001	–0.26	0.22	–1.18	0.238

Study 1, $N = 401$; Study 2, $N = 408$

Table 3. IIDL Traits Least Differentiation of First in Command or Second in Command Mangers

	Study 1 Lay stereotypes				Study 2 Actual ratings			
Trait	Mean	SD	*t*	*p*	Mean diff.	Std. error	*t*	*p*
Radical, rebellious	0.00	1.34	0.04	0.97	0.24	0.21	1.10	0.273
Efficient, thorough	0.02	1.51	0.23	0.82	–0.16	0.21	–0.74	0.461
Good–for–nothing, insane	–0.03	1.21	–0.46	0.65	0.07	0.19	0.39	0.695
Undependable, unreliable	–0.04	1.21	–0.58	0.56	–0.01	0.21	–0.04	0.970
Jealous, possessive	–0.04	1.30	–0.62	0.54	–0.10	0.21	–0.50	0.617
Happy, joyful	–0.05	1.23	–0.77	0.44	–0.02	0.21	–0.11	0.915
Disorganized, messy	0.05	1.29	0.82	0.42	–0.08	0.23	–0.35	0.727
Likeable, well–liked	–0.08	1.53	–1.08	0.28	–0.19	0.22	–0.84	0.399
Prompt, punctual	–0.09	1.56	–1.19	0.24	0.04	0.23	0.16	0.872
Weird, strange	0.08	1.26	1.27	0.20	–0.28	0.23	–1.21	0.227

Study 1, $N = 401$; Study 2, $N = 410$

Table 4. Q-Sort Traits Most Prototypical of First in Command Managers

	Study 1 Lay stereotypes				Study 2 Actual ratings			
Trait	Mean	SD	*t*	*p*	Mean diff.	Std. error	*t*	*p*
Is power oriented; values power in self and others	1.32	1.37	19.26	<0.001	0.44	0.27	1.62	0.107
Behaves in an assertive fashion	1.19	1.35	17.66	<0.001	0.88	0.24	3.59	<0.001
Has social poise and presence	1.05	1.39	15.03	<0.001	0.21	0.25	0.85	0.399
Feels satisfied with self	0.89	1.24	14.34	<0.001	0.32	0.21	1.50	0.135
Is self–indulgent; tends to "spoil" himself/herself	0.90	1.38	12.97	<0.001	0.17	0.30	0.57	0.570
Has high aspiration level for self	0.91	1.44	12.67	<0.001	0.69	0.23	2.91	0.004
Appears to have a high degree of intellectual capacity	0.70	1.34	10.49	<0.001	0.58	0.25	2.32	0.021
Regards self as physically attractive	0.61	1.25	9.75	<0.001	–0.06	0.25	–0.22	0.823
Appears straightforward, forthright	0.59	1.32	8.88	<0.001	0.16	0.24	0.64	0.525
Has a rapid personal tempo; is fast–paced	0.61	1.42	8.60	<0.001	0.32	0.26	1.19	0.230

Study 1, $N = 401$; Study 2, $N = 422$

Table 5. Q-Sort Traits Most Prototypical of Second in Command Managers

	Study 1 Lay stereotypes				Study 2 Actual ratings			
Trait	Mean	SD	*t*	*p*	Mean diff.	Std. error	*t*	*p*
Genuinely submissive; accepts domination comfortably	–1.13	1.23	–18.47	<0.001	–0.84	0.25	–3.41	<0.001
Gives up in the face of adversity	–0.61	1.10	–11.11	<0.001	–0.70	0.25	–2.81	0.005
Has a readiness to feel guilt	–0.60	1.09	–10.92	<0.001	–0.54	0.25	–2.21	0.027
Feels cheated and victimized by life; self–pitying	–0.64	1.20	–10.61	<0.001	–0.41	0.26	–1.58	0.114
Is generally fearful	–0.57	1.15	–9.82	<0.001	–0.29	0.23	–1.31	0.192
Has doubts about own adequacy as a person	–0.60	1.25	–9.66	<0.001	–0.42	0.25	–1.69	0.091
Is self–defeating	–0.46	1.18	–8.29	<0.001	–0.67	0.25	–2.66	0.008
Seeks reassurance from others	–0.50	1.32	–7.64	<0.001	–0.45	0.27	–1.65	0.631
Is basically anxious	–0.43	1.25	–6.92	<0.001	–0.37	0.27	–1.39	0.164
Reluctant to commit self to any definite course of action	–0.35	1.30	–5.29	<0.001	–0.32	0.28	–1.17	0.241

Study 1, $N = 401$; Study 2, $N = 421$

Table 6. Q-Sort Traits Least Differentiation Between First in Command or Second in Command Managers

	Study 1 Lay stereotypes				Study 2 Actual ratings			
Trait	Mean	SD	*t*	*p*	Mean diff.	Std. error	*t*	*p*
Is productive, gets things done	–0.02	1.56	–0.19	0.85	0.67	0.26	2.57	0.011
Dissociative tendencies	0.03	1.21	0.42	0.68	–0.08	0.25	–0.35	0.728
Initiates humor; makes spontaneous funny remarks	–0.04	1.41	–0.50	0.62	0.02	0.29	0.07	0.943
Is quick to feel imposed upon	0.04	1.43	0.53	0.60	–0.26	0.28	–0.92	0.358
Gives advice; concerns self with other people's business	–0.04	1.43	–0.59	0.55	0.45	0.26	1.73	0.084
Brittle ego defenses	0.04	1.39	0.61	0.54	–0.81	0.29	–2.83	0.109
Tends to ruminate and have preoccupying thoughts	–0.04	1.22	–0.66	0.51	–0.07	0.27	–0.25	0.799
Is protective of those close to him/her	0.06	1.25	0.92	0.36	–0.31	0.26	–1.19	0.235
Responds to and appreciates humor	–0.06	1.35	–0.93	0.35	–0.03	0.26	–0.10	0.920
Is subtly negativistic	–0.06	1.27	–0.95	0.34	–0.57	0.28	–2.05	0.042

Study 1, $N = 401$; Study 2, $N = 419$

Table 7. IIDL Broken Into Five-factor Model

	Study 1 Lay stereotypes				Study 2 Actual ratings			
	Mean	SD	*t*	*p*	Mean diff.	Std. error	*t*	*p*
Extraversion	0.44	0.75	11.57	<0.001	0.06	0.12	0.48	0.633
Agreeableness	–0.42	0.98	–8.56	<0.001	–0.13	0.11	–1.24	0.215
Conscientiousness	0.08	0.89	1.81	0.070	–0.15	0.12	–1.21	0.228
Neuroticism	–0.23	0.81	–5.66	<0.001	–0.16	0.16	–1.03	0.306
Openness to experience	0.14	0.91	3.07	0.002	0.06	0.18	0.33	0.744

Study 1, $N = 401$; Study 2, $N = 410$

Table 8. Q-Sort Broken Into Five-factor Model

	Study 1 Lay stereotypes				Study 2 Actual ratings			
	Mean	SD	*t*	*p*	Mean diff.	Std. error	*t*	*p*
Extraversion	0.30	0.68	8.75	<0.001	0.12	0.15	0.80	0.426
Agreeableness	–0.05	1.01	–0.91	0.36	–0.01	0.22	–0.04	0.972
Conscientiousness	0.24	0.96	4.96	<0.001	0.54	0.29	2.63	0.009
Neuroticism	–0.27	0.84	–6.42	<0.001	–0.44	0.19	–2.37	0.019
Openness to experience	0.34	0.72	9.61	<0.001	0.05	0.14	0.38	0.708

Study 1, $N = 401$; Study 2, $N = 422$

conscientiousness was positively related to those first in command on the Q-sort. Correlations between the IIDL and Q-Sort across the five-factor model ranged from 0.65 to 0.75 with the exception of openness to experience (0.434).

Discussion (*Study 1*)

On both the IIDL and Q-Sort, participants perceived the roles of those first in command and those second in command to be different. Across both measures, participants perceived those first in command to be higher in extraversion and openness to experience than those second in command. Those second in command were perceived as more neurotic than those first in command across both measures as well.

More specifically, participants perceived those first in command to be assertive, confident, power oriented, dominant, and wealthy. On the other hand, participants perceived those second in command to be submissive, self-pitying, self-doubting, youthful, and average. Preliminary results suggest those first in command and those second in command have different personality stereotypes: those first in command are controlling, confident, and assertive and those second in command are submissive and self-pitying.

It should be noted neither efficiency nor productivity were perceived as related to either those first or second in command. This is an interesting finding since much of managerial success is often measured by productivity and efficient output. Though individuals perceive the roles of those first in command and those second in command to be different, it appears they do not perceive those roles to affect productivity or efficiency.

Study 1 examined lay people's stereotypes of those first and second in command. To expand upon this, study 2 investigated whether individuals actually reported differences between those first in command, those second in command, and ordinary coworkers within their organization. Study 1 investigated how people perceived stereotypical first in command and second in command managers. Study 2 explored whether people actually experienced these differences within their own organizations.

Method (*Study 2*)

Participants

Participants in this study were paid to complete surveys online through Amazon Mechanical Turk. The only inclusion criterion for participants was that they were currently employed adults. Participants

were paid one dollar for completing the study. Of the 1,262 participants who completed this second study, 622 were male. Average age was 32.08 (SD=53.33). Participants typically were employed at their organization for three to four years, holding their current position for two to three years on average.

Measures

IIDL. The items from the IIDL measure utilized in study 1 were rated on a 1 to 9 scale from "extremely uncharacteristic of this person" to "extremely characteristic of this person."

California Q-Sort. The items from the Q-Sort measure utilized in study 1 were coded on a 1 to 11 scale from "strongly disagree" to "strongly agree."

Procedure

Participants were randomly assigned to one of three conditions. Participants were either asked to answer questions about the top person in command, the second person in command, or coworkers at their organization. The instructions were as follows:

> *Supervisor instructions*
>
> *PLEASE Think about the highest ranking person in your organization that you come into regular contact with – that is, someone who is in charge of a work group/department/organization. Please answer the next series of questions about him or her.*
>
> *2nd in command instructions*
>
> *PLEASE Think about the person who either is (or would be considered) second in command of your work group/department/organization – this person should be someone who you come into regular contact with, but is one step down from the person in charge. Please answer the next series of questions about him or her.*
>
> *Coworker instructions*
>
> *PLEASE Think about a coworker in your organization who is not in charge of anyone – so someone who works with you, but does not supervise anybody. Please answer the next series of questions about him or her.*

Participants were then asked to give the demographics of the person they were rating. Participants were then randomly assigned to rate their supervisor, second in command, or coworker, on either the Q-sort

or IIDL. On the IIDL, 199 participants rated first in command leaders, 211 rated second in command leaders, and 219 rated coworkers. On the Q-sort, 214 rated first in command leaders, 208 rated second in command leaders, and 216 rated coworkers.

Results (*Study* 2)

We performed ANOVAs on both the IIDL and Q-sort traits in order to determine which traits were most differentiated between those first in command and those second in command. Using the IIDL, the traits most prototypical of those first in command were "wealthy, well-to-do" (t = 4.92, $p < 0.001$) and "lucky, fortunate" (t = 2.85, p = 0.005). Results are in Table 1. The traits most prototypical of those second in command were "youthful, young" (t = –2.33, p = 0.020) and "feminine, not masculine" (t = –2.22, p = 0.027). Results are in Tale 2. Traits that were least differentiated between those first and second in command were "undependable, unreliable" (t = –0.04, p = 0.970) and "happy, joyful" (t = 0.11, p = 0.915) Results are in Table 3.

Using the Q-sort, the traits most prototypical of those first in command were "behaves in an assertive fashion" (t = 3.59, $p < 0.001$) and "has high level of aspiration for self" (t = 2.91, p = 0.004). Results are in Table 4. The traits most prototypical of those second in command were "genuinely submissive; accepts domination comfortably" (t = –3.41, $p < 0.001$) and "gives up in the face of adversity" (t = –2.81, p = 0.005). Results are in Table 5. The traits least differentiated between those first and second in command were "initiates humor" (t = 0.07, p = 0.943) and "responds to and appreciates humor" (t = –0.10, p = 0.920). Results are in Table 6.

In order to assess the potential differences in the personalities of those first and second in command at a higher level, we computed Big Five trait dimensions using the IIDL and Q-sort (Block, 1924; Wood, Nye, & Saucier, 2010). Results are in Tables 7 and 8. Contrary to our hypotheses, there were no significant differences in the five-factor model at the omnibus level for the IIDL.

For the Q-sort, only conscientiousness and neuroticism were found to have significant differences at the omnibus level. Specifically, supporting our hypothesis those first in command scored significantly higher on conscientiousness than both those second in command (mean difference = 0.54, p = 0.01) and coworkers (mean difference= 0.73, $p < 0.001$). Contrary to our hypotheses, there was no significant difference on conscientiousness between those second in command and coworkers (mean difference = 0.20, p = 0.35).

Supporting our hypothesis, those first in command scored significantly lower on neuroticism than both those second in command (mean

difference = 0.44, $p = 0.02$) and coworkers (mean difference = 0.68, $p < 0.001$). Contrary to our hypothesis, there was no significant difference in neuroticism between those second in command and coworkers (mean difference = 0.24, $p = 0.21$). Results are in Table 9.

Item-level profile correlations were computed comparing perceived ratings from study 1 and actual ratings from study 2 in order to determine the degree of accuracy of stereotypes concerning the differences between those first in command and those second in command. The profile matches between study 1 and study 2 were significant for both the IIDL (r=0.72, $p < 0.05$) and the Q-sort (r=0.67, $p < 0.05$).

Table 9. Differences Between First-in-commands, Second-in-commands, and Coworkers Across IIDL and Q-sort for Study 2.

	Mean	Standard deviation	F	P
Extraversion (IIDL)	2.32	2.14	0.31	0.734
First in command	2.41	2.13		
Second in command	2.29	2.14		
Coworker	2.26	2.18		
Agreeableness (IIDL)	2.40	1.94	0.09	0.914
First in command	2.36	1.90		
Second in command	2.43	1.97		
Coworker	2.42	1.97		
Conscientiousness (IIDL)	2.76	2.04	0.86	0.424
First in command	2.84	2.15		
Second in command	2.84	2.03		
Coworker	2.61	1.96		
Neuroticism (IIDL)	2.10	1.55	2.63	0.073
First in command	2.26	1.55		
Second in command	2.14	1.57		
Coworker	1.91	1.51		
Openness to experience (IIDL)	2.30	2.57	1.25	0.288
First in command	2.49	2.65		
Second in command	2.34	2.64		
Coworker	2.09	2.43		
Extraversion (Q-sort)	6.74	1.56	0.32	0.725
First in command	6.80	1.58		
Second in command	6.68	1.53		
Coworker	6.75	1.56		

Table 9. (continued)

	Mean	Standard deviation	F	P
Agreeableness (Q-sort)	6.82	2.24	0.70	0.499
First in command	6.74	2.37		
Second in command	6.75	2.06		
Coworker	6.97	2.26		
Conscientiousness (Q-sort)	7.53	2.16	6.75	0.001
First in command	7.95	2.21		
Second in command	7.42	1.97		
Coworker	7.22	2.22		
Neuroticism (Q-sort)	4.61	1.97	6.72	0.001
First in command	4.24	1.93		
Second in command	4.67	1.87		
Coworker	4.91	2.03		
Openness to experience (Q-sort)	6.10	1.52	0.13	0.880
First in command	6.11	1.46		
Second in command	6.05	1.45		
Coworker	6.13	1.64		

IIDL: first in command $N = 199$, second in command $N = 211$, coworker $N = 219$
Q-sort: first in command $N = 214$, second in command $N = 208$, coworker $N = 216$

Discussion (*Study 2*)

When asked to rate people in their own organization, individuals did not perceive those first in command and second in command in their own organizations to be as different as the perceived stereotypes from study 1. At the omnibus level, none of the traits of the five-factor model were significant for the IIDL. For the Q-sort, those first in command were rated higher than both those second in command and coworkers on conscientiousness. Similar to study 1, results from the Q-sort questionnaire showed those first in command were rated lower than those second in command on neuroticism. Those first in command also were rated lower on neuroticism than coworkers.

Though the differences between first and second in commands in study 2 were not as great as the differences found in study 1, the strong correlation between profile matches of study 1 and study 2 show that there is a substantial match in how people stereotype those first and second in command and how they actually rate them in real life. Though the differences themselves are not substantial, there is a great deal of accuracy in perceiving the traits that are different.

Conclusion

Leadership researchers using trait approaches have focused mainly on investigating the differences between leaders and followers and whether or not traits can predict leadership effectiveness (Zaccaro, 2007; Kirkpatrick & Locke, 1991). For example, extraversion and openness were found to predict both leadership effectiveness and emergence, while other Big Five traits showed inconsistent relationships with these leadership categories (Judge et al., 2002). However, few studies have examined personality differences at different levels of leadership (Lemming et al., 2009; Ones & Dilchert, 2009). To date, no study has examined personality differences between those first in command and those second in command. The current study attempted to address this gap in the literature by first surveying an employed sample concerning their stereotypes and then conducting a follow-up study of actual leaders to see whether these stereotypes were accurate.

Based on prior literature (Ones & Dilchert, 2009), we expected those first in command to be higher on emotional stability, extraversion, and agreeableness and lower on neuroticism than those second in command. We also expected both those first and second in command to be higher on extraversion and agreeableness, and lower on conscientiousness and neuroticism than coworkers. We found partial support for these hypotheses. Specifically, we found that extraversion was significantly related to those first in command while neuroticism was significantly related to those second in command. Contrary to our hypotheses, agreeableness was positively related to those second in command on the IIDL and was unrelated to either those first or second in command on the Q-sort. At a more molecular level, participants stereotyped those first in command to be assertive, confident, power oriented, dominant, and wealthy while those in second in command roles were stereotyped as being submissive, self-pitying, self-doubting, youthful, and average. These results suggest there are stereotypes associated with being either first or second in command in that those first in command have more agency and ambition while those second in command are more docile and have lower self-esteem.

To examine the validity of these stereotypes, individuals rated either their actual first in command leader, second in command leader, or a coworker in study 2. For higher-order traits, the results offered little support for the accuracy of stereotypes. None of the Big Five traits were significant in the expected direction when assessing personality using the IIDL. For the Q-sort, only conscientiousness and neuroticism were found to have significant differences at the omnibus level. Specifically, contrary to our hypothesis, those first in command scored significantly higher on

conscientiousness than coworkers and there was no significant difference in conscientiousness between those second in command and coworkers.

Supporting our hypothesis, those first in command scored significantly lower on neuroticism than both those second in command and coworkers. However, contrary to our hypothesis, there was no significant difference in neuroticism between those second in command and coworkers. These results indicate that leaders are different than followers, in that there are differences between those first and second in command. However, there were not many differences between those second in command and coworkers.

Overall, the magnitude of trait differences between those first and second in command were much lower in the actual ratings of study 2 than the perceived stereotypes of study 1. However, additional analyses showed that although there were fewer traits with significant differences in study 2, the pattern of results closely matched the lay stereotypes from study 1. Thus, although the stereotypes of first and second in command leaders could be exaggerated, they could also be said to reflect the actual differences seen in the workplace.

One potential reason stereotypes from study 1 were stronger than actual ratings from study 2 is that in study 1, raters were to compare and contrast the roles of first and second in commands. This gave rates a justification for "finding" or exaggerating small differences. In study 2, raters were not asked to compare roles nor were they given behavioral anchors, so the tendency may have been to compare the targets to "normal" or "average" individuals. In this context, if both first and second in command leaders were seen as representing a leader prototype, they may both be rated as being equally different from the norm and therefore there would be less likelihood of significant differences. Another reason why results were at times contrary to hypotheses was that aggregation of traits can overlook effects when there are contrasting effects at the sub-facet level. That is, when traits are grouped together according to the five-factor model, it is possible that certain traits negate one another within each of the Big Five's five categories. For example, higher-ranking leaders may be prone to express aggressive behavior and less likely to display fear. However, because both of these traits get aggregated into neuroticism, the differences can be obfuscated.

When looking at individual traits, as oppose to aggregate Big Five scores, those first in command were rated most prototypical of being assertive, power oriented, influential, and having high aspirations. Those second in command were rated most prototypical of being submissive, giving up during adversity, self-defeating, youthful, and feminine. It is clear that people view these roles differently in both their stereotypes and actual ratings.

Our results seem to offer at least some support for the idea that first and second in commands are different. However, the current findings do not address the problem as to why this occurs. Two potential explanations have been offered. One is the selection effect (Ones & Dilchert, 2009). Since individuals who perform at higher levels are more likely to be promoted, over time individuals that better fit "leader prototypes" are more likely to rise to higher levels of leadership in organizations. The other explanation is the corresponsive effect, where traits that enable an individual to succeed in an environment will be the traits that develop further in that environment (Roberts et al., 2001). According to this theory, if a characteristic is required within a context, individuals will change over time and develop more of that trait in response. Future research should attempt to address which if either of these explanations can be supported.

Limitations

Limitations of this study include using single-source ratings. This is problematic because single-source ratings can be clouded by personal relationships of the rater, which may not accurately reflect the personality of the person they are rating. However, because we aggregated our results across hundreds of raters, these idiosyncratic effects should have cancelled one another out.

Another limitation is the lack of self-ratings of leaders. Leader self-ratings would allow for a check against using single-source ratings. By having both self-ratings and outsider ratings, the validity of ratings could be better assessed. With multiple ratings of the same person, ratings that are biased because of personal relationships and do not reflect the true personality of the person being rated can be detected.

Also, this study relied on an online sample where participants filled out surveys in their own setting without supervision or individual instruction. In an anonymous online setting, there is no way to ensure that participants are who they say they are. This can lead to inaccurate demographic data. The lack of supervision or instruction may have led to participants incorrectly following directions, which could skew results. Another problem with online surveys is that they do not use a truly random sample. Rather, individuals who want to fill out surveys for money self-select themselves to participate in studies. This leads to less scientific and generalizable results.

Future Research

Though there have been studies examining different levels of mangers, most research has focused on differences between leaders and their

followers. As more research is done examining different levels of managers, an emphasis should be placed on how personality affects productivity, effectiveness, and follower satisfaction at each level of the managerial hierarchy. Industry effects should also be examined to see if stereotypes hold true for different types of organizations. For example, do first in command stereotypes generalize across business and government settings?

Another area of potential future research is looking at different organizational levels. That is, are differences between those first and second in command any different on a low level team than a high level team? For example, are the difference between those first and second in command any different between managers and assistant managers at a local restaurant compared to presidents and vice presidents of Fortune 500 companies?

One possible reason first and second in commands are viewed differently is that their personalities may be shaped by their job. Since it's possible that people's personalities change over time to fit the job they've been assigned to (Roberts et al., 2001), it's possible that being first or second in command changes an individual's personality until their personality fits the job. Since those second in command take orders from those first in command, it is only fitting that those first in command are perceived to be assertive while those second in command are perceived to be submissive. This issue of selection versus change effects should be further examined via longitudinal studies. To do this, individuals would need to be selected and given personality tests prior to starting a new job. Then, after working the job for a set amount of time, individuals would periodically be given personality tests to see if their personalities have changed since getting the job.

Though we found only partial support for our hypothesized relationships, our results indicate that real differences exist between those first in command and those second in command. Understanding the differences between these different levels of leadership helps us better understand personality types in the workplace. Though the stereotypes were stronger than actual ratings, there was a strong match between the patterns of both. This gives credence to the stereotypes individuals hold about those first and second in command in their own organizations.

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