Differences in Judgment and Decision-Making across Job Levels

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Abstract

Leadership judgments drive corporate performance. However, it is common for leaders to make poor decisions. Therefore, it is necessary to look at judgment tendencies and the ability to learn from past mistakes. This study examines judgement at different job levels to identify differences in key judgment tendencies.

Introduction

Good judgment is essential for effective leadership. At the organizational level, sound judgment drives company profitability. A study of more than 1,000 major business investments found higher financial returns when organizations worked to reduce judgment biases in decision-making processes (Lovallo & Sibony, 2010). At the group level, an understanding of individual strengths in decision-making can drive team performance (Austin, 2003). At the individual level, leadership decisions impact the lives of the people affected by those decisions (Safi & Burrell, 2007), such that the leader's judgment can have significant consequences on much larger groups. In an organizational context, leadership decisions affect individual outcomes such as employee performance, satisfaction, and commitment (Russ, McNeilly, & Comer, 1996).

Despite the importance of effective judgment and decision making, ineffective leadership decisions remain prevalent. For example, a study of 356 decisions made in medium to large organizations in the U.S. and Canada revealed that 50% of managers' decisions fail (Nutt, 1999; 2004). Given the high rate of failed leadership decisions, it is critical to explore key judgment considerations of effective leaders. Further, it is important to consider the differences in judgment at leadership levels in comparison to other job levels. This information can be used to drive improvements in decision making as individuals work from lower level positions into leadership roles.

Reactions to Decision Feedback

Understanding individual differences in decision-making preferences is necessary but not sufficient for improving judgment. Researchers (e.g., Kahneman, Lovallo, & Sibony, 2011; Milkman, Chugh, & Bazerman, 2009) have suggested that awareness of judgment biases minimally improves decision quality. According to Fischhoff (1982), the best way to overcome judgment bias is to combine feedback with coaching. Brett and Atwater (2001) found that people with a learning goal orientation are receptive to negative feedback, leading to a greater likelihood of performance improvement. Similarly, Smither, London, and Richmond (2005) found that leaders who react positively to feedback are likely to benefit from multi-source feedback. These findings suggest there are also important individual differences in receptiveness to feedback, and greater receptiveness is associated with greater benefits.

Overall, the study of human judgment indicates that individuals vary in decision-making approaches and react differently to feedback. As decisions impact organizations and employees, understanding such individual differences is critical for leadership development. The goal of the present study is to examine differences in judgment scores between job levels ranging from individual contributors to executives. By examining these differences, we

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propose that individual scores can help drive developmental opportunities for future leaders and/or identify key judgment considerations for the selection of individuals into leadership roles.

Individual Differences in Pre-Decision Tendencies

Threat Avoidance vs. Reward Seeking. Decisions entail potential threats and rewards, and individuals differ in their tendencies to avoid threats or seek rewards. Loss-aversion theory suggests people pay more attention to potential threats than rewards when evaluating decision options (e.g., Benartzi & Thaler, 1995; Kliger & Levit, 2009; McGraw, Larsen, Kahneman, & Schkade, 2010). However, people also vary in their risk perceptions. For example, entrepreneurs perceive risks as less threatening (Cooper, Woo, & Dunkelberger, 1988) and focus on the potential for future rewards. McGhee, Ehrler, Buckhalt, and Phillips (2012) found that FFM Extraversion, Openness, and (low) Conscientiousness predict risk-taking behaviors in pre-adolescents. Research with adults suggests that Extraversion, positive affectivity, and sensitivity to Behavior Activation Systems (BAS) are associated with achievement motivation, while Neuroticism, negative affectivity, and sensitivity to Behavior Inhibition Systems (BIS) are associated with the motivation to avoid failure (Atkinson, 1957; Elliot & Thrash, 2002).

Different organizations need decision makers with varying tendencies to avoid threats or seek rewards. For example, start-up companies need reward-seeking employees who will make bold decisions to expand the company's bottom line, whereas investment advisors should make decisions that minimize potential threats to their clients' finances (Weber, Blais, & Betz 2002). Understanding personal preferences for threat avoidance or reward seeking can help individuals develop decision-making skills tailored to organizational needs.

Tactical vs. Strategic Thinking. When approaching decisions, tactical thinkers tend to focus on cost, implementation, and staffing, and neglect long-term issues (Leonard & McAdam, 2002). Strategic thinkers tend to focus on big picture trends, capabilities, and sustainable gains (Citroen, 2011), but neglect important logistics. Sustained success and growth requires both strategic vision and tactical execution. Organizations can use information about the tactical or strategic preferences of their employees to select, position, and develop key talent. Individuals who are aware of their natural inclination for tactical or strategic thinking can ensure they consider both short- and long-term goals.

Data-driven vs. Intuitive Decisions. Some decision makers rely on information, whereas others prefer experience-based intuition. Intuitive thinkers prefer fast, automatic, and effortless decision making. In contrast, data-driven thinkers prefer slow, controlled, and effortful decision making to consider all relevant alternatives, potential consequences, and probabilities (Simon, 1979).

Deliberate thinking is related to need for structure, need for cognition, Conscientiousness, and perfectionism. Intuitive thinking relates to Extraversion, Agreeableness, and Openness to experience (Betsch, 2008). Within any organization, some decisions require careful consideration (Choudhry, Fletcher, & Soumerai, 2005; Swets, Dawes, & Monahan, 2000; Tetlock, 2005), while others must be made quickly (Gigerenzer & Gaissmaier, 2011).

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Making decision makers self-aware can help them develop skills to combine information and intuition without leaning too heavily on one or the other.

Individual Differences in Post-Decision Reactions

Although past research demonstrates performance improvements following feedback interventions (e.g., Latham & Locke, 2007), a meta-analysis showed reduced performance in more than one third of cases (Kluger & DeNisi, 1996), suggesting that individual differences in reactions to feedback can drive performance up or down following feedback. Individual differences in self-esteem, self-efficacy, and need for achievement are related to readiness for and perception of feedback (Shrauger & Rosenberg, 1970; Steers, 1975). For example, individuals with low self-esteem and self-efficacy tend to perceive critical feedback as too harsh, which further inhibits their task performance. Unlike the general tendencies of pre-decision scales, post-decision scales concerning reactions to feedback have clear positive and negative sides that can influence coaching and development.

Defensive vs. Cool-headed. Some individuals respond to negative feedback by becoming emotionally volatile and blaming external factors. In contrast, individuals who remain cool-headed after receiving negative feedback are likely to recognize personal faults and set improvement goals. For example, individuals with an internal locus of control are more receptive to feedback than those with an external locus of control because they take ownership of their behaviors and are motivated to improve (Feather, 1968).

Denial vs. Acceptance. According to Freud (1946), denial represents one of the most common defense mechanisms to protect the mind from negative thoughts and feelings. Although denial can ease emotional discomfort, it does not help decision makers reflect on mistakes and make better decisions in the future. For example, Kluger and DeNisi (1998) found that individuals who direct attention to themselves after receiving feedback are less likely to make improvements than those who direct attention to the task because their affective reactions interfere with subsequent task performance.

Superficial vs. Genuine Engagement. Some reactions to feedback are motivated by the desire to maintain positive social impressions (Aitkenhead, 1984). According to Ashford and Northcraft (1992), the propensity to manage impressions limits feedback-seeking in evaluative contexts. Research on collegiate swimmers concludes those with high self-efficacy are intrinsically motivated following negative feedback, driving them to reflect on and improve their performance (Marsden, 1998). Similarly, business leaders who genuinely engage in negative feedback are likely to make better decisions in the future.

Research Study

Differences in pre-decision tendencies can be expected based on job level within an organization. We conducted the following study to explore these differences in judgment based on a comparison of four job levels: Executives, Middle Managers, Entry-Level Supervisors, and Individual Contributors. At higher levels, we expect individuals in leadership positions to be more focused on driving the business forward, seeking business opportunities, and monetary gains. Based on these expectations, we offer the following hypothesis:

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Hypothesis 1: Compared to employees at other job levels, Executives will score as significantly more Reward Seeking.

At higher levels, leaders may be more focused on big picture issues, compared to day-to-day tasks typically handled by lower level employees. Based on this expectation, we propose the following hypothesis:

Hypothesis 2: Compared to employees at other job levels, Executives will score as significantly more Strategic.

As an employee progresses into higher levels within the organization, we may expect them to become less receptive to feedback from others, especially subordinates. However, we did find that self-esteem and self-efficacy are related to an individual's ability to effectively receive feedback. We believe that leaders will move into higher level positions based on higher levels of competence and confidence that allows them to stand out amongst their peers. This will align with an ability to more effectively receive feedback and make adjustments to decision-making styles. Based on these assumptions, we propose the following hypotheses:

Hypothesis 3: Compared to employees at other job levels, Executives will score significantly higher (react more positively to negative feedback) based on post-decision reaction scales.

Hypothesis 4: Compared to employees at other job levels, Executives will score significantly higher on Overall Openness to Coaching and Feedback.

Method

Measure

To assess individual differences in judgment and decision-making, we used the Hogan Judgment Assessment. This measure uses personality and cognitive ability items to (a) account for individual differences in how leaders process information (not included in this study), (b) describe individual differences in pre-decision tendencies (Threat Avoidance vs. Reward Seeking, Tactical vs. Strategic, and Data-Driven vs. Intuitive), and (c) examine various reactions to criticism in the post-decision phase (Defensive vs. Cool-Headed, Denial vs. Acceptance, and Superficial vs. Genuine). The assessment includes timed numerical and verbal information processing sections, as well as a 75-item untimed assessment focusing on pre-and post-decision tendencies.

Each pre-decision scale pairing is represented on a continuum with scales labeled as though they were dichotomous, where low scores align with one side of the pair and high scores align with the other. For instance, low scores on the Threat Avoidant vs. Reward Seeking scale represent a tendency to avoid perceived threats and risks when considering a decision. In contrast, high scores represent a tendency to maximize potential gains and rewards when considering decisions. Pre-decision scales do not necessarily have "good" or "bad" scores. Instead, the organizational environment and the individual's role in it will influence whether it is more beneficial to be threat avoidant or reward seeking.

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Post-decision reaction pairings are scored and labeled in a similar manner as the pre-decision tendency scales. For example, low scores on the Defensive vs. Cool-Headed scale indicate tendencies to become emotional and agitated when faced with criticism about a past failed decision. High scores on this scale indicate tendencies to react to this same criticism with a more cool-headed demeanor. As this example illustrates, the post-decision reactions scales have clearer "positive" and "negative" scores than the pre-decision scales. Lower scores on the post-decision scales indicate tendencies to resist feedback, whereas higher scores represent tendencies to remain open and receptive to critical feedback. When combined, scores on the three post-decision reactions scales represent an individual's overall openness to feedback and coaching.

Data & Participants

To test our hypotheses, we obtained data from a global database of employees who completed the Hogan Judgment Assessment and received reports as part of professional development efforts. The sample included 38% male and 25% female participants (38% did not indicate gender). Ages ranged from 18 to 75 (M = 42.36, SD = 9.33). The sample included 422 employees who reported their job level as Individual Contributor, 152 Entry-Level Supervisors, 708 Middle Managers, and 986 Executives.

Analysis

To determine if average scores on pre- and post-decision scales varied across job levels, we conducted analyses of variance (ANOVA) tests. Where these results were statistically significant, we conducted Tukey post-hoc comparisons to identify the specific job levels where these tendencies varied most.

Results

Table 1 presents ANOVA results for scores on the pre- and post-decision scales. Table 2 presents the differences between job levels on the pre-decision tendencies. As shown in Table 2, Executives (M = 70.12) scored significantly higher on Reward Seeking ($F(3, 2265) = 21.21$, $\rho < 0.000$) than all other groups, including Middle Managers (M = 62.57), Individual Contributors (M = 62.38), and Entry-Level Supervisors (M = 58.19). This supports Hypothesis 1. Executives (M = 73.32) also scored significantly higher on Strategic Thinking than Middle Managers (M = 62.96), Entry-Level Supervisors (M = 62.28), and Individual Contributors (M = 57.44). In fact, these were the most significant results ($F(3, 2265) = 46.43$, $\rho < 0.000$) in our study, and showed strong support for Hypothesis 2. In addition, Individual Contributors scored significantly higher on Tactical Thinking (M = 42.56) in comparison to Middle Managers (M = 37.04; $\rho < 0.01$) and Executives (M = 26.68; $\rho < 0.000$) further highlighting the differences in tactical and strategic tendencies based on job level. Score differences on the Data-Driven vs. Intuitive scale were not significant across job levels ($F(3, 2265) = 1.67$, $\rho = 0.17$), although it is worth noting that Executives (M = 61.14) and Middle Managers (M = 60.85) did show a higher preference for intuition than Entry-Level Supervisors (M = 57.88) and Individual Contributors (M = 58.49).

Table 3 presents job level differences on the post-decision reaction scales. Examining scores on the Defensive vs. Cool-Headed scale, the table shows that all four job levels

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scored as generally Cool-Headed in responding to critical feedback about poor decisions. However, these differences approached statistical significance ($F(3, 2265) = 2.36$, $\rho = 0.07$) for Executives ($M = 65.62$) compared to Individual Contributors ($M = 61.84$). Examining scores on the Denial vs. Acceptance scale, Individual Contributors ($M = 51.08$) scored as significantly more accepting ($F(3, 2265) = 18.33$, $\rho < 0.000$) than Middle Managers ($M = 45.28$), Entry-Level Supervisors ($M = 43.84$), and Executives ($M = 40.44$). Comparing scores on the Superficial vs. Genuine Engagement scale, we see that Executives ($M = 73.56$) scored significantly higher ($F(3, 2265) = 27.99$, $\rho < 0.000$) on Genuine Engagement than Middle Managers ($M = 67.43$), Individual Contributors ($M = 62.25$), and Entry-Level Supervisors ($M = 59.24$). Likewise, Middle Managers scored significantly higher than Entry-Level Supervisors and Individual Contributors on this scale. Overall, these findings did not lend support for Hypothesis 3.

Table 4 presents overall differences between employees across job levels on Openness to Feedback and Coaching. Average scores were significantly different ($F(3, 2265) = 3.87$, $\rho < 0.01$) for Executives, who scored higher on overall receptivity to coaching ($M = 59.62$) than Entry-Level Supervisors ($M = 51.64$). These findings showed some support for Hypothesis 4, however, we did not see the expected progression to more receptive based on competence and confidence as individuals move to higher levels of leadership.

Discussion

Across pre-decision scales, we see that major differences in decision-making tendencies exist between Executives and lower-level employees. As expected at higher levels of management, Executives scored significantly higher on Reward Seeking and Strategic Thinking compared to other job levels. Once an employee reaches the highest level of organizational leadership, we would expect him or her to focus on big picture issues and the potential for organizational gains. Further supporting this statement, Individual Contributors scored significantly higher on the Tactical side of the scale compared to Middle Managers and Executives. This finding supports the general day-to-day decision making associated with lower job levels within an organization. In general, our results indicate that the higher an individual moves up within a company, the more he or she will tend to focus on strategic issues and potential for rewards when making decisions.

In terms of the post-decision scales, employees across all job levels scored as Cool-Headed in response to criticism, with no significant differences between groups. This differed from findings for the Denial vs. Acceptance scale, where Individual Contributors were more accepting of critical feedback than employees at higher job levels. This result may reflect the proximity of individual contributors to the results and outcomes of their decisions. Conversely, employees at higher levels may find it easier to deny their role in negative decision outcomes when they are engaged in making but not implementing the strategic decision.

When examining results for the Superficial vs. Genuine Engagement scale, we observed results that met our expectations. Specifically, we found that individuals at higher job levels were more likely to genuinely engage in development opportunities compared to employees at lower job levels. This finding may reflect a greater level of organizational commitment and

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a more positive perception of development opportunities among employees at higher job levels.

Our data indicated that Executives had a tendency to show more positive reactions to critical feedback than employees at lower job levels. This pattern is most evident in findings for Openness to Feedback and Coaching, where Executives scored significantly higher than Entry-Level Supervisors and higher than employees at other job levels as well. In fact, the only exception to this rule was for the Denial vs. Acceptance scale. In short, our results indicate that the higher an individual is in a company, the more likely he or she is to react favorably to critical feedback and use this information to drive subsequent development.

This study was based on a sample from a research archive of data from the Hogan Judgment Assessment. Future research may benefit from breaking the job level categories described above into more specific strata to examine differences in organizational judgment in greater detail. Future researchers may also consider the context of the organization when examining scores on the pre- and post-decision scales. Specifically, due to the context-driven nature of desired ranges on the pre-decision scales, one may find differences within a specific job level based on differing needs of the role across specific environments or industry sectors. Finally, this study did not examine job level-based differences in verbal or numerical information processing based on associated scores from the Hogan Judgment Assessment. Future research may consider score differences in these scales as they relate to organizational judgment and decision-making.

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Table 1

ANOVA Results for Pre-Decision Tendencies and Post-Decision Reactions

		Sum of Squares	df	Mean Square	F	Sig.
Reward Seeking vs. Threat Avoidant	Between Groups	39397.50	3	13132.50	21.21	.00
	Within Groups	1402126.80	2265	619.04		
	Total	1441524.30	2268			
Tactical vs. Strategic	Between Groups	92056.09	3	30685.36	46.43	.00
	Within Groups	1496903.06	2265	660.88		
	Total	1588959.15	2268			
Data-Driven vs. Intuitive	Between Groups	3176.51	3	1058.84	1.67	.17
	Within Groups	1440527.26	2265	635.99		
	Total	1443703.77	2268			
Defensive vs. Cool-Headed	Between Groups	5408.87	3	1802.96	2.36	.07
	Within Groups	1731394.33	2265	764.41		
	Total	1736803.20	2268			
Denial vs. Acceptance	Between Groups	34715.24	3	11571.75	18.33	.00
	Within Groups	1429633.64	2265	631.19		
	Total	1464348.88	2268			
Superficial vs. Genuine	Between Groups	55622.29	3	18540.76	27.99	.00
	Within Groups	1500287.69	2265	662.38		
	Total	1555909.98	2268			
Openness to Feedback & Coaching	Between Groups	9044.10	3	3014.70	3.87	.01
	Within Groups	1764015.22	2265	778.82		
	Total	1773059.32	2268			

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Table 2

Post-Hoc Comparisons of Pre-Decision Tendencies by Job Level

Dependent Variable	Job Level	Comparison Job Level	Mean Diff.	Std. Error	Sig.
Reward Seeking vs. Threat Avoidance	Individual Contributor	Entry-Level Supervisor	4.19	2.35	.28
		Middle Manager	-0.19	1.53	1.00
		Executive	-7.74	1.45	.00
	Entry-Level Supervisor	Individual Contributor	-4.19	2.35	.28
		Middle Manager	-4.38	2.22	.20
		Executive	-11.93	2.16	.00
	Middle Manager	Individual Contributor	0.19	1.53	1.00
		Entry-Level Supervisor	4.38	2.22	.20
		Executive	-7.55	1.23	.00
	Executive	Individual Contributor	7.74	1.45	.00
		Entry-Level Supervisor	11.93	2.16	.00
		Middle Manager	7.55	1.23	.00
Tactical vs. Strategic	Individual Contributor	Entry-Level Supervisor	4.84	2.43	.19
		Middle Manager	5.51	1.58	.00
		Executive	15.88	1.50	.00
	Entry-Level Supervisor	Individual Contributor	-4.84	2.43	.19
		Middle Manager	0.68	2.29	.99
		Executive	11.04	2.23	.00
	Middle Manager	Individual Contributor	-5.51	1.58	.00
		Entry-Level Supervisor	-0.68	2.29	.99
		Executive	10.36	1.27	.00
	Executive	Individual Contributor	-15.88	1.50	.00
		Entry-Level Supervisor	-11.04	2.23	.00
		Middle Manager	-10.36	1.27	.00
Data-Driven vs. Intuitive	Individual Contributor	Entry-Level Supervisor	-0.61	2.38	.99
		Middle Manager	2.36	1.55	.43
		Executive	2.65	1.47	.27
	Entry-Level Supervisor	Individual Contributor	0.61	2.38	.99
		Middle Manager	2.97	2.25	.55
		Executive	3.25	2.19	.45
	Middle Manager	Individual Contributor	-2.36	1.55	.43
		Entry-Level Supervisor	-2.97	2.25	.55
		Executive	0.29	1.24	1.00
	Executive	Individual Contributor	-2.65	1.47	.27
		Entry-Level Supervisor	-3.25	2.19	.45
		Middle Manager	-0.29	1.24	1.00

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Table 3

Post-Hoc Comparisons of Post-Decision Reactions by Job Level

Dependent Variable	Job Level	Comparison Job Level	Mean Diff.	Std. Error	Sig.
Defensive vs. Cool-Headed	Individual Contributor	Entry-Level Supervisor	0.65	2.61	1.00
		Middle Manager	1.33	1.70	.86
		Executive	3.79	1.61	.09
	Entry-Level Supervisor	Individual Contributor	-0.65	2.61	1.00
		Middle Manager	0.68	2.47	.99
		Executive	3.14	2.40	.56
	Middle Manager	Individual Contributor	-1.33	1.70	.86
		Entry-Level Supervisor	-0.68	2.47	.99
		Executive	2.46	1.36	.27
	Executive	Individual Contributor	-3.79	1.61	.09
		Entry-Level Supervisor	-3.14	2.40	.56
		Middle Manager	-2.46	1.36	.27
Denial vs. Acceptance	Individual Contributor	Entry-Level Supervisor	-7.23	2.37	.01
		Middle Manager	-5.80	1.55	.00
		Executive	-10.63	1.46	.00
	Entry-Level Supervisor	Individual Contributor	7.23	2.37	.01
		Middle Manager	1.44	2.24	.92
		Executive	-3.40	2.18	.40
	Middle Manager	Individual Contributor	5.80	1.55	.00
		Entry-Level Supervisor	-1.44	2.24	.92
		Executive	-4.84	1.24	.00
	Executive	Individual Contributor	10.63	1.46	.00
		Entry-Level Supervisor	3.40	2.18	.40
		Middle Manager	4.84	1.24	.00
Superficial vs. Genuine	Individual Contributor	Entry-Level Supervisor	-3.02	2.43	.60
		Middle Manager	5.18	1.58	.01
		Executive	11.31	1.50	.00
	Entry-Level Supervisor	Individual Contributor	3.02	2.43	.60
		Middle Manager	8.19	2.30	.00
		Executive	14.32	2.24	.00
	Middle Manager	Individual Contributor	-5.18	1.58	.01
		Entry-Level Supervisor	-8.19	2.30	.00
		Executive	6.13	1.27	.00
	Executive	Individual Contributor	-11.31	1.50	.00
		Entry-Level Supervisor	-14.32	2.24	.00
		Middle Manager	-6.13	1.27	.00

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Table 4

Post-Hoc Comparisons of Overall Receptiveness to Feedback & Coaching by Job Level

Dependent Variable	Job Level	Comparison Job Level	Mean Diff.	Std. Error	Sig.
Openness to Feedback & Coaching	Individual Contributor	Entry-Level Supervisor	5.86	2.63	.12
		Middle Manager	-0.02	1.72	1.00
		Executive	-2.12	1.62	.56
	Entry-Level Supervisor	Individual Contributor	-5.86	2.63	.12
		Middle Manager	-5.88	2.49	.08
		Executive	-7.98	2.43	.01
	Middle Manager	Individual Contributor	0.02	1.72	1.00
		Entry-Level Supervisor	5.88	2.49	.08
		Executive	-2.10	1.38	.42
	Executive	Individual Contributor	2.12	1.62	.56
		Entry-Level Supervisor	7.98	2.43	.01
		Middle Manager	2.10	1.38	.42

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