THE OHIO STATE UNIVERSITY
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ON LEADER SELF-AWARENESS

Leader self-awareness has been an important topic in leadership and organizational behavior areas in the past few decades. It refers to a leader's ability to assess others' evaluations of the self and incorporate those assessments into one's self-evaluation and self-improvement.[1]

Leader's self-awareness has been found to positively relate to many important individual and organizational outcomes. Studies have shown that self-aware leaders tend to have better performance,[1] higher levels of leadership effectiveness[2] and are more likely to be promoted.[3] This is due to the fact that self-aware leaders have more accurate knowledge about their strengths and weaknesses, have positive attitudes toward feedback[4] and set goals to improve their performance.[5] Therefore, due to their lack of self-improvement, those leaders whose self-ratings are low and are in agreement with others cannot be categorized as self-aware leaders.[6]

Most studies on leader self-awareness particularly focus on the area of self-other agreement on leadership ratings,[6] which are often measured as the degree of congruence or deviation of the leadership ratings from leaders and their subordinates, peers and/or supervisors.

Meanwhile, compared to subordinates of leaders who like to overrate themselves, self-aware leaders are more satisfied with their jobs and are less likely to leave the organization, while these leaders' supervisors tend to give them higher performance and effectiveness ratings.[7]

The purposes of this white paper were to contribute to research on leaders' self-awareness by presenting some new findings on leaders' self-awareness and re-examining past research results on (a) the antecedents of leader self-awareness, (b) how leaders' self-subordinate rating agreements on various leadership competencies impact supervisor-rated leadership effectiveness and (c) the processes of such influences.

Data were collected from a U.S. Midwestern regional financial institution. A total of 170 leaders, their subordinates and supervisors completed surveys on the leaders' characteristics, leadership abilities and leadership effectiveness at two time points. Overall, 64 male leaders (38%) and 106 (62%) female leaders participated in the study. The majority of leaders were Caucasian (97%) with an average age of 45 years old.

Each leader rated themselves and was rated by at least three subordinates on their leadership abilities; they were rated by their direct supervisors on their leadership effectiveness. Other leader information such as their IQ, rank, age and gender was also collected.

We examined the antecedents of self-other agreement on five leadership abilities: articulating vision, intellectual stimulation, consideration, initiating structures and ethical leadership. We also tested how self-subordinate agreement on these four leadership aspects affect supervisor-rated leadership effectiveness. Our major findings will be explained and discussed in the following sessions.

THE ANTECEDENTS OF LEADER SELF-AWARENESS

In this section, we want to show you how the leaders' demographic information (i.e., IQ, gender, age and rank within the organization) and their personality traits affect their self-awareness on different leadership abilities (competencies). The leadership competencies included in the study are:

- **Articulating Vision**
  The ability to identify and articulate the vision of the organization has been identified as one important leadership skill. It includes behaviors on the part of the leader aimed at identifying new opportunities for the organization, articulate them to others and the ability to inspire and develop others with his/her vision.[8]

- **Intellectual Stimulation**
  Intellectual stimulation features behaviors of a leader that aim at challenging followers to wear their thinking hats. It also includes behaviors that encourage subordinates to come up with new solutions to old problems, be creative and continually challenge the old assumptions within the organization.[9,10]

- **The Ohio State Leadership Model**[11]
  The Ohio State University Leadership Studies brought up two leadership categories in the 1940s, which are still influential today:
  - **Consideration**
    Leaders who score high on consideration focus on behaviors that regard followers' well-being and comfort. They often present behaviors such as doing personal favors for group members, listening to others, backing up their subordinates, treating everyone else as equals, and being friendly and approachable.
  - **Initiating Structure**
    Leaders who have a high level of initiating structure often perform behaviors that clearly define one's role as a leader and let others know what is expected. They will make their attitudes clear to the group, criticize poor work, define and maintain certain levels of performance, and encourage the use of uniform procedures.

- **Ethical Leadership**
  Ethical leadership marks a type of leader behavior where the actions, decisions and influences of a leader are consistent with their ethical and moral values. Ethical leaders frequently communicate with their followers about ethics, set clear ethical standards and reward/punish followers based on these standards.[12] Some of the statements used to measure this style of leadership are: making fair and balanced decisions, setting a good example of how things should be done and being trustworthy.

Multivariate regression, a statistical technic that can identify and compare how differently multiple factors predict ratings from two different groups (in this case, they are leaders' self-ratings and the average ratings they received from their subordinates), was used for data analyses.

LEADERS' DEMOGRAPHIC INFORMATION

Research have found that leader self-awareness, in the form of self-other agreement, is related to leaders' demographic information.

IQ

Past research has found that leaders with higher levels of education tend to have higher self-other agreement in their leadership ratings.[13] In fact, evolutionary biologists have found that self-awareness requires complicated cognitive processes, which involve not only viewing oneself from one's own perspective but also understanding oneself from the reflection of others and projecting onto others what one learns about him/herself from both self and others.[14] Therefore, a leader's general cognitive abilities (IQ) may also contribute to one's ability to accurately assess oneself and his/her images in other people's eyes and act accordingly.

However, our results didn't support this assumption. We found that IQ is negatively related to self-rated ability in articulating vision but is not related to subordinates' ratings of this ability (Table 1). To put it simply, leaders with higher IQs tend to give themselves lower ratings in articulating vision than the others — but not in other leadership abilities. Thus, in our study, leaders with high IQs actually tend to underestimate their ability to articulate vision (Table 1).

GENDER

Traditionally, males have been found to overrate their abilities while females are more accurate in their self-estimations.

More specifically, female leaders (compared to their male counterparts) are more likely to underestimate their own leadership abilities, such that female leaders tend to give themselves lower ratings than the ratings their supervisor and subordinates give them, while male leaders are more likely to overestimate their abilities, [15,16,17] even though they are better at communicating with subordinates and showing consideration — according to their supervisors and subordinates.[15] This can be because female leaders tend to attribute their success to external sources more than their internal abilities, [2] while male leaders more likely to attribute their success to their personal competencies.

Our findings are consistent with past research that female leaders underestimated themselves in three of the four leadership abilities examined in the current study. In comparison with the ratings given by their subordinates, female leaders tend to give themselves lower ratings on their abilities of intellectual stimulation, consideration, initiating structure and ethical leadership (Table 2 to 5).

AGE & RANK

Past findings indicated that older managers, in comparison to their younger counterparts, tended to overrate their performance or leadership effectiveness.[15,18] One explanation for these findings is that these managers may see their older age as an advantage in their self-ratings (due to more life and work experience accumulated), but such advantages were not recognized by others. Those who have higher ranks within the organizations also tend to overrate themselves due to a lack of proper channels for feedback.[15]

However, in the current study, we found that neither rank nor age are predictors of one's self-awareness (Table 1 to 4).

LEADERS' PERSONALITY

Past research identified several personality traits that are associated with discrepancy between self-other ratings. Professor Tim Judge and colleagues found in 2006 that leaders' personality traits, such as openness to experience, conscientiousness and narcissism all positively associate with enhanced self-rated leadership, while neuroticism was negatively related to self (but not other) ratings of leadership.[19] In another study, researchers found that those who tend to be dominant are also more likely to rate themselves higher than their subordinates, peers or supervisors do.[15]

Our studies found some similar results across different types of leadership ratings.

NARCISSISM

Narcissism is a grandiose sense of self-importance.[19] People who score high on narcissism tend to have a stronger sense of self-entitlement, prefer to lead and dominant others, believe they are better than others and love to be (and think they should be) admired.[20] Therefore, it is reasonable to assume that narcissistic individuals will give themselves high leadership ratings, thus having high self-other rating discrepancies. In our study, of all five leadership abilities we measured, narcissism significantly predicts self-other rating differences on initiating structure, not the other leadership abilities. We found that narcissism is positively related to self-rated initiating structure, but it is negatively related to subordinate ratings of the same ability (Table 4). Therefore, narcissistic leaders showed low self-awareness by overestimating their abilities to initiate structure.

These findings can be tied back to narcissists' grandiose sense of self-importance, that they only care about whether or not they have power over others (initiating structure), but they don't really care about showing empathy or consideration for others (consideration, ethical leadership), helping others to grow (intellectual stimulation) or motivating others (articulating vision).[21,22]

THE BIG FIVE PERSONALITY TRAITS

Our study supported some of the findings from past research.

Neuroticism, which describes a person's tendency to be volatile in emotions and likely to withdrawal when faced with certain emotional situations,[23] was found to be predict a person's likelihood to underestimate themselves due to their lack of security and an inclination to be anxious. Our study found that leaders who score high on neuroticism only underestimate their ability to articulate vision (Table 1).

Extraversion describes a person who is outgoing, talkative, sociable and likes to dominate a social situation.[23] We found that extraverted leaders are more likely to overestimate their abilities on showing consideration and performing ethical leadership. More specifically, even though a leader's self-rating of extraversion is not related to these two leadership abilities, it is significantly and negatively related to both subordinates-rated consideration (Table 3) and ethical leadership (Table 5).

Although past research has found a positive relationship between extraversion and showing consideration to subordinates,[24] it is possible that the dominant and talkative nature of an extroverted leader can sometimes make his/her subordinates feel that their voices are not properly listened to and their needs are not cared for.

Openness to experience is about a person's creativity, artistic tastes, imagination and intellectual quickness.[23] Similar to Professor Judge's past findings,[19] we found that openness to experience is related to one's propensity to overestimate one's leadership abilities on articulating vision (Table 1) and intellectual stimulation (Table 2).

Such results are due to the fact that although high-openness leaders are intelligent and have creative ideas, their quick wits and thought processes can prohibit their abilities to clearly communicate with others, wait for others to catch up, or give clear and specific goals.[25]

Agreeableness is the personality trait featuring one's tendency to be warm, cooperative, modest, empathetic, altruistic and tender.[23] Agreeable individuals prefer to get along and try to avoid confrontation. Our analyses showed that agreeable leaders are more likely to only overestimate their leadership ability of showing consideration, such that leaders' self-rated agreeableness is highly related to their self-rated, but not to other-rated, consideration.

Maybe in the subordinates' eyes, being too agreeable does not equal showing consideration, especially in situations where the leaders need to confront others to back them up or make the difficult decisions to guide them despite what others say.

Conscientiousness describes one's propensity of being efficient, self-disciplined, dutiful, orderly and cautious.[23] In consistence with past research findings, our results showed that conscientious leaders tend to overrate their leadership abilities. More specifically, they like to overestimate their abilities in initiating structure and ethical leadership.

Highly conscientious leaders are disciplined, industrious and diligent individuals. As a result, they can show little agreeableness and be overly critical of their subordinates' performance.[26] They can also overly emphasize the importance of working hard and high performance — or even force others to go beyond their job descriptions or achieve certain goals at all costs. Consequently, their subordinates can see them as less structural or ethical for not following the formal organizational disciplinary.

LEADER SELF-AWARENESS AND LEADERSHIP EFFECTIVENESS

The authors also tested the effects of a leader's self-awareness on the five leadership abilities (articulating vision, intellectual stimulation, consideration, initiating structure and ethical leadership) on one's leadership effectiveness rating provided by his/her direct supervisor. Moreover, we examined the degree of agreement (how similar the scores are) and disagreement (how different the scores are) of self-other ratings of leadership at the same time.

Polynomial regression with response surface analyses were conducted to examine the effects of leaders' self-awareness on their leadership effectiveness ratings from their supervisors. Since leaders' IQ, rank and gender can potentially affect their leadership effectiveness ratings (in a way that leaders who have higher IQ, have higher rank or are females tend to have higher effectiveness ratings[27,15]), we controlled the impacts of these three variables during our analyses. The results are presented in Table 6.

We found that leaders' self-awareness on three of the five leadership abilities tested are significant predictors of supervisor-rated leadership effectiveness:

ARTICULATING VISION

A leader is seen as effective when his/her self-other ratings of articulating vision are both high and in agreement. When both the leaders and their subordinates agree that the leaders perform poorly at articulating vision, these leaders are likely to receive low leadership effectiveness ratings from their supervisors.

CONSIDERATION

When a leader overestimates his/her ability in showing consideration, it decreases one's leadership effectiveness in his/her supervisor's eyes. On the other hand, when a leader underestimates his/her ability in showing consideration, it increases one's leadership effectiveness ratings from the supervisor.

This can be because when a leader thinks he/she is not considerate enough, he/she will more than likely go out of his/her way to look out for and care for their employees. Such extra efforts will in turn lead to higher effectiveness ratings from their supervisors.

ETHICAL LEADERSHIP

A leader's effectiveness rating is high when he/she agrees with his/her subordinates that they have high ethical leadership ratings and vice versa. However, when leaders think they perform poorly at being ethical leaders, even if their subordinates give them higher ethical leadership ratings than those they gave themselves, they receive poor leadership effectiveness ratings from their supervisors none the less.

CONCLUSION

Results from the current study not only identified multiple personal factors that can affect one's judgement of personal characteristics, they also indicate that self-awareness is very important for becoming an effective leader, and leaders' self-awareness on different aspects of leadership abilities can lead to different outcomes.

To improve a leader's self-awareness, the leader should first know his/her own personality and understand that these personality traits can prohibit him/herself from correctly assessing their own leadership abilities in certain areas. It is also important to regularly assess and seek feedback from others in terms of one's leadership performance, know one's own strengths and weaknesses, and work toward improvement. Last but not least, leaders should use only assessment tools that are scientifically validated to accurately assess personal traits and abilities and make references, because making the wrong references about one's abilities and performance can cost individuals opportunities for self-improvement and further hurts one's self-awareness.

ABOUT THE AUTHOR

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Table 1

Multivariate Regressions Predicting Self-Rating and Subordinate Ratings of Articulating Vision

	Self-Rated Articulating Vision			Other-Rated Articulating Vision			S-O Difference
	B	Partial η^2	β	B	Partial η^2	β	Wilk's λ (F)
Rank	.02	.01	.07	.06*	.03	.18*	2.10
Age	.00	.00	-.04	.00	.00	-.05	0.34
Gender	.20*	.03	.14*	.18	.01	.12	2.82
IQ	-.04**	.07	-.24**	.01	.00	.04	6.13**
Narcissism	.32*	.04	.19*	-.02	.00	-.01	2.97
Neuroticism	-.28**	.07	-.25**	-.16	.01	-.12	5.67**
Extraversion	.05	.00	.05	-.11	.01	-.10	0.92
Openness	.46**	.12	.34**	.23	.02	.14	10.17**
Agreeableness	-.07	.00	-.03	-.04	.00	-.02	0.17
Conscientiousness	.08	.00	.06	-.09	.00	-.05	0.49

Note. B = unstandardized regression coefficient from multivariate regression. Partial η^2 = unique variance explained by independent variable. Wilk's λ = difference between coefficient estimates for self and subordinates' ratings (distributed as F-statistic). β = standardized regression coefficient from univariate OLS regression.

* $p < .05$. ** $p < .01$.

Table 2

Multivariate Regressions Predicting Self-Rating and Subordinate Ratings of Intellectual Stimulation

	Self-Rated Intellectual Stimulation			Other-Rated Intellectual Stimulation			S-O Difference
	B	Partial η^2	β	B	Partial η^2	β	Wilk's λ (F)
Rank	.01	.00	.03	.04	.01	.03	0.86
Age	.00	.00	.00	.00	.01	.01	0.45
Gender	.21†	.02	.11*	.32	.04	.12*	4.33*
IQ	-.01	.01	.01	.00	.00	.01	0.84
Narcissism	.18	.01	.15	-.21	.01	.18	1.63
Neuroticism	-.14	.01	.10	-.10	.00	.12	1.07
Extraversion	.07	.00	.09	-.08	.00	.11	0.75
Openness	.63**	.15	.12**	.22	.02	.14	12.84**
Agreeableness	-.12	.00	.15	-.03	.00	.17	0.34
Conscientiousness	-.03	.00	.13	-.17	.01	.15	0.61

Note. B = unstandardized regression coefficient from multivariate regression. Partial η^2 = unique variance explained by independent variable. Wilk's λ = difference between coefficient estimates for self and subordinates' ratings (distributed as F-statistic). β = standardized regression coefficient from univariate OLS regression.

* $p < .05$. ** $p < .01$. † $p = .051$.

Table 3

Multivariate Regressions Predicting Self-Rating and Subordinate Ratings of Consideration

	Self-Rated Consideration			Other-Rated Consideration			S-O Difference
	B	Partial η^2	β	B	Partial η^2	β	Wilk's λ (F)
Rank	.00	.00	.00	.02	.01	.08	0.43
Age	.00	.01	-.05	-.01	.02	-.15	1.65
Gender	.16*	.04	.21**	.18*	.03	.17*	5.12*
IQ	-.01	.01	-.08	.00	.00	.01	0.53
Narcissism	-.07	.00	-.04	-.03	.00	-.02	0.33
Neuroticism	.01	.00	.01	-.02	.00	-.02	0.04
Extraversion	.07	.01	.12	-.15*	.03	-.20*	3.43*
Openness	.15*	.03	.16*	.03	.00	.03	2.34
Agreeableness	.26**	.06	.28**	.01	.00	.01	4.99*
Conscientiousness	.04	.00	.06	-.07	.00	-.06	0.40

Note. B = unstandardized regression coefficient from multivariate regression. Partial η^2 = unique variance explained by independent variable. Wilk's λ = difference between coefficient estimates for self and subordinates' ratings (distributed as F-statistic). β = standardized regression coefficient from univariate OLS regression.

* $p < .05$. ** $p < .01$.

Table 4

Multivariate Regressions Predicting Self-Rating and Subordinate Ratings of Initiating Structure

	Self-Rated Initiating Structure			Other-Rated Initiating Structure			S-O Difference
	B	Partial η^2	β	B	Partial η^2	β	Wilk's λ (F)
Rank	-.04*	.03	-.15*	-.03	.01	-.13	2.77
Age	.00	.00	.01	.00	.00	-.05	0.15
Gender	.20*	.05	.20**	.23**	.06	.25**	6.79**
IQ	.00	.00	-.03	.00	.00	.04	0.24
Narcissism	.24*	.03	.17*	-.12	.01	-.10	3.36*
Neuroticism	.12	.02	.17*	.03	.00	.04	1.41
Extraversion	.03	.00	.05	.00	.00	.01	0.13
Openness	.09	.01	.09	.05	.00	.05	0.63
Agreeableness	.05	.00	.06	-.03	.00	-.03	0.19
Conscientiousness	.42**	.12	.35**	.17	.02	.15	10.41**

Note. B = unstandardized regression coefficient from multivariate regression. Partial η^2 = unique variance explained by independent variable. Wilk's λ = difference between coefficient estimates for self and subordinates' ratings (distributed as F-statistic). β = standardized regression coefficient from univariate OLS regression.

* $p < .05$. ** $p < .01$.

Table 5

Multivariate Regressions Predicting Self-Rating and Subordinate Ratings of Ethical Leadership

	Self-Rated Ethical Leadership			Other-Rated Ethical Leadership			S-O Difference
	B	Partial η^2	β	B	Partial η^2	β	Wilk's λ (F)
Rank	.00	.00	-.02	.03	.01	.11	0.81
Age	.00	.00	.05	.00	.00	-.04	0.26
Gender	.08	.01	.12	.20*	.03	.17*	3.08*
IQ	.00	.00	.00	.00	.00	.04	0.08
Narcissism	.00	.00	.00	.00	.00	.00	0.00
Neuroticism	.04	.00	.08	-.12	.01	-.11	1.10
Extraversion	.01	.00	.02	-.22**	.05	-.26**	3.59*
Openness	.09	.01	.12	.09	.00	.07	1.45
Agreeableness	.15*	.03	.19*	.08	.00	.06	2.37
Conscientiousness	.21**	.07	.27**	-.12	.01	-.09	5.78**

Note. B = unstandardized regression coefficient from multivariate regression. Partial η^2 = unique variance explained by independent variable. Wilk's λ = difference between coefficient estimates for self and subordinates' ratings (distributed as F-statistic). β = standardized regression coefficient from univariate OLS regression.

* $p < .05$. ** $p < .01$.

Table 6.
Self-Other Rating Discrepancy as Predictor of Supervisor-Rated Leadership Effectiveness

Dependent Variable	Supervisor Rated Leadership Effectiveness									
Predictors	Articulating Vision		Intellectual Stimulation		Consideration		Initiating Structure		Ethical Leadership	
	b	se	*b*	se	*b*	se	*b*	se	*b*	se
Constant	3.50**	.43	3.73**	.44	3.45**	.59	3.43**	.47	.95	1.30
Rank	.02	.01	.02	.03	.02	.02	.03	.03	.02	.01
IQ	-.06	.11	.01	.01	.02	.01	.02	.01	.02	.02
Gender	.32	.11	-.02	.11	-.05	.11	.03	.12	-.01	.11
Other-Rated	.05**	.15	.27*	.10	.75*	.37	.04	.32	.69	.46
Self-Rated	-.14	.08	-.08	.14	-.68	.58	-.14	.28	2.83	1.46
Other-Rated Squared	-.07	.13	-.15	.08	-.09	.16	.11	.21	-.21	.12
Other-Rated X Self-Rated	.10	.09	.02	.12	-.36	.28	-.11	.33	-.03	.26
Self-Rated Squared	.02	.02	.03	.07	.52*	.23	.10	.19	-.85	.44
R^2	.12*		.09		.12*		.04		.12*	
Surface tests										
a_1	.37*		.19		.07		-.10		3.52*	
a_2	-.12		-.10		.07		.11		-1.09*	
a_3	.27		.35*		1.43*		.18		-2.14	
a_4	.03		-.14		.80		.32		-1.03*	

Note: N = 171
$a_1 = (b_1 + b_2)$, where b_1 is beta coefficient for other rated leader behavior and b_2 is beta coefficient for self-rated leader behavior.
$a_2 = (b_3 + b_4 + b_5)$, where b_3 is beta coefficient for other-rated leader behavior squared, b_4 is beta coefficient for the cross-product of other and self-rated leader behavior, and b_5 is beta coefficient for self-rated leader behavior squared.
$a_3 = (b_1 - b_2)$.
$a_4 = (b_3 - b_4 + b_5)$
b = unstandardized regression coefficient, se = standard error.
* $p < .05$, ** $p < .01$

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REFERENCES

[1] Atwarter, L.E., & Yammarino, F.J. (1992). Does self-other agreement on leadership perceptions moderate the validity of leadership and performance predictions? *Personnel Psychology, 45,* 141-164.

[2] Van Velsor, E., Talyor, S., & Leslie, J.B. (1993). An examination of the relationships among self-perception accuracy, self-awareness, gender, and leader effectiveness. *Human Resource Management, 32*, 249-263.

[3] Bass, B., & Yammarino, F. J. (1991). Congruence of self and others' leadership ratings of naval officers for understanding successful performance. *Applied Psychology: An International Review, 40*, 437−454.

[4] Atwater, L. E., & Yammarino, F. J. (1997). Self–other rating agreement: A review and model. *Research in Personnel and Human Resources Management, 15*, 121–174

[5] Tornow, W.W. (1993). Perceptions or reality: Is multi-perspective measurement a means or an end? *Human Resource Management, 32*, 221-230.

[6] Fleenor, J.W., Smither, J.W., Atwater, L.E., Braddy, P.W., & Sturm, R.E. (2010). Self-other rating agreement in leadership: A review. *The Leadership Quarterly, 21,* 1005-1034.

[7] Amundsen, S., & Martinsen, Ø. L. (2014). Self–other agreement in empowering leadership: Relationships with leader effectiveness and subordinates' job satisfaction and turnover intention. *The Leadership Quarterly*, *25*, 784-800.

[8] Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *The Leadership Quarterly, 1*, 107-142.

[9] Bass, B. M. (1985). *Leadership and performance beyond expectations.* New York: Free Press.

[10] Avolio, B.J., Bass, B.M., & Jung, D.I. (1999). Re-examining the components of transformational and transactional leadership using the multifactor leadership questionnaire. *Journal of Occupational and Organizational Psychology, 72*, 441-462.

[11] Halpin, A.W. (1957). Manual for the Leader Behavior Description Questionnaire. Columbus, OH: The Ohio State University. Retrieved from: https://fisher.osu.edu/supplements/10/2862/1962%20LBDQ%20MANUAL.pdf

[12] Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes, 97,* 117-134.

[13] Ostroff, C., Atwater, L.E., & Feinberg, B.J. (2004). Understanding self-other agreement: A look at rater and ratee characteristics, context, and outcomes. *Personnel Psychology, 57*, 333-375.

[14] Gomez, J.C. (2006). Mutual awareness. In S.T., Parker, R.W, Mitchell, & M.L., Boccia (Eds.), *Self-awareness in animals and humans: Developmental perspectives* (pp. 61-80). Cambridge University Press.

[15] Vecchio, R. P., & Anderson, R. J. (2009). Agreement in self–others' ratings of leader effectiveness: The role of demographics and personality. *International Journal of Selection and Assessment, 17*, 165−179.

[16] Brutus, S., Fleenor, J. W., & McCauley, C. D. (1999). Demographic and personality predictors of congruence in multi-source ratings. *The Journal of Management Development, 18,* 417−435.

[17] Eagly, A. H., Johannesen-Schmidt, M. C., & Van Engen, M. L. (2003). Transformational, transactional, and laissez-faire leadership styles: A meta-analysis comparing women and men. *Psychological bulletin*, *129*, 569-591.

[18] Vecchio, R. P., & Anderson, R. J. (2009). Agreement in self–others' ratings of leader effectiveness: The role of demographics and personality. *International Journal of Selection and Assessment, 17*, 165−179.

[19] Judge, T.A., LePine, J.A., & Rich. B.L. (2006). Loving yourself abundantly: Relationship of the narcissistic personality to self-and other perceptions of workplace deviance, leadership, and task and contextual performance. *Journal of Applied Psychology, 91*, 762-775.

[20] Raskin, R., & Hall, C. S. (1981). The narcissistic personality inventory: Alternate form reliability and further evidence of construct validity. *Journal of Personality Assessment, 45,* 159–162.

[21] Lannin, D. G., Guyll, M., Krizan, Z., Madon, S., & Cornish, M. (2014). When are grandiose and vulnerable narcissists least helpful? *Personality and Individual Differences*, *56*, 127-132.

[22] Campbell, W. K., Hoffman, B. J., Campbell, S. M., & Marchisio, G. (2011). Narcissism in organizational contexts. *Human Resource Management Review*, *21*, 268-284.

[23] DeYoung, C.G., Quilty, L.C., & Peterson, J.B. (2007). Between facets and domains: 10 aspects of the big five. *Journal of Personality and Social Psychology, 93*, 880-896.

[24] Bono, J.E., & Judge, T.A. (2004). Personality and transformational and transactional leadership: A meta-analysis. *Journal of Applied Psychology, 89*, 901-910.

[25] Judge, T.A., Piccolo, R.F., & Kosalka, T. (2009). The bright and dark sides of leader traits: A review and theoretical extension of the leader trait paradigm. *The Leadership Quarterly, 20*, 855-875.

[26] Hogan, R., & Hogan, J. (2001). Assessing leadership: A review from the dark side. *International Journal of Selection and Assessment, 9*, 12-23.

[27] Antonakis, J. (2004). On why “emotional intelligence” will not predict leadership effectiveness beyond IQ or the “big five”: An extension and rejoinder. *Organizational Analysis*, *12*, 171-182.