How self-leaders are perceived on the Big Five

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ABSTRACT
The present study elucidates how self-leaders are perceived by others by investigating which traits are ascribed to them. Participants (student dyad sample, \(N = 186\)) provided self-ratings on self-leadership and peer-ratings on the Big Five after working together on a cooperative task. Self-rated self-leadership was associated with other-rated Big Five traits to investigate how self-leaders are described by others. Results indicated that self-leaders were mostly described with agentic traits (extraversion, openness) and that this was primarily driven by natural reward strategies. Natural reward strategies play a crucial role in self-leadership perceptions which is an important finding for future self-leadership studies.

Keywords
Self-leadership – Big Five

1 Introduction
Self-leaders1 describe themselves as extraverted and open (Furtner & Rauthmann, 2010), but it remains unclear whether others also ascribe them such traits. If so, this would validate the self-ratings of self-leaders as they would be shared to some degree with other people's ratings. The current work investigates which Big Five traits are ascribed to self-leaders in a student sample and which self-leadership dimensions are crucial to self-leadership perceptions of others.

1.1 Self-leadership
Self-leadership is defined as „the process of influencing oneself“ (Neck & Manz, 2010, p. 4) and contains three primary dimensions (e.g., Houghton & Neck, 2002; Manz, 1986): behavior-focused strategies (self-goal setting, self-reward, self-punishment, self-observation, self-cueing), natural reward strategies, and constructive thought pattern strategies (visualizing successful performance, self-talk, evaluating beliefs and assumptions). Behavior-focused strategies accomplish active change of thoughts and behavior. Particularly self-goal setting and self-observation are rooted in the control and self-regulation theory of Carver and Scheier (1998): discrepancies between current and desired states are recognized, and behavioral change towards desired states is then activated via self-goal setting, initiating goal-pursuit and reduction of perceived discrepancies. Thus, the (self-)reflective abilities in self-leadership are key to performing and pursuing goals. Natural reward strategies accomplish a positive focus on rewarding elements of tasks. According to Neck and Manz (2010), two strategies can be used. First, attentional deployment can be used to defocus from unpleasant aspects of a task and focus on the pleasant ones (i.e., finding „naturally” inherent positive aspects). Second, task modification can be used to actively incorporate pleasant and (intrinsically) rewarding aspects into (otherwise unpleasant) tasks (i.e., generating „naturally” positive aspects) (cf. Neck & Houghton, 2006). Constructive thought pattern strategies accomplish a positive orientation of thoughts. Habitual patterns of thinking are recognized, reflected upon, and then steered towards desirable patterns (Furtner & Baldegger, 2013).

1.2 Self-leadership and personality
Empirical studies on relations among self-leadership and personality traits are scarce (e.g., Furtner & Rauthmann, 2010; Houghton, Bonham, Neck, & Singh, 2004; Neck & Houghton, 2006), yet there is an abundance

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1 The term „self-leader“ is used as an abbreviation for „people who score highly on the dimension of self-leadership“ (Manz, 1986).
of theoretical accounts of self-leadership-personality relations (e.g., Williams, 1997). Based on conceptual considerations, Williams (1997) stipulated self-leadership to be positively related to extraversion, openness to experiences, and conscientiousness (see also Williams, Verbie, Price, & Layne, 1995). Houghton et al. (2004) found positive associations of self-leadership with extraversion and conscientiousness, but they did not include the full Big Five traits (e.g., openness was missing). Furtner and Rauthmann (2010) used the entire Big Five and could show that self-leadership was primarily associated with extraversion and openness, two factors that form the super-ordinate meta-trait Beta or Agency (Digman, 1997), and conscientiousness. However, these strands of research are either purely theoretical (and thus conjecture as of yet) or only empirically investigated with self-ratings. Employing peer-ratings also could further strengthen the relationships found because there would be a „social reality“ to self-leaders claims of who and how they are (e.g., open, extraverted, etc.).

1.2.1 Relations between self-leadership and extraversion

Houghton et al. (2004) conjectured that more extraverted people who possess higher levels of positive affectivity, self-efficacy, and optimism (cf. Williams, 1997) should also show a tendency towards higher self-leadership (because of the generally positive and constructive outlook on things). Indeed, Neck and Manz (1996) could demonstrate that positive affectivity, self-efficacy, and optimism could be enhanced via self-leadership training. Extraversion is conceived as a multifaceted trait in personality literature (McCrae & Costa, 1989), with dimensions referring to dominance, power, and leadership (e.g., Buss, 1996; Hogan, Curphy, & Hogan, 1994; McAdams & Pals, 2006); sociability and gregariousness (e.g., Ashton & Lee, 2007; McCrae & Costa, 1997); dynamicity, liveliness, energy, activation, exploration, and approach (MacDonald, 1998; Nettle, 2006; van Lieshout, 2000); and positive affect (e.g., Watson & Clark, 1997). These characteristics add up to an extraverted person being described as a „pro-active go-getter“. This would link extraversion to self-leadership: self-leaders pro-actively and intrinsically motivated seek, monitor, and pursue their goals (Bandura, 1986; Furtner & Rauthmann, 2010, 2011; Neck & Houghton, 2006). Indeed, they describe themselves as agentic, that is, extraverted, dominant, energetic, and dynamic (Furtner & Rauthmann, 2010). Given that extraversion can be judged with only minimal information at zero-acquaintanceship with relatively high degrees of accuracy (Gosling, Ko, Mannarelli, & Morris, 2002; Kenny, 1994; Vazire, 2010) and that it pivotal in self-leadership, self-leadership should also be detectable to others.

**Hypothesis 1:** Self-leadership self-ratings should be positively associated with extraversion other-ratings.

1.2.2 Relations between self-leadership and openness

In self-ratings, self-leadership and openness are strongly associated (Furtner & Rauthmann, 2010). Openness is conceptualized as an agentic personality domain of ideas and problem-solving (Ashton & Lee, 2007; Buss, 1996); intellect (McAdams & Pals, 2006); curiosity and creativity (MacDonald, 1998; Nettle, 2006; van Lieshout, 2000); and deep experiencing (Costa & McCrae, 1992; McCrae & Costa, 1997). Self-leadership has also been associated with innovation and creativity (DiLiello & Houghton, 2006), and indeed openness seems to be crucial to self-leadership (Furtner & Rauthmann, 2010). Judging openness at zero-acquaintanceship is not easy and generally not very accurate (Borkenau & Liebler, 1992; Gosling et al., 2002; Kenny, 1994). While self-leaders may describe themselves as open individuals, it may not be the case that others can identify openness in them.

**Hypothesis 2:** Self-leadership self-ratings are weakly (if at all) associated with openness other-ratings.

1.2.3 Relations between self-leadership and conscientiousness

Conscientiousness is a domain that relies on self-regulatory control in order to suppress / inhibit short-term impulses and sustain long-term goal-pursuit with perseverance despite hindrances from the environment (Denissen & Penke, 2008). Thus it is frequently operationalized as a domain of planning, organizing, scheduling, and keeping order (Buss, 1996); (long-term oriented) goal-striving (Nettle, 2006); and working and performance (McAdams & Pals, 2006; van Lieshout, 2000). The domain of behavior-focused strategies contains self-goal setting, and self-leaders have been found to perseveringly pursue goals (Neck, Nouri, & Godwin, 2005) and show increased levels of individual performance (Prussia, Anderson, & Manz, 1998). Thus, self-leadership may be linked to conscientiousness (Furtner & Rauthmann, 2010; Houghton et al., 2004; Williams, 1997; Williams et al., 1995). Given that conscientiousness can be judged somewhat accurately at zero-acquaintance (Borkenau & Liebler, 1992; Gosling et al., 2002; Kenny, 1994) and that self-leaders report more conscientious behavior, conscientiousness might also be judgeable in self-leaders.

**Hypothesis 3:** Self-leadership self-ratings should be positively associated with conscientiousness other-ratings.
1.2.4 Relations between self-leadership and other trait domains
Self-leadership has also been associated with other traits (socio-emotional intelligence: Furtner, Rauthmann, & Sachse, 2010; Dark Triad: Furtner, Rauthmann, & Sachse, 2011; need for achievement: Furtner & Rauthmann, 2011), repeatedly highlighting it as an agentic domain. Above, we have outlined the importance of extraversion, openness, and conscientiousness. First, these relations with self-leadership hold only for self-ratings; it remains unclear as to whether they can be generalized to other-ratings also. Second, the role of communal traits (e.g., warmth, agreeableness) and emotional stability remain poorly explored as of yet because the focus has often been laid on associations with agentic traits (e.g., Furtner & Rauthmann, 2010; Houghton et al., 2004).

We expand existing literature by investigating how self-leaders are perceived by others regarding the entire Big Five, with rotated forms of Extraversion and Agreeableness spanning the interpersonal circumplex around Agency and Communion, respectively. This allows us to position self-leadership and its three strategy domains into the interpersonal circumplex to elucidate its interpersonal nature. Due to the agentic role of self-leadership in self-ratings, we derived the core hypothesis that self-leadership self-ratings should be positively associated with ratings of extraversion, openness, and conscientiousness from others.

2 Hypotheses
We investigated which other-rated Big Five traits are associated with self-rated self-leadership with a dyadic design in a student sample. We hypothesized that self-leaders should be described particularly as extraverted (Hypothesis 1) and conscientious (Hypothesis 3), but barely as open, intellectual, or deep-thinking (Hypothesis 2). Moreover, we expected that most relationships between ascribed traits and self-leadership would be driven by natural reward strategies because earlier studies have found that this dimension may be the most salient and consequential dimension of self-leadership (Furtner & Rauthmann, 2010; Furtner, Baldegger, & Rauthmann, 2012). Consequently, natural reward strategies could somehow „leak out“ and be behaviorally manifest, thus facilitating the (accurate) judgment of self-leaders’ traits (e.g., extraversion).

5 Methods

3.1 Participants and procedure
Hundred and eighty-six first-year psychology students (75.2 % females; mean age = 22.49 years, SD = 2.79, range: 19–34) interacted in 95 randomly assigned dyads in a controlled setting. Each dyad had to solve the NASA moon survival task (rank-ordering 15 items according to their importance when stranded on the moon and trying to get back to the base station; Hall & Watson, 1970) and subsequently provide self- and other-ratings on several traits. The mean level of acquaintance among participants was 5.8 (on a scale from 1 to 8), which is „minimal / short“ in accordance with Kenny (1994, p. 57).

The NASA moon survival task has been previously used in contexts of group processes and leadership to simulate opinion negotiation in managerial problems (e.g., Sundstrom, Busby, & Bobrow, 1997; Tabernero & Wood, 2009; Vecchio, 1982; Worchel, Jenner, & Hebl, 1998). The mean level of acquaintance among participants was 5.8 (from 1 I have never seen this person before to 8 we know each other well), which is „minimal / short“ in accordance with Kenny (1994, p. 57). After the NASA game, participants were instructed to depart from their interaction partner and sit somewhere else. They then completed measures on ratings about their interaction partner and themselves. This means that from 186 participants, each participant provided Big Five other- and self-leadership self-ratings. Students obtained credit points for participating.

3.2 Measures
Self-leadership was measured with a validated German version of Houghton and Neck’s (2002) original self-leadership scale (RSLQ-D; Andressen & Konradt, 2007), containing 27 items (e.g., „I establish specific goals for my own performance“ and „I usually am aware of how well I’m doing as I perform an activity“) to be answered on a five-point Likert-type scale (1 totally disagree – 5 totally agree).

The Big Five were measured with the Interpersonal Adjectives Scales Revised – Big Five (IASR-B5) by Trapnell and Wiggins (1990) with 124 adjectives to be rated on an eight-point Likert-type scale (1 extremely inaccurate – 8 extremely accurate). The inventory was generated upon grounds of the interpersonal circumplex with the axes Dominance (also: Extraversion, Agency) and Love (also: Agreeableness, Communion), with subscales (Dominance: assured-dominant, unassured-submissive, gregarious-extraverted, aloof-introverted; Love: unassuming-ingenuous, arrogant-calculating, warm-agreeable, cold-hearted). Neuroticism (reversed scored: Emotional Stability), Openness to ex-
periences, and Conscientiousness (which are all three not deemed interpersonal traits) were also included, but have no subfacets.

4 Results

Descriptive and correlational results can be found in Table 1. Correlations were computed between Person 1's self-rating on self-leadership and Person 2’s peer-rating on Big Five scales. As can be seen, primarily natural reward strategies were associated with Big Five scales. Specifically, they were positively related to Openness and Dominance traits, two agentic factors. It should be noted, however, that relations with natural reward strategies are underestimated due to its low reliability. Indeed, there were also significant correlations with Love, indicating associations with communal traits (e.g., agreeableness). Specifically, behavior-focused strategies (self-goal setting, self-punishment, self-cueing) were associated with warm personality traits. It should further be noted that particularly aloof-introverted was negatively related to most self-leadership scales indicating that observers ascribe self-leaders an extraverted behavioral style. This style, however, might not so much be driven by sociability or gregariousness, as indicated by only one significant correlation of gregarious-extraverted with natural reward strategies; rather, it seems that self-leaders have a lively, energetic, and dynamic manner which corresponds to low other-ratings on aloof-introverted. Thus, our hypothesis that self-leaders would be perceived primarily as agentic and that natural reward strategies would play a strong role was supported.

Table 1: Bivariate zero-order Pearson correlations between scores of self-leadership (self-leaders' self-ratings) with the Big Five (other ratings) (N = 186).

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>α</th>
<th>SL (g)</th>
<th>1</th>
<th>1a</th>
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<th>3a</th>
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<td>-.02</td>
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<td>Openness to Experiences</td>
<td>6.55</td>
<td>0.76</td>
<td>.78</td>
<td>.09</td>
<td>.12</td>
<td>.04</td>
<td>.05</td>
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<td>-.01</td>
<td>.02</td>
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<td>Conscientiousness</td>
<td>5.55</td>
<td>0.92</td>
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<td>.08</td>
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<td>.15</td>
<td>.07</td>
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<td>-.06</td>
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<td>.02</td>
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<td>Extraversion (Dominance)</td>
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<td>.01</td>
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<td>-.05</td>
<td>.04</td>
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<td>-.05</td>
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<td>unassured–submissive</td>
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<td>-.05</td>
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<td>-.19</td>
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<td>-.15</td>
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<td>Agreeableness (Love)</td>
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<td>5.25</td>
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<td>.79</td>
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<td>-.11</td>
<td>-.09</td>
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<td>-.14</td>
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<td>warm–agreeable</td>
<td>6.59</td>
<td>0.79</td>
<td>.86</td>
<td>.15</td>
<td>.19</td>
<td>.12</td>
<td>.05</td>
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<tr>
<td>cold–hearted</td>
<td>2.04</td>
<td>0.85</td>
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</table>

M     5.65  5.70  5.75  5.99  5.65  5.74  5.39  5.99  5.44  5.18  5.46  5.69
SD    0.52  0.59  0.84  0.98  0.97  0.71  1.07  0.58  0.66  0.89  0.87  0.75
α     .89  .84  .78  .95  .85  .72  .85  .40  .82  .72  .77  .77

Note. SL (g) = Global self-leadership, 1 = behavior-focused strategies, 1a = self-goal-setting, 1b = self-reward, 1c = self-punishment, 1d = self-observation, 1e = self-cueing, 2 = natural reward strategies, 3 = constructive thought pattern strategies, 3a = visualizing successful performance, 3b = self-talk, 3c = evaluating beliefs and assumptions.

*** p < .001, ** p < .01, p < .05, † p < .10.
Additionally, a multiple regression was run with behavior-focused, natural reward, and constructive thought pattern strategies as predictors and Agency and Communion as outcomes, respectively. The resulting beta values were projected onto a 2D-plane with the axes of Agency and Communion to position self-leadership in the interpersonal circumplex. As Figure 1 shows, natural reward strategies were associated with being seen as more agentic than behavior-focused and constructive thought pattern strategies, whereas behavior-focused strategies were perceived as more communal.

**Figure 1: Self-leadership in the interpersonal circumplex (as rated by others).**


5 Discussion

The present study was conducted to investigate how self-leaders are perceived by others. Self-leaders are perceived by others primarily on agentic traits such as extraversion and openness, and that relations are strongly driven by natural reward strategies. Thus, the study provides evidence that the perceptually most salient component of self-leadership may be natural reward strategies (Furtner, 2012; Furtner et al., 2012). This is the first study to show that behavior-focused strategies is associated with being seen as communal, which suggests that this self-leadership dimension differs from the other self-leadership dimensions in people's perceptions. Future studies should clarify why exactly (i.e., through which mediating cues and perceptual processes) this is the case.

We investigated interpersonal perception for self-leadership and addressed the following core question: How are self-leaders perceived on the Big Five? This gives insight into how self-leadership manifests in real-life contexts (here, in a semi-constrained, cooperative game situation). Findings yielded a crucial role of natural reward strategies, but further research must replicate, corroborate, and extend present findings. Several limitations should thus be addressed by future in-depth research. First, we used solely cross-sectional data which does not allow causal inferences. We could thus not estimate how and why perceptions of self-leaders were formed. Second, we did not include behavioral cues as mediators for self-observer correlations and thus cannot address which behaviors exactly account for people utilizing natural reward strategies as a proxy for self-leadership. We only know that natural reward strategies seem salient and somehow behaviorally manifest, but the process of how it
is judged is not understood. Third, we did not include consequences of perceptions. For example, prospective research should explore whether being seen as a self-leader also entails role model qualities as ascribed by others – and whether being seen as a self-leading role model may help to further self-leading skills in followers.

The findings of this work have theoretical and practical implications. We demonstrated the importance of natural reward strategies in self-leadership, which has also been verified elsewhere (e.g., Furtner, 2012; Furtner & Baldegger, 2015; Manz, 1986; Neck & Manz, 2010). Second, our findings could be used in self-leadership trainings and leader / leadership development programs in that we provide evidence on how self-leaders are seen by others. For example, natural reward strategies are a very important ability of a leader (Reichard & Johnson, 2011). With natural reward strategies leaders could increase their intrinsic motivation. Leading oneself can be seen as a prerequisite in leading others. To effectively lead others, one must be recognized by others as a leader and positive role model (Manz & Sims, 1991; Shamir et al., 1993). If a leader is ascribed agentic and positive traits via his or her self-leadership skills, we expect this leader can be more effective. Thus, leaders should be advised to reflect upon themselves and particularly enhance their natural reward strategies (i.e., selecting pleasant tasks, integrating positive elements into unpleasant tasks, defocusing unpleasant elements while focusing on pleasant ones in tasks, and seeing or making tasks themselves rewarding to oneself).

We provided first evidence that self-leaders not only ascribe themselves agentic traits (Furtner & Ruthmann, 2010), but are also ascribed agentic traits by others at minimal acquaintance. People exercising natural reward strategies seem to be particularly judged as self-leaders. The current study thus highlights the importance of natural reward strategies for perceptions of self-leadership.

References


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